NEEDS ASSESSMENT ON SEXUALITY AND REPRODUCTIVE HEALTH EDUCATION OF SECONDARY SCHOOL ADOLESCENTS IN YALA

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การประเมินความต้องการการศึกษาเรื่องเพศและสุขภาวะทางเพศ ของวัยรุ่นระดับมัธยมศึกษาตอนปลาย จังหวัดยะลา

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วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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Thesis Title	**NEEDS ASSESSMENT ON SEXUALITY AND REPRODUCTIVE HEALTH EDUCATION OF SECONDARY SCHOOL ADOLESCENTS IN YALA**
By	**Mr.Awirut Singkun**
Field of Study	**Public Health**
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อวิรุทธ์ สิงห์กุล : การประเมินความต้องการการศึกษาเรื่องเพศและสุขภาวะทางเพศของวัยรุ่นระดับมัธยมศึกษาตอนปลาย จังหวัดยะลา . (NEEDS ASSESSMENT ON SEXUALITY AND REPRODUCTIVE HEALTH EDUCATION OF SECONDARY SCHOOL ADOLESCENTS IN YALA) อ. ที่ปรึกษาวิทยานิพนธ์หลัก : ผศ.ดร.เขมิกา ยามะรัต, 97 หน้า.

ในปี 2553 มีการพบศพทารกกว่า 2,000 ศพ ถูกนำมาทิ้งที่วัดไผ่เงิน กรุงเทพ มหานคร ซึ่งเหตุการณ์ดังกล่าวควรมีการจัดการศึกษาเรื่องเพศและสุขภาวะทางเพศในวัยรุ่น เพื่อส่งเสริมและพัฒนาทักษะชีวิตของวัยรุ่น จังหวัดยะลาซึ่งอยู่ตอนใต้สุดของประเทศไทย มีปัญหาที่ส่งผลกระทบต่อการเรียน เนื่องจากสถานการณ์ความไม่สงบในพื้นที่ เหตุการณ์ดังกล่าวทำให้นักเรียนและครูถูกฆ่าหลายราย และโรงเรียนหลายแห่งในพื้นที่ต้องประกาศหยุด การศึกษานี้มีวัตถุประสงค์เพื่อศึกษาข้อมูลทั่วไป การยอมรับพฤติกรรมเสี่ยง ทัศคติต่อการมีเพศสัมพันธ์ก่อนแต่งงาน ประเมินการเรียนรู้เรื่องเพศและสุขภาวะทางเพศในปัจจุบัน และความต้องการเรียนรู้เรื่องดังกล่าวตามความคาดหวังของวัยรุ่นระดับมัธยมศึกษาตอนปลายในจังหวัดยะลา จำนวน 393 ราย โดยใช้แบบสอบถามและนักเรียนเป็นผู้ตอบแบบสอบถามด้วยตนเอง ผ ลการศึกษาพบว่าวัยรุ่นส่วนใหญ่เป็นเพศหญิง ร้อยละ 60.8 อายุเฉลี่ย 17.3 ปี นับถือศาสนาพุทธ ร้อยละ 64.6 ศึกษาในระดับมัธยมศึกษาปีที่ 6 ร้อย 36.6 อาศัยอยู่ที่บ้าน ร้อยละ 74.6 ส่วนใหญ่อาศัยอยู่กับบิดา มารดา ร้อยละ 69.2 วัยรุ่นพูดคุยปรึกษาเรื่องเพศและสุขภาวะทางเพศกับเพื่อน ร้อยละ 81.9 ยอมรับพฤติกรรมเสี่ยง ในระดับปานกลาง ร้อยละ 64.1 มีทัศนคติต่อการมีเพศสัมพันธ์ก่อนแต่งงาน ระดับปานกลาง ร้อยละ 71.2 การทดสอบความสัมพันธ์ของปัจจัยที่ศึกษา กับความต้องการการศึกษาเรื่องเพศและสุขภาวะทางเพศของวัยรุ่น พบว่า ศาสนามีความสัมพันธ์กับความคาดหวังการศึกษาเรื่องเพศ อย่างมีนัยสำคัญทางสถิติ (p-value < 0.05) การยอมรับพฤติกรรมเสี่ยง และทัศนคติต่อการมีเพศสัมพันธ์ก่อนแต่งงาน มีความสัมพันธ์กับความต้องการศึกษาสุขภาวะทางเพศ อย่างมีนัยสำคัญทางสถิติ (p-value < 0.05) บุคคลที่นักเรียนพูดคุยเรื่องเพศและสุขภาวะทางเพศ แหล่งข้อมูลเรื่องเพศและสุขภาวะทางเพศ ระดับของการได้รับการศึกษาเรื่องเพศและสุขภาวะทางเพศในปัจจุบัน มีความสัมพันธ์กับความคาดหวังการศึกษาเรื่องเพศและสุขภาวะทางเพศอย่างมีนัยสำคัญทางสถิติ (p-value < 0.05) ควรมีการจัดกิจกรรมการเรียนรู้เรื่องเพศและสุขภาวะทางเพศเพื่อส่งเสริมให้นักเรียนตระหนักถึงความเสี่ยงและผลกระทบ และควรมีการวิจัยเชิงคุณภาพสำหรับการศึกษาครั้งต่อไป

สาขาวิชา สาธารณสุขศาสตร์ ลายมือชื่อนิสิต.....

ปีการศึกษา 2555 ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

5279144453 : MAJOR PUBLIC HEALTH
KEYWORDS : NEEDS ASSESSMENT / REPRODUCTIVE HEALTH / SEXUALITY HEALT / ADOLESCENT

AWIRUT SINGKUN : NEEDS ASSESSMENT ON SEXUALITY AND REPRODUCTIVE HEALTH EDUCATION OF SECONDARY SCHOOL ADOLESCENTS IN YALA. ADVISOR : ASST. PROF. KHEMIKA YAMARAT, Ph.D., 97 pp.

In 2010 more than 2000 illegally aborted fetuses were found at the Phai Ngern temple in Bangkok. Sexuality and reproductive health should be provided for adolescents to develop their life skills. Yala is a province in the southernmost of Thailand where have some problems on learning system because of the Southern unrest. Students and teachers were killed and many schools were shut down. Cross-sectional study aims to study socio-demographic, risk behaviors acceptance, attitudes toward premarital sex, current met need and felt needs on sexuality and reproductive health education of 393 secondary school adolescents in Yala by self-administered questionnaires. The results found that most subjects were female (60.8%), age mean 17.3 years old, their religion is Buddhism (64.6%), studied in Grade 12 (36.6%), stayed in their home as a current resident (74.6%) and most of them lived with their father/mother (69.2%). They most discussed about sexual and reproductive health with their friends (81.9%). They accepted risk behaviors in moderate level (64.1%). Most students had neutral attitudes toward premarital sex in neutral level (71.2%). Chi-square was used to analyze and found that person who students discussed with, risk behaviors acceptance, attitudes toward premarital sex, sources of information, current met need on reproductive and sexuality health education were significantly relation to their felt needs on reproductive health education (p-value <0.05) and religion, person who students discussed with, risk behaviors acceptance, sources of information, current met need on reproductive and sexuality health education were significantly relation to their felt needs on sexuality health education (p-value <0.05). Learning programs should be conducted to make students be aware of risk and complication outcome. Further study, the qualitative study should be implementation.

Field of Study : Public Health ..... Student's Signature .....

Academic Year : 2012 ..... Advisor's Signature .....

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LIST OF ABBREVIATIONS

CDC	The Centre for Disease Control
HIV	Human Immunodeficiency Virus
ICPD	The International Conference on Population and Development
IOC	Item Objective Congruence
MOPH	The Ministry of Public Health
RTIs	Reproductive Tract Infections
SRH	Sexual and Reproductive Health
STIs	Sexually Transmitted Diseases Infections
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNFPA	The United Nations Population Fund
WHO	World Health Organization

CHAPTER I
INTRODUCTION

1.1 Background and Rationale

In 2010, Thailand was recovering from the shock caused by the appalling recent discovery of more than 2000 illegally aborted fetuses at Phai Ngern temple in Bangkok (Chambers, 2010). The discovery of even one dead fetus usually generates strong condemnation in the country, especially from conservative circles. The dead fetus horror was merely the 'tip of Thailand's illegal abortion iceberg.' It's estimated that around 150,000 to 200,000 women every year across the country were going to private clinics for illegal abortions (Palatino, 2010). Induced abortion is illegal in Thailand. It is only permitted if the induced abortion is performed by physicians for two conditions: when the health of the women is at risk due to pregnancy; and the women get pregnant as a result of rapes (Reproductive Health Division, 2003).

Thailand is a Buddhist country, and many people are generally conservative on sexual matters. Though there is a thriving sex industry here and birth control is widely available, advocates for safe sex education say many young people are ill informed on the subject (Palatino, 2010). In Thailand, the maintenance of reproductive health is a problem, since young people are engaging in sexual activity at a younger age and have had sex without protection (Deepasert, 2006). In addition, a study in USA found that young people learned about sex from their friends or through the media, such as the Internet, television, and movies. It appears that parents were failing to discuss sex with their child (Creel and Perry, 2002). Reproductive Health and HIV education programs in USA based on written curricula can increase knowledge, shift attitudes, enhance skills, and change behaviors to prevent pregnancy and HIV infection among in-school and out-of-school youth (Mahua, 2007). A study in Tehran, Iran indicated that sexual experience was associated with older age, access to satellite television, alcohol consumption, that are the strongest predictors of sexual experience (Mohammad et al., 2006). A study in Kenya reported that socio-demographic, behavioral, and psychosocial factors associated with heterosexual activity among a sample of high-school students. Sexual activity was associated with various factors including religiosity, perceived parental attitudes towards sex, living arrangements, and school characteristics (Kabiru and Orpinas, 2009). Problems

relating to reproductive health in adolescents stem from lack of knowledge, inappropriate personal hygiene habits, and the common practice of self-care over consulting a qualified physician to prevent humiliation (UN, 1995). Sexual and reproductive health requires knowledge of normal physiology and development as well as communication skills that assist people in making informed and responsible decisions (Shaw, 2009).

The irony of the controversy around sexuality education in public schools in USA is the incompatibility between current policies and prevailing opinions among adults and youth (Eisenberg, 2008). Moreover, a study in China conduct by Lou et al. (2008) found that sexual education in schools and societies is still largely ignored currently because of the cultural taboo inhibiting discussion on sexual matters and worrying sexual education would promotes promiscuity and sexual behavior of adolescents as well as the competition for students to enter key high schools or universities. Therefore, most of school students in the country have no chance to accept sexual education. Sexual education program that most schools in China currently provide are superficial and not met students' needs, as it mainly covers basic knowledge of adolescent development and psychology and sex morals but few information on contraception, reproductive health services and skills development. In addition, it was generally conducted in traditional and passive manner, which couldn't hold students' attention. So, adolescents and young people in China still lack basic reproductive health knowledge and skills to prevent the adverse health consequences of premarital sex. As a result, there has been a marked increase in the number of unplanned pregnancy and induced abortion among unmarried young people. There is also an upsurge in the incidence of sexually transmitted infection (STIs) and HIV infection in the country (Lou et al., 2008). The increase in youth sexual activity coupled with the barriers to access to reproductive health information and services have led to a number of problems in Thailand (UNFPA, 2005). Sexually active adolescents place themselves at risk of a sexual transmitted infection (STIs) when they engage in unprotected sex. The context in which adolescents become sexually active influences how they deal with sexual relationships, the extent to which they are able to protect themselves and how they perceive the unwanted outcomes of sex (WHO, 2004). It is important to consider the links between health and human rights broadly when relating to adolescents and youth because many of the social

determinants are also articulated as rights—the rights to education, information, housing, and social security (Shaw, 2009).

Globalization lead the changes of our society and cause of many problems related to sexuality and reproductive health and most problems occurred in teenagers. These problems affect not only teenagers themselves but also their family and social. One of all reasons was an inappropriate behaviors in reproductive health is education system (Shaw, 2009).

Yala is a province in the Southernmost of Thailand with a Muslim majority populations (75.5%). There was a study of sexual behaviors of vocational students in Yala municipality found that they used to have sexual intercourse about 26.2% (Awatip Wae, 2006). Universal access to basic education is one of the most important Millennium Development Goals. Education is a vital prerequisite for protecting children from sexual exploitation (UNICEF, 2006). The appropriate program and well management in reproductive health may make adolescents have suitable behaviors (Greer, 2009). However, there have some problems on learning system because of the Southern unrest. Insurgent efforts to kill and intimidate teachers, burn schools, and undermine the secular educational system (Abuza, 2011: 23). Since the insurgency began, at least 30 school students were killed and 92 injured due to violence in the affected provinces between January 2004 and December 2007 (Nattha Keenapan, UNICEF Thailand, 2009) and more than 140 teachers have been killed between December 2008 and June 2011, causing 465 schools across the three provinces to shut down (Abuza, 2011: 11). Little is known about the reproductive health needs of young people (Mohammad et al., 2006). More importantly needs assessment of adolescents is crucial for improve adolescents' knowledge and skills appropriate to enabling them to have healthy development and prevent health problems, and to increase access to health services to meet their needs (Aree Prohmmo, 2007). That, before conducting the appropriated program for them, needs assessment on reproductive and sexuality health education should be conducted.

1.2 Research Questions

1.2.1 What are the adolescents needs on sexuality and reproductive health education?

1.2.2 What factors are associated with adolescents needs on sexuality and reproductive health education?

1.3 Objectives

1.3.1 To study socio-demographic characteristics of secondary school adolescents in Yala.

1.3.2 To study risk behaviors acceptance of secondary school adolescents in Yala.

1.3.3 To study attitudes toward premarital sex of secondary school adolescents in Yala.

1.3.4 To study sources of information on sexuality and reproductive health of secondary school adolescents in Yala.

1.3.5 To explore current met needs and adolescents' felt needs on sexuality and reproductive health education of secondary school adolescents in Yala.

1.3.6 To study factors related to adolescents' needs on sexuality and reproductive health education of secondary school adolescents in Yala.

1.4 Hypothesis

There are relationship between socio-demographic characteristics (gender, age, religion, school level, current resident, person who students live with, person who students discuss on sexuality and reproductive health with), social and sexual risk behaviors, attitudes toward premarital sex, med needs on reproductive and felt needs on sexuality and reproductive health education.

1.5 Expected Benefit and Application

This study could be useful for policy makers, program planners and educators to better understand and assess the needs of adolescents in order to develop appropriate need-based educational programs related to sexual and reproductive health for young people. The results of this study would inform whom it may concern such as the director of the organization, board of administrators committee, and the department of students development and skills improvement. Moreover, the finding outcomes can be used as fundamental information in order to demonstrate effectiveness of several reproductive health education topics that may be an important broadening support and successfully adopting appropriate curriculum demonstrably effective reproductive health education. Organization, school, and person involved in adolescence should intervene in adolescence health behaviors in various ways such as

political control of mass media encouraging sexual behavior, place of amusement, development of sexual education program, counseling program for adolescence, health service system focus on adolescence, as well as, development of parental skills of adolescence care. Those strategy activities may affect to positive sustainable of sexual health behavior.

1.6 Operation Definitions

1.6.1 **Adolescents** in this research defines as Grade 10 - 12 students from Kanarasadornbumroong school Yala - provincial secondary school.

1.6.2 **Reproductive health education** means students' knowledge on reproductive health that they retrieve by learning both in classroom or additional program by their school. Reproductive health education for this study are reproductive anatomy, STIs/HIV, abortion and its related complications, contraceptive, pregnancy, and reproductive physiology.

1.6.3 **Sexuality health education** means students' knowledge on sexuality health that they retrieve by learning both in classroom or additional program by their school. Sexuality health education for this study are gender (gender identity, gender role, gender expression), sexual orientation, sexual relationship, sexual arousal and sexual abuse.

1.6.4 **Needs assessment** mean self evaluation of adolescents' for current met needs and felt needs on sexuality and reproductive health education.

1.6.5 **Lover** means someone to whom students were sexually or emotionally attracted and whom students "dated" but they are still not having sexual intercourse.

1.6.6 **Boyfriend/Girlfriend** means someone to whom students were sexually or emotionally attracted and whom students "dated". For this study define the term of boyfriend/girlfriend as a friend whose students have sexual intercourse.

1.6.7 **Premarital sex** means having sexual intercourse before they are getting married.

1.6.8 **Multiple sexual partnership** means students who have had more than one sexual intercourse partners in the last 12 months.

1.6.9 **Risk behaviors** mean adolescents' activities. In this study emphasize on adolescents' behaviors that led them have a chance to have sexual intercourse, and its related complications or risk of STIs/HIV, pregnancy, abortion. This study, risk behaviors compose of social behaviors; going out for party, night club or pub, smoking, drinking alcoholic beverage, drug addiction, watching erotic movies, and sexual behaviors; having sexual intercourse experience, having multiple sexual partnerships (more than one people in a year), pay money or gifts in exchange for sexual intercourse, receive money or gifts in exchange for sexual intercourse, and having one night stand experience

1.6.10 **One night stand** is the sexual relationship between people whom they do not know or are not acquainted with each other before their agreement to have sexual intercourse without love and responsibility, but just for fulfilling sexual desire; the relationships start and end rapidly.

1.7 Variables

Review the existing research related to needs assessment on reproductive health education. The questionnaire is conducted and composed of 2 parts. First part, general information;

1.7.1 Independent Variables

1.7.1.1 Socio-demographic characteristics

1) Gender
2) Age
3) Religion
4) School level
5) Current resident
6) Person who students live with
7) Person who students discuss about sexual and reproductive health

1.7.1.2 Risk behaviors acceptance

1.7.1.3 Attitudes toward premarital sex

1.7.1.4 Sources of information on sexuality and reproductive health

1.7.1.5 Current met needs on sexuality and reproductive health education

1.7.2 Dependent Variable

Dependent variable is adolescents' felt needs on sexuality and reproductive health education that consists of the following topic;

1.7.2.1 Reproductive health education

1) Reproductive anatomy
2) STIs/HIV
3) Abortion and Its Related Complications
4) Contraceptive
5) Pregnancy
6) Reproductive physiology

1.7.2.2 Sexuality health education

7) Gender (gender identity, gender role, gender expression)
8) Sexual orientation
9) Sexual relationship
10) Sexual arousal
11) Sexual abuse

1.8 Conceptual Frame Work

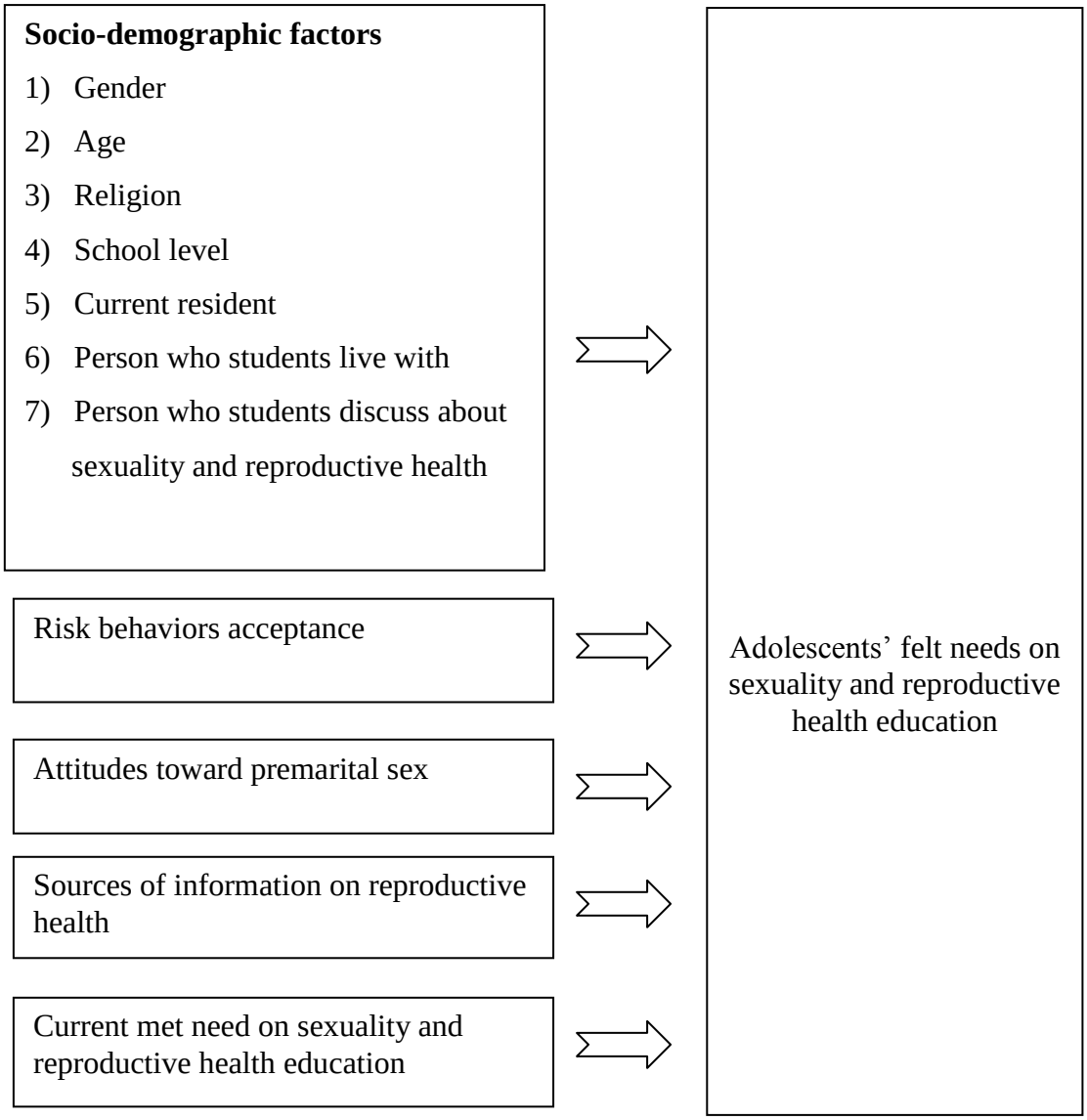

Fig 1. Conceptual framework of Needs Assessment on Sexuality and Reproductive Health Education of Secondary School Adolescents in Yala

CHAPTER II
LITERATURE REVIEW

2.1 Needs Assessment

Needs assessment has been defined as the process of measuring the extent and nature of the needs of a particular target population so that services can respond to them (Hooper, 1999 cited in Grant, 2002). Exclusive reliance on formal needs assessment in educational planning could render education an instrumental and narrow process (Westkaemper R. et al., 2001 cited in Grant, 2002). A needs assessment is the process of collecting information about an expressed or implied organizational need that could be met by conducting training. The need can be a desire to improve current performance or to correct a deficiency (Barbazette, 2008 cited in Grant, 2002). Needs assessment is a critical activity for the training and development function. The first step is to conduct a needs assessment. The assessment begins with a need which can be identified in several ways but is generally described as a gap between what is currently in place and what is needed, now and in the future (Miller and Osinski, 2002 cited in Grant, 2002). Questionnaires and structured interviews seem to be the most commonly reported methods of needs assessment, but such methods are also used for evaluation, assessment, management, education, and now appraisal and revalidation (Myers P, 1999 cited in Grant, 2002).

One of the most important elements in developing educational programs is surveying and assessing local educational conditions, needs, priorities, and resources (Shaeffer, 1994 cited in Grant, 2002). Needs assessment might be to help curriculum planning, diagnose individual problems, assess student learning, demonstrate accountability, improve practice and safety, or offer individual feedback and educational intervention (Gillam S.J. and Murray S.A., 1996 cited in Grant, 2002). The main purpose of needs assessment must be to help educational planning. More importantly needs assessment of adolescents is crucial for improve adolescents' knowledge and skills appropriate to enabling them to have healthy development and prevent health problems, and to increase access to health services to meet their needs (Aree Prohmmo, 2007). Many research studies have revealed that adolescent girls generally lack adequate knowledge about sexual matters and contraception which results in early pregnancy, increased pre-marital sexual activity, increased risk of STIs

infections including HIV, maternal morbidity and mortality and unsafe abortions. Therefore, there is a need to provide adolescents with information so as to enable them to cope better with these changes. Though there is a need to educate the adolescents on sex education (Mahajan and Sharma, 2005).

2.2 Adolescence

Adolescence is a unique time in the life cycle that brings special challenges and opportunities. It is the time when young people develop the physical, mental, and social capacities to take up adult responsibilities. WHO define the term of adolescence as someone aged 10-19 years that is a period of transition from childhood to adulthood (WHO, 1999). Adolescence is not just an age, it is a mindset. It is that hard-to-define time period somewhere between being a child and an adult. It is the stage of physical, mental and social transition when people shape themselves and are shaped by the world around them. Adolescents are frequently seen as challenging society or engaging in immoral, rebellious or deviant behavior (Loveland, 2006). Adolescent health comprises physical, mental and social well-being and not merely the absence of disease or infirmity, and it is closely related to adolescent behavior. Changing social and environmental conditions are placing greater strains on young people, modifying their behaviors and relationships, which lead to health problems. These health problems include the age at which sexual activity begins, whether safe sex is practiced, eating habits, levels of physical activity, and use of tobacco, alcohol and other psychoactive substances (WHO/UNFPA/UNICEF Study Group, 1999). Health problems commonly related to behavior include unwanted and unprotected sexual relations, eating habits, lack of physical activity, and drinking and substance abuse. (WHO/UNFPA/UNICEF study group, 1999). Adolescent health and development are closely linked with their behavior and life styles. The context in with they live their family, their schools, their workplaces and their communities also help shaping young people lives. To achieve better overall health for young people means working on a number of fronts simultaneously. Families, schools, and workplaces as well as local and central government agencies all have a role to play in improving young people's health and development (Aree Prohmmo, 2007). To achieve the ultimate goal for adolescent health and development, a holistic and development approach is recommended. Not only adolescents should fully participate throughout the process including planning and implementing, but also the family, schools,

community, media, and various organizations at both local and national levels (Aree Prohmmo, 2007).

2.3 Reproductive Health and Sexual Health

Within the framework of WHO's definition of health as a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and systems at all stages of life. WHO distinguishes three dimensions of reproductive health: as a human condition (including the level of health and related areas of well-being); as an approach (policies, legislation and attitudes); and as services (the provision of services, access to them, and their utilization) (Ritu, 2002).

The International Conference on Population and Development (ICPD) held in Cairo in 1994 define or reflect important dimensions consistently cited in qualitative and quantitative studies on reproductive health that consist of seven domain ; Physical health and illness, Psychological health and illness, Physical functioning, Safe and satisfying sexual life, Energy and fatigue, Cognitive functioning, Pain and discomfort (Ritu, 2002).

The Centre for Disease Control (CDC) has defined sexual health to be a state where there is absence of sexually transmitted diseases (STIs) and reproductive diseases, and there is control of fertility (Abha and Manisha, 2007).

WHO recognized that it is difficult to arrive at a universally acceptable definition of the totality of human sexuality, the following definition is presented as a step in this direction: Sexual Health is the integration of somatic, emotional, intellectual and social aspects of sexual being in ways that are positively enriching, and that enhances personality, communication and love. Sexual health is a state of physical, emotional, mental, and social wellbeing in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity. Sexual health needs a positive and respectful approach to sexuality and sexual relationships, and the possibility of having pleasurable and safe sexual experiences that are free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all individuals must be respected, protected, and satisfied (Glasier and Gülmezoglu, 2006).

Sexual and reproductive health requires knowledge of normal physiology and development, healthy expressions of sexuality, an understanding of the consequences

of sexual and reproductive behaviors, as well as communication skills that assist people in making informed and responsible decisions. Access to services that provide contraception, safe abortion, pregnancy care, and diagnosis and treatment of sexually transmitted infections is critical (Shaw, 2009).

2.4 Sexuality and Reproductive Health Education

PATH also proposed new approaches to sexuality education in terms of teaching methods. Formerly, sexuality education was taught via lectures. Now it involves a student-centered learning process, changing students' attitudes, and raising consciousness related to positive sexuality, sexual health, and rights in the form of games, group activities, and case study analysis. After the curriculum formulation was completed, the first activity involved an important new dimension of sexuality education: helping teachers adapt their own attitudes toward sexuality education so that they could be more effective in the classroom (PATH, 2002). The current child and youth development plan (2002-2011) classified young people into three main groups: aged 0-5 years, aged 6-14 years, and 15-25 years. This plan places emphasis on promoting family and community to providing and supporting the quality of life of young people and to enhancing access to and use of available services, enhancing life skills, and to achieve self-reliance. Moreover, these young people should be encouraged to participating in development activities and contributing to the community. It also proposed the ideal child and youth as follows: family connectedness and respect the rights of others; be in good health and adhere to desirable health-related behaviors; emotional, moral and ethical maturity; honest; critical thinking and engage in lifelong learning; assist the disadvantaged and participating in community development. The plan also recognized the family as the prime institution responsible for the healthy development of children and youth. Other social institutions such as schools and community, media and related government organizations, local government organizations, and non-government organizations are expected to support the family (Aree Prohmmo, 2007). In Thailand, the policies aimed at reproductive health among adolescents include: (a) the national reproductive health policy, (b) the national youth policy, (c) the national health development plan, and (d) the national HIV prevention plan. Sex education and life skills education in schools as well as counseling services in schools, hospitals and hotline services have integrated the strategies of increasing knowledge of reproductive health, building

skills in problem solving, decision making, and life planning. At the program level, initiatives taken by the Government are counseling of adolescents and young adults on reproductive health and improving sex education in schools (UNFPA, 2005).

A study conducted by Aree Prohmmo (2007) revealed that the main government programs tailored to meet health and development needs for adolescents.

2.4.1 Sexuality Education for Youth

Sexuality is a fundamental aspect of human life: it has physical, psychological, spiritual, social, economic, political and cultural dimensions. Effective sexuality education can provide young people with age-appropriate, culturally relevant and scientifically accurate information. It includes structured opportunities for young people to explore their attitudes. Effective sexuality education is important because of the impact of cultural values and religious beliefs on all individuals, and especially on young people, in their understanding of this issue and in managing relationships with their parents, teachers, other adults and their communities. (UNESCO, 2009: 2)

Sexuality education curriculum in thailand has been revised several times, involving efforts from both government and non-government sectors. Most sexuality education curriculum focus on gender and school-age youth and try to control adolescent behavior or promote safe sex. Issues related to the positive dimensions of sexuality and related to the understanding of pleasure, desire, and love, are rarely taught. (Suchada Thaweesit and Pimpawan Boonmongkon, 2010: 10)

Sexuality education at school is taught as part of a subject called ‘Family Life Education’. This subject is compulsory and has been taught to primary and secondary school students for more than 20 years. The curriculum on sexuality education underwent a major revision in 2001 by the Ministry of Education and MOPH. The MOPH also developed manual and trained teachers and educators to provide them with the skills to transfer sex information to youth using a student-centered approach. Some schools have introduced sexual education as part of an extra curriculum (Aree Prohmmo, 2007).

An enlarged content curriculum of sexuality education was proposed by PATH to cover six dimensions (Suchada Thaweesit and Pimpawan Boonmongkon, 2010: 11). These are;

1) Human development
2) Relationships
3) Personal skills
4) Sexual behavior
5) Sexual health
6) Society and culture

In addition, the essential topics content for sexuality education (Future of Sex Education, 2012) for the sum of secondary education are;

1) Anatomy and Physiology
2) Puberty and Adolescent Development
3) Identity
4) Pregnancy and Reproduction
5) STIs/HIV
6) Healthy Relationships
7) Personal Safety

Moreover, sexuality education curriculum of Nakhonsithammarat Rajabhat University (Nakhonsithammarat Rajabhat University, 2011) consists of;

1) Reproductive health development
2) STIs/HIV
3) Gender role
4) Gender identity and sexual orientation
5) Sexual relationship and gender expression
6) Sexual abuse

Appropriate sexual education and consistent access to male and female condoms, with clear messages about correct and consistent use, should be available to all who need them. This will lead to the common goal of improving the sexual health and well-being of adolescents (WHO, 2007).

Sexuality education is the responsibility of the whole school via not only teaching but also school rules, in-school practices, the curriculum and teaching and learning materials. (UNESCO, 2009: 3)

Sexuality health education in this study consisted of gender (gender identity, gender role, gender expression), sexual orientation, sexual relationship, sexual arousal and sexual abuse.

2.4.2 Reproductive Health Counseling

In Thailand, all schools are required to have student advice systems. Prior to the HIV epidemic this system mainly provided counseling services concerning education and students' behavior. Since the epidemic, however, the system has become closely linked with health services. Peer counselors were recruited on voluntary basis and were trained by the MOPH to enable them to provide sexual and reproductive health education to their friends (Aree Prohmmo, 2007). The Ministry of Education, in collaboration with the MOPH, has launched a program to reduce drug abuse in schools called the 'Drug-Free School Program'. Teachers receive training in counseling and provide counseling services to problem students, referring them to appropriate treatment if necessary (Aree Prohmmo, 2007).

Comprehensive, rights-based sexuality information and education equips young people with the essential knowledge and skills they need to determine and enjoy their sexuality – both physically and emotionally, individually as well as in relationships. The availability of high-quality sexuality education in schools is vital for giving them the skills they need to decode these messages, challenge harmful assumptions and ideologies, make healthy choices, and have pleasurable and fulfilling relationships (IPPF Uropean network, 2007).

2.5 Sexual Behavior of Muslim Adolescents

Programs reaching out to the Muslims have been introduced with the aim of conveying culturally-sensitive information on human sexuality and reproductive health, as they have been most vehement about voicing their views on parents' role in sex education rather than having teachers impart knowledge on sex in the classroom. Yet, parents, teachers and service providers continue to feel uncomfortable and less skilled in addressing adolescent sexuality issues (UNFPA, 2005).

A study in Thailand which conducted by Pornpen Pataranutaporn et al. (2009) studied the strategies for promoting desirable sexual behavior of Muslim youth in three southern provinces of Thailand found that sexual behavior of Muslim

adolescents had knowledge at a moderate level, the score of sex education and education courses interference with Islamic religious teaching were average 69.71% and 71.51% respectively, sexual value and sexual conduct were at the high level, the mean of sexual values and sexual conducts were 2.40 and 2.50 respectively. However, 18.88 % of the sample group used to have sexual intercourse, 56.34% of the group protected themselves regularly and 49.30% used withdrawal. The opinion of Muslim adolescences and some qualified specialists towards to the desirable of young Muslim's sexual behaviors, they were found that knowledge about physical, mental and social changing between male and female adolescences, self-concept to protect from the opposite tricks, values of reserving the ivory love, awareness about the sexual behavior according to Islamic doctrines, completely dress and creative activities to avert sexual attention. Needs and strategies that promote the desirable sexual behavior of young Muslim, they were found that sex education courses to create interference with Islamic religious teachings in school, including variety activities, virtue ethics training, family camp activities, activities of religious, consulting, perform-oriented conference and distribution behavior of adolescents (Pornpen Pataranutaporn et al., 2009). Accordingly to a UNFPA survey in 2004 across 165 countries, there are many cultural and religious factors that impede or encourage awareness and implementation of adolescent reproductive and sexual health programs (Rio, 2006). Religion itself has also become more diverse, moving away from the common classifications of Buddhist, Christian, Hindu, Jew and Muslim (Loveland, 2006). Cultural sensitivities may also be a factor in young people's poor knowledge about reproductive health (Mohammad et al., 2006).

2.6 Reproductive Health Implementation in Thailand

Ministry of public health (2003) had achieved the ultimate goal in reducing population growth in which total fertility rate had reached replacement level, further important task of the MOPH is to improve and achieve the highest level of the quality of life of the Thai people to attain desirable health image as stated in the Eighth National Economic and Social Development Plan. In July, 1997, the Minister of Public Health had declared the national reproductive health policy of Thailand, that "All Thai citizens at all ages, must have good reproductive health throughout their entire lives." This covers the whole life cycle from birth until death. As it is said "To

be born with quality and to die with dignity.". The following are components of reproductive health implementation in Thailand (MOPH, 2003).

1) Family Planning - To promote the ideal family size
2) Maternal and Child Health - To promote proper pre – and post natal care
3) HIV - To control and treatment of HIV
4) Reproductive Tract Infections (RTIs) - To promote prevention and treatment of reproductive tract infections
5) Malignancies of Reproductive Tract Infection - To control malignancies of the reproductive organs
6) Sexuality Education - To promote counseling and dissemination of sex education information
7) Abortion and Its Related Complications - To decrease the abortion incidence and its resultant complications
8) Adolescent Reproductive Health - To promote and disseminate RH care among youths and adolescents
9) Infertility - To promote counseling among couples facing RH problems
10) Post- reproductive Age and Old Age - To promote and provide services for Care pre – and post menopausal women and old age population

2.7 Related Research to Sexuality and Reproductive Health in Adolescents

2.7.1 Socio-demographic

A study in Nairobi, Kenya which conducted by Kabiru and Orpinas (2009) indicated that socio-demographic, behavioral, and psychosocial factors associated with heterosexual activity among high-school students. Approximately 50% of the males and 11% of females reported having had sexual intercourse at least once in their lifetime with a significant proportion reporting multiple sexual partnerships (Kabiru and Orpinas, 2009). Sexual activity was associated with various factors including religiosity, perceived parental attitudes towards sex, living arrangements, and school characteristics (Kabiru and Orpinas, 2009). A study of Deepasert (2006) in Thailand, indicated that the maintenance of reproductive health is a problem, since young people are engaging in sexual activity at a younger age. A study found that 10 percent of girls between 13-15 years old have had sex without protection (Deepasert, 2006). The United States Agency for International Development mentioned that Reproductive Health and HIV education programs based on written curricula can

increase knowledge, shift attitudes, enhance skills, and change behaviors to prevent pregnancy and HIV infection among in-school and out-of-school youth (Mahua, 2007).

2.7.2 Education and School level

After the International Conference on Population and Development in 1994, The Thai government has adjusted the policy from focusing on only family planning in order to decrease population growth rate to emphasize more on various reproductive health services. It included the prevention and control of sexual transmitted diseases and HIV and initiated the policy for men on sharing responsibility in reproductive health which has completed health promotion of the population from cradle to grave. Problems relating to reproductive health in adolescents stem from lack of knowledge, inappropriate personal hygiene habits, and the common practice of self-care over consulting a qualified physician to prevent humiliation (Thailand health profile, 2007). The Government has tackled the issue of adolescent sexuality through targeted policies and programs. The policies aimed at reproductive health among adolescents include: (a) the national reproductive health policy, (b) the national youth policy, (c) the national health development plan, and (d) the national HIV prevention plan. Sex education and life skills education in schools as well as counseling services in schools, hospitals and hotline services have integrated the strategies of increasing knowledge of reproductive health, building skills in problem solving, decision making, and life planning. At the program level, initiatives taken by the government are counseling of adolescents and young adults on reproductive health and improving sex education in schools. In spite of the effectiveness of some projects having been questioned, current policy emphasizes raising public awareness about the importance of sex education, fostering positive values in society about teaching sexuality, and promoting sex education in the context of the family, complemented by school health programs. A study of Eisenberg (2008) in USA found that sexuality education in public schools is the incompatibility between current federal policies and prevailing opinions among adults and youth. Several recent peer-reviewed studies have demonstrated extensive support for comprehensive sexual education. In studies of attitudes of the general population of adults, registered voters, and parents, upward of 80% favor sexuality education that includes both abstinence and prevention messages (Eisenberg, 2008). A study of

Ingkathawornwong et al. (2007) indicated that adolescents with different levels of education displayed significantly different sexual risk behaviors. The first year student's sexual behavior had a higher risk than did the second and the third year students. The second and the third year students showed no difference. The results of this study have suggested that to reduce the risks from sexual behavior among adolescents knowledge of "safe sex" should be promoted. Education concerning attitude towards sex and sexual values should also be taken into consideration in order that adolescents can protect themselves against sexual risk behaviors (Ingkathawornwong et al., 2007).

2.7.3 Religion and Norms

Sexual and reproductive health is directly related to the survival of the human race and embroiled in complex community and societal taboos, often based on fear, misinformation, and a need to protect traditional norms without the recognition that they may be harmful (Shaw, 2009). In addition the survey of UNESCO and UNFPA (2006) found that sexual and reproductive health needs and rights of young unmarried people have traditionally been taboo subjects. In many societies, there are controversies and fear surrounding the issue of adolescent sexuality (UNESCO and UNFPA, 2006). Religion is a global phenomenon that is embedded in human existence. It is a foundational aspect of culture and society that influences choices, ways of life and cultural paradigms. Religion creates communities and has the ability to traverse, include or exceed other parts of life and society. Therefore, religion is undoubtedly another strong cultural influence on the adolescent that fights for his or her attention and participation (Loveland, 2006). Religion plays a significant role in promoting adolescent reproductive and sexual health, as do social and political institutions, such as media and communications, systems of education and modes of governance (Akhter, 2006).

2.7.4 Premarital sex

In 2004, The Bureau of Epidemiology conducted the Behavioural Surveillance Survey in lower secondary school students in 24 provinces There were 6,302 male and 6,496 female students recruited in the survey and self-administered questionnaire was used. 67% of female students reported having had their first sexual intercourse with their boyfriends or friends (Chareerat Khemanasiri and Plipat Thanarak, 2004).

In the realm of sexual and reproductive health, premarital sex is no longer uncommon among Thai youth (Dongling and Aphichat Chamratrithirong, 2009). The National Sexual Behavior Survey of Thailand in 2006 indicates that among Thai youth aged 18-24 years 80 percent of male and 63 percent of female had ever had sex. Of those Thai youth having sexual experience, 98% of male youth and 70% of female youth ever had premarital sex (Chai Podhisita and Xenos, 2009). In general, males experienced first sex at much younger ages than females. For instance, age at first sex ranged from 18 to 20 years in 2001 (Chayowan et al, 2003). Media—including television, movies, video games, music and websites - is becoming an ever more pervasive element in the lives of children and adolescents. Of the 14 articles evaluating media and sexual behavior, 13 (93%) found a statistically significant association between media exposure and a more rapid progression of initiation of sexual behavior (Smith et all et al., 2008).

A study in Yala province, the sexual behaviors of vocational students in Yala municipality found that they used to walk and hand touching, kissing with opposite gender and sexual intercourse about 73.6%, 43.8% and 26.2% respectively (Awatip Wae, 2006). Furthermore, a study of Ingkathawornwong et al. (2007) in Songkhla and Pattalung provinces, students were selected from the 1st-3rd years in vocational schools. 9.3% of the sample had an initial sexual relationship between 12-19 years of age and 89.1% usually with their lover (Ingkathawornwong et al., 2007).

A study conducted by Apakupakul (2006) found that teenagers (13-23 years old), and focus group discussion involving 20 teenagers on problem-solving processes in dealing with sexual relation problems. Results: Of the teenagers interviewed, 58.2% were male and 35.2% were studying in college. There were 12 males and and 8 females in the focus group discussion. The average age was 19 years. 64% had had experience in sexual relations. The average age at time of first sexual relation with a partner was 16.3 years. The average age at first sexual relation with a prostitute was 17.3 years (Apakupakul, 2006). Sexual experience was associated with older age, access to satellite television, alcohol consumption, that are the strongest predictors of sexual experience, and permissive attitudes toward sex (Mohammad, 2006).

2.7.5 Attitudes toward premarital sex

Premarital sex in men is accepted as almost all male adolescents in the past had their first sexual intercourse with commercial sex workers (Chai Podhisita and

Umaporn Pattaravanich, 1995) In contrast, women are expected to keep their virginity until marriage (Pimpawan Boonmongkon and at al., 2000). A Study of Aree Prohmmo (2007) revealed that the survey of 1,600 secondary school students and vocational schools across Thailand found that attitudes towards premarital sex in adolescents are that it is acceptable especially among males and without responsibility (Aree Prohmmo, 2007). Attitudes toward premarital sex in the study of Mohammad Reza Mohammadi et al. (2006) in Iran found that The majority of adolescents believed that unmarried young men and women should not have sex, 34% felt that unmarried members of the opposite gender should not even form friendships and 76% believed that homosexual behavior is unacceptable (Mohammad et al., 2006). The change in youth's attitudes towards sex is due largely to changes in their life-styles. Young people spend much longer time in school than the past generation. Many of them live independently away from home and have more freedom to do whatever they want (Aree Prohmmo, 2007). Attitudes toward premarital sex were more permissive among respondents who lived separately from their parents, or reported having used alcohol, cigarettes or drugs ($p < 0.05$) (Mohammad, 2006).

2.7.6 Abortion and Pregnancy

Induced abortion is illegal in Thailand. It is only permitted if the induced abortion is performed by physicians for two conditions: when the health of the women is at risk due to pregnancy; and the women get pregnant as a result of rapes (Reproductive health Division, 2003). A survey of sexual behaviors in 1,725 in-school students in one province in the North of Thailand reveal that about 17-27% of adolescents had ever been pregnant, and among them at least four out of five had ever had an abortion (Aree Prohmmo, 2007). The likelihood of teenage unmarried pregnancy and its heavy immediate and long-term social and economic costs. It is a leading cause of death worldwide among women aged 15 to 19 years owing to childbirth complications and unsafe abortion (Milliez and Milliez, 2009). Adolescent health and development in Thailand revealed that the increase in youth sexual activity coupled with the barriers to access to reproductive health information and services have led to a number of problems, among which are abortion and STIs/HIV (Aree Prohmmo, 2007). In 1999, a hospital-based survey of 787 hospitals conducted by the Ministry of Public Health showed that among a total of 45,990 women admitted for the treatment of complications arising from both spontaneous and induced abortions,

the highest proportions of women were in the age group 20-24, many of whom did not have or had little access to contraceptives. Interestingly, the proportion of females in the age group 24 and below seeking abortions constituted at least 33% of the total surveyed (UNFPA, 2005). A 2000 survey showed that 46% of women seeking assistance in public health facilities as a result of abortion complications were below 25 years. For young women, the concern of interrupting education was a reason for abortion, while family problems and contraceptive failure constituted the other reasons (UNFPA, 2005).

2.7.7 Condom Used

Studies in Thailand have shown low condom use among adolescents. For instance, only 20-30 per cent of sexually active young people are using condoms consistently (UNDP, 2004). A survey of students in secondary schools and vocational colleges in Bangkok in 2004 found that 26.3 percent experienced sexual activities, but only one-third of both female and male students reported having used condom in the last sexual intercourse (Somsak Wongsawat et al., 2005). Teenagers understood that they could prevent HIV infection by using a condom. However, in teenagers who engaged in sexual relations, only 47% regularly used a condom; 30% used a condom occasionally and 23% had never used a condom (Apakupakul, 2006). The general belief was that sexual relations with a partner were safer than with a prostitute, and most felt that there was no need to use a condom when they had sexual relations with their regular partners. The most common reasons given for using a condom were contraception and prevention of HIV infection (Apakupakul, 2006). Studies in Thailand have shown low condom use among adolescents. For instance, only 20-30% of sexually active young people are using condoms consistently (Aree Prohmmo, 2007). Low use of condom in adolescent can be partly explained by the perception of low risk of contacting the diseases. Although condom has been promoted as dual protection – pregnancy prevention and sexual transmitted disease prevention – reported condom used has always been low, especially for the purpose of contraception. (Aree Prohmmo, 2007).

2.7.8 Risk Behaviors

Every country must face similar problems with respect to the reproductive health of youth, such as no sexual prevention which leads to problems such as

unplanned pregnancy, unsafe abortion, and sexual infection including HIV (Sioy Anusornteerakul et al., 2008).

A study conducted by Suzuki K et al. (2006) in the Republic of Marshall Islands reported that factors significantly associated with reproductive health risk behavior among both the boys and the girls were a negative attitude toward condom use, not considering receiving public health information and services as a human right, and not knowing where to go for consultation about questions and concerns related to sex (Suzuki et al., 2006). I Iran, young adolescents, those not attending day school, those who studied in nongovernmental schools, those with work experience, and those not residing with both parents displayed relatively permissive attitudes toward premarital sex. Moreover, as expected, access to satellite television or the internet, and use of cigarettes, alcohol or drugs, were associated with permissive attitudes (Mohammad et al., 2006). Thailand is one of Asian countries with high rate of cigarette smoking among adolescents. The smoking rate among Thai youth, 13 to 17 years of age, increasing from 20.3% in 2005 to 27.8% in 2006.This increase has been attributed to the 300% increase in smoking activity noted among 11 to 14 year olds between 1991 and 2006 (Jintana Sarayuthpitak et al.,2011). Aside from the direct health effect, alcohol drinking among adolescents is closely linked with unsafe sex among youth (Aree Prohmmo, 2007). As other studies have observed, youth who reported smoking, alcohol consumption or drug use were significantly more likely than others to report sexual contact (Mohammad et al., 2006). Similar to a study of Apakupakul (2006) that risk factors for sexual relations without condom use were drinking alcohol, lack of a counselor in sexual relations, amphetamine use, having sexual relations with a prostitute (Apakupakul, 2006). Adolescent Health and Development Situation in Thailand shown that there has been increasing trends in the proportion of adolescents who have experienced sexual activities and decreasing age at sexual debut. In general, males experienced first sex at much younger ages than females (Aree Prohmmo, 2007). Peer groups had the highest influence on sexual risk behavior usually after they had been drinking alcohol and then they had sex. In the study sample media sources, such as internet web sites and VCDs, were found to be important stimulants of sexual desire (Ingkathawornwong et al., 2007). Vanphanom Sychareun Thomsen and Faxelid (2011) studied multiple health risk behaviors among adolescents. The results found that boys who had peers with health risk behaviors

were more likely to have multiple risk behaviors than boys whose peers had no health risk behavior. while peer's involvement in health risk behaviors such as smoking, drinking alcohol, substance use, and having sex were associated with multiple risk behaviours (Vanphanom Sychareun, Thomsen and Faxelid, 2011). A Survey of Sexual Behaviors in 1,725 in-school students in one province in the North of Thailand reveal that average number of sex partner is 4.6 persons in male and 2.8 persons in female students. They had regular partner in the last 3 months is 41.8% for male and 46.6% for female. The study reported that male students grade 12 had sex with commercial sex worker and other women whereas female students had sex with boyfriends or friends and other men (Aree Prohmmo, 2007: 34 – 38). Sexually transmitted infections are a major health risk to all sexually active adolescents. Increase in sexual activity among adolescents and especially unprotected sex may have contributed to the alarming cause of deaths due to the diseases (WHO/UNFPA/UNICEF Study Group, 1999). The risk of sexual transmission of HIV, especially among populations who are most likely to have a high number of sex partners (WHO, 2007).

2.7.9 STIs/HIV

In Thailand, cause of death from HIV in young men were about three times more likely to be infected than young women (Aree Prohmmo, 2007). Compared with female youth, male youth are facing more risk of HIV because male youth are more sexually active than female youth, such as earlier initiate of sex intercourse, having multiple sexual partners (Malee Sabaiying, 2009). However, recent trends have shown that there has been increased in the incidence of HIV among female youth (Aree Prohmmo, 2007). Sexual activity also results in young persons' morbidity from pregnancy and STIs. In USA, an estimated almost 12 million youths live with HIV (Milliez and Milliez, 2009). A study of Mohammad et al. indicated that large numbers of young people lack information about safe sex and about the skills necessary to negotiate and adopt safe sex practices (Mohammad et al., 2006). A consequence of unsafe sex is that youth are increasingly vulnerable to STIs/HIV infection. The cumulative numbers of HIV infections (10-24 years) from 1984 to 2003 reached 11.1% in the total HIV population (UNFPA, 2005). The number of infected youth reached a peak in 1996 but showed signs of decline. While it dipped soon after, the epidemic continued to spread in the population at large. In spite of rigorous

government programs to curb the spread of HIV through the use of condoms, the rate of consistent condom use among secondary school students rose only slightly from 21.7% in 1995 to 27.7% in 2002 (UNFPA, 2005). Most alarming is the number of young women who are among the newly infected. In 2003, the Ministry of Public Health estimated that women in the age group 15-29 accounted for 61% of new infections (UNFPA, 2005).

Adolescents are at special risk of infection with sexually transmitted pathogens, including HIV, because they might not have the information, skills, health care and support they need while going through sexual development (WHO, 2007). STIs and HIV incidence is also a reproductive health problem, and many young people who suffer from these infections ignore it because they are not adequately informed (Cornejo and Silva, 2004). Correct and consistent use of male and female condoms, as well as abstinence, delay in onset of sexual activity, keeping to one sexual partner or reducing the number of sexual partners (WHO, 2007). Prevention of sexually transmitted infections (STIs), including HIV, reduces social stigma and helps young people and the families they will later create to remain healthy (Milliez and Milliez, 2009). Age-appropriate health education and counseling for these infections and their risk factors can be provided and help in further prevention of infection. An effective response to the spread of sexually transmitted infections starts with prevention by providing accurate and explicit information on safer sex (WHO, 2007).

2.7.10 Relationship and Communication

Adolescents are a fluid group in an exploratory phase of their lives, with their own language and style of communicating (Dominguez and Shields, 2008). Youths who did not have open communication with their families were more likely to engage in high-risk behaviors, such as using over-the-counter abortive methods or illegal services, than those who had open communication with their families. Parents are the essential change agents for their youth. Communication eventually assists parents in expressing their concerns and approval of certain health behaviors of their children (Sioy Anusornteerakul et al., 2008). A study, recruited a total of 1,500 adolescent males in Iran, conducted by Mohammad et al. (2006) found that 47% found it easy to communicate with their father on important issues, and 31% had ever talked with their father about sexual matters. Similarly, fewer than a third of participants found it easy to communicate with their mother on important issues, and 37% had ever discussed

sexual matters with their mother (Mohammad et al., 2006). Adolescents who found it difficult to communicate with their fathers or mothers on important matters had higher rates of sexual contact, but so did those who communicated often with their parents on sexual matters (Mohammad et al., 2006). Parents play a critical role in promoting adolescent health and development. An analysis of data from six cross-national studies, representing 53 different countries, found that parent-child relationships affect the likelihood of early sexual initiation, substance use, and depression among adolescents (WHO, 2001). A study of Ingkathawornwong et al. (2007) found that when adolescents had problems of a sexual nature they mostly consulted their friends. (Ingkathawornwong et al., 2007).

2.7.11 Sources of Knowledge

Health requires knowledge of normal physiology and development, healthy expressions of sexuality, an understanding of the consequences of sexual and reproductive behaviors, as well as communication skills that assist people in making informed and responsible decisions (Shaw, 2009). Adolescents and young people are poorly informed about sexuality, reproductive health and the consequences of unprotected sex (UNESCO and UNFPA 2006). Misinformation and lack of knowledge about sexual and reproductive health is disturbingly common among young people, globally (Shaw, 2009). Computer technology such as the internet has also become important as a conduit for conveying information, promoting health knowledge. Even health columns in the printed and electronic media have targeted health programs for youth (UNFPA, 2005). Online content and internet activities with a sexual character are widespread. Positive or negative consequences may result depending on how the internet is used in various social contexts for activities of a sexual nature (Doring, 2009). Internet sexuality can have impacts on sexual attitudes and identities, the sexual socialization of children and adolescents, gender relations, the social position and political activism of sexual minorities, the inclusion of people with disabilities, the spread of sexually transmitted infections, sexual satisfaction in couple relationships, the promotion of sexual health, the development of sexual disorders, and the occurrence of sexual victimization (Doring, 2009). In addition, young people must learn about sex from their friends or through the media, such as the internet, television, and movies. It appears that parents are failing to discuss sex with their daughters. In addition, youth find it an inconvenience to talk with their

families about the subject (Creel and Perry, 2002). Reproductive health information, education, and communication programs and projects can contribute in many ways to increase knowledge, change attitudes, and enable action and mutuality, which are important goals for adolescents' well-being. Public education through radio can promote appropriate action in the home and community and can discourage unsafe practices that harm adolescents' health (Cornejo and Silva, 2004). In India, a few of adolescents try to gather information through books, films or from friends but a majority does not have access to such an information. Many a time, the adolescent receives wrong information and these myths and misconceptions are carried throughout their lifetime (Mahajan and Sharma, 2005).

2.7.12 Teaching and Learning

Teaching about reproductive health education is not always easy. It includes talking about bodies, gender, and sexuality, which takes preparation and courage. Games are a proven way to attract and hold attention. The educational effectiveness of games is supported by direct research, as well as established theories of educational design, health and sexuality education, and communication (PATH, 2002). Media—including television, movies, video games, music and websites - is becoming an ever more pervasive element in the lives of children and adolescents (Smith et al., 2008). TV drama and picture theater have been used for Teaching about reproductive health education. For example, "Twin Angels", the drama places particular emphasis on situations where pregnant women do not get enough family care and health care services during and after pregnancy (UNESCO and UNFPA, 2006). The curriculum on sexuality education underwent a major revision in 2001 by the Ministry of Education and MOPH. The MOPH also developed manual and trained teachers and educators to provide them with the skills to transfer sex information to youth using a student-centered approach (MOE,1999 ; MOPH, 2004). In Thailand, all schools are required to have student advice systems. Peer counselors were recruited on voluntary basis and were trained by the MOPH to enable them to provide sexual and reproductive health education to their friends (Aree Prohmmo, 2007). Hundreds of young people from across Pusselawa, Sri Lanka, were given advice on sexual and reproductive health (SRH) issues at a fair organized by young peer educators (UNESCO and UNFPA, 2006).

CHAPTER III
RESEARCH METHODOLOGY

3.1 Research Design

Cross-sectional descriptive research design used for the research to retrieve felt needs on sexuality and reproductive health education in adolescents from secondary school in Yala. The quantitative data of each subject was collected by self administered questionnaires.

3.2 Study Area

This study was taken place in Yala province. There are 1,113 students from Grade 10 – 12 of a provincial secondary schools under the regulation of the office of the basic education commission area 12. (Office of the basic education commission, 2012)

3.3 Study Population

The study population was 1,113 students from Grade 10 – 12 of a provincial secondary schools in Yala; 400 students from Grade 10, 313 students from Grade 11, and 400 students from Grade 12.

3.4 Sample Size

3.4.1 Sample Estimation

Sample estimation was calculated by the Formula of Taro Yamane (Yamane, 1967). The formula to calculate the sample size was

$$n = \frac{N}{1 + Ne^2}$$

Which is valid where n is the sample size

N is the population size

e is the significant level (0.05)

$$n = \frac{1{,}113}{1 + 1{,}113\ (0.05)^2}$$

$$= 294.25$$

In this study, the estimated calculation was at least 295 students and 25% (74 students) was added to prevent data losing. However, random sampling by draw lots by class for this study got the total sample of 393 students.

3.4.2 Sampling Technique

A purposive sampling was use to select Kanarasadornbumroong school Yala as the target school to collect the data for this study. It was established in 1909, and is located in the area of Yala municipality. It is the provincial school that is the biggest proportion of students compared to other schools and has many students entered from all districts. For this reason, this school was selected to be study target that has variety students. There are 1,113 students from Grade 10 – 12.

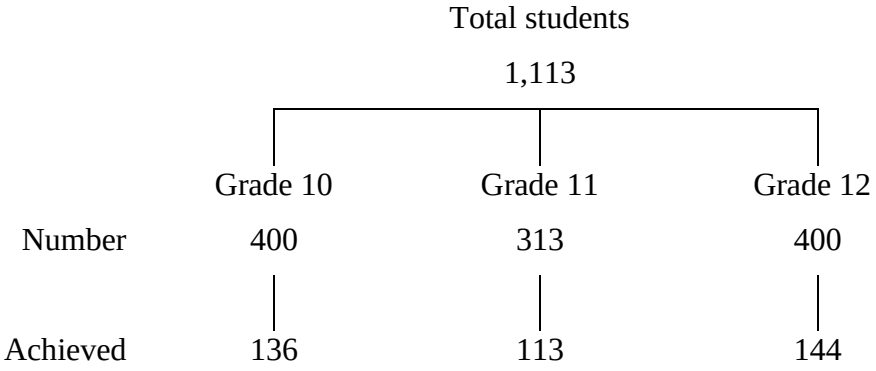

Fig 2. Flow chart of stratified random sampling

A stratified random sampling by drawing lots by class of each level to get the total sample size was made. Those were 136 students of Grade 10, 113 students of Grade 11 and 144 students of Grade 12. That total sample size was 393 students. The classes that have been selected are met here identified to keep anonymity of respondents.

3.5 Measurement Tools

The literature review on sexuality and reproductive health education and related fields was conducted to develop the questionnaires, then, for content validity send to the advisor and three experts to recheck, give some recommendations and suggestions. Finally, tool adapting and improving was made before trying out.

The questionnaires was developed by the researcher that adapted from the Illustrative questionnaire for interview surveys with young people (Cleland, no date)., Johns Hopkins Bloomberg school of public health center for communication programs. Questionnaire for values clarification (The Johns Hopkins Bloomberg, 2002)., and the questionnaire on priorities in reproductive health (WHO, 2001). The questionnaires consist of 5 parts:

Part 1 : **Socio-demographic factors**

Socio-demographic factors 7 items, including gender, age, religion, school level, current resident, person who students live with, and person who students talk to/discuss about sexual and reproductive health.

Part 2 : **Risk behaviors acceptance**

In this part, the same 10 situations for each gender were used to survey adolescents' social and sexual behaviors, including going out (for party, night club, pub), smoking, alcoholic drinking, drug addiction, watching erotic movies, sexual intercourse experience, multiple sexual partnerships, pay money or gifts in exchange for sexual intercourse, receive money or gifts in exchange for sexual intercourse, and one night stand experience.

Part 3 : **Attitudes toward premarital sex**

Total of 9 statements were used to evaluate whether adolescents accept premarital sex. These statements are 1) it is normal in boys to have premarital sex, 2) girls should be virgins when they are married, 3) it is nothing wrong with unmarried boys and girls having sexual intercourse, 4) one night stand is acceptable for adolescence, 5) it is normal in girls to have premarital sex, 6) premarital sex may cause unwanted outcomes such as STIs/HIV, pregnancy, 7) there is nothing wrong for adolescents to pay money or gifts in exchange for sexual intercourse, 8) there is

nothing wrong for adolescents to receive money or gifts in exchange for sexual intercourse, and 9) boy and girl should have sex before they become engaged to see whether they are suited to each other.

Part 4 : **Sources of information on sexuality and reproductive health**

Information sources are health system/health personnel, father, mother, relatives, teachers, friends, lover, boyfriend/girlfriend whose you have sexual intercourse, brothers/sisters, television, movies, books/magazines/newspapers, radio, internet, and other information sources.

Part 5 : **Current met needs and felt needs on sexuality and reproductive health education**

This part were used to evaluate for current met needs whether sexuality and reproductive health education could served their needs and assessed the felt needs on sexuality and reproductive health education by their expectation. These topics consisted of 1) reproductive health education topics, including reproductive anatomy, STIs/HIV, abortion and its related complications, contraceptive, pregnancy, reproductive physiology, and 2) sexuality education topics; gender (gender identity, gender role, gender expression), sexual orientation, sexual relationship, sexual arousal, and sexual abuse.

Try out the questionnaires by collecting data from 30 students of other school that all environments as same as the students of Kanarasadornbumroong school Yala. The similarity of both school are; the number of teachers, number of students, proportion of Buddhism and Muslim for both students and teachers, and located area.

After collecting the data, the completeness of all questionnaires, key the data and then, SPSS version 17 was used to test for the reliability of the questionnaires part 2 social and sexual risk behaviors acceptance, and part 3 attitudes toward premarital by Cronbach's α coefficient.

3.6 Validity and Reliability

Index of item objective congruence (IOC) was used to analyze for content validity of the questionnaires for socio-demographic characteristics and sources of

information on sexuality and reproductive health education. Content validity by IOC equal 1 of each item.

The α coefficient of risk behaviors acceptance was 0.86, attitudes toward premarital sex was 0.77 when the second item was deleted.

3.7 Data Collection

Data collection was conducted among 393 adolescents of Kanarasadornbumroong school Yala in March 2013. The director of the school allowed researcher to collect the data from the students. Before answering the questionnaires, students were explained background and rationale, objectives of the study, the operation definitions of terms that used in the research, reason for study in the school and school level, and contents of each part of the questionnaires by the researcher. Students could ask any question until they are no doubt about the study.

A little bit limited in data collecting were 1) only 4 classrooms of students at Grade 11 level were explained the information as mention above in their classroom. 2) Grade 10 students were introduced and explained by group and some of them were introduced by face to face 3) Grade 12 students were explained background and rationale, objectives of the study, the operation definitions of terms that used in the research, reason for study in the school and school level, and contents of each part of the questionnaires by the researcher in school auditorium where they came back to school to have the last session and ceremony of finished education. 4) The sample of 393 students were randomization by draw lots by class. Additional 71 students were selected by convenient sampling because of non-completed responses of the questionnaires.

The questionnaires were self-administered, and the subjects not to identify themselves in the questionnaires. They required about 20 minutes to response to the questionnaires. Completed questionnaires were placed in sealed package and all the subjects directly place them in the specific received box of the researcher to make them assured that researcher, friends and teachers would not have access to their responses. In addition, this study waived assent signed from their parents in order for students feel free to provide their answers in the questionnaires.

In any case of subjects who absent in the class, the subjects who refuse to participate in the study and the questionnaires which is not completed response are

excluded from this study. Researcher, then, include other students by accidental sampling for each level to get the amount of total subjects.

3.8 Data Analysis

Statistics for needs assessment on sexuality and reproductive health education of adolescents in Yala for each part were followed:

Part 1 : **Socio-demographic factors**

Frequency and percentage were used to analyze for gender, age, religion, school level, current resident, person who students live with, and person who students talk/discuss about sexual and reproductive health.

Frequency, mean, minimum and maximum were used to analyze age.

Part 2 : **Risk behaviors acceptance**

The adolescents were asked to assess risk behaviors acceptance. Devised a summary index that assigned a score of 3 for each "acceptable", 2 for "neutral", and 1 for "unacceptable", yielding a total score ranging from 1 to 3.

The highest score was 60 and the lowest score was 20. Frequency, percentage, mean and standard deviation were used. The level of risk behaviors acceptance was divided into 3 levels according to mean score and standard deviation (Best and Kahn, 1998) of the score of risk behaviors acceptance:

Accepted = $\geq$ mean score + 1S.D.

Neutral = between mean score ± 1S.D.

Unaccepted = $\leq$ mean score – 1S.D.

Part 3 : **Attitudes toward premarital sex**

The summary index was ranging from 1 to 5. Frequency, percentage, mean and standard deviation were used for attitude toward premarital sex. Scored for positive statements toward premarital sex; were number 1, 3, 4, 5, 7, 8, and 9 and negative statements toward premarital sex; number 2, and 6 as follow

	Positive statements	Negative statements
Strongly disagree	1	5
Disagree	2	4
Neither agree nor disagree	3	3
Agree	4	2
Strongly agree	5	1

The highest score was 45 and the lowest score was 9. The level of attitudes toward premarital sex was divided into 3 levels according to mean score and standard deviation (Best and Kahn, 1998) of the score of attitudes toward premarital sex:

Positive to premarital sex = $\geq$ mean score + 1S.D.

Neutral = between mean score ± 1S.D.

Negative to premarital sex = $\leq$ mean score – 1S.D.

Part 4 : **Sources of information on sexuality and reproductive health**

Frequency and percentage were used to analyze the data.

Part 5 : **Current met needs and felt needs on sexuality and reproductive health education**

The summary index was ranging from 1 to 5. Frequency, percentage, mean and standard deviation were used for both current met needs and felt needs on sexuality and reproductive health education.

	Current met needs / Felt needs
Very strong / Strongly desire	5
Strong / Desire	4
Moderate / Neutral	3
Slight / Not desire	2
Very slight / Strongly not desire	1

Interpretation into 3 levels according to mean and standard deviation

Accepted = $\geq$ mean + 1S.D.

Neutral = between mean ± 1S.D.

Unaccepted = $\leq$ mean – 1S.D.

For reproductive health education; the highest score was 30 and the lowest score was 6. The level of current met needs and felt needs on reproductive health education were divided into 3 levels according to mean score and standard deviation (Best and Kahn, 1998) of the score of current met needs and felt needs on reproductive health education:

High = $\geq$ mean score + 1S.D.

Moderate = between mean score ± 1S.D.

Low = $\leq$ mean score – 1S.D.

For sexuality health education the highest score was 25 and the lowest score was 5. The level of current met needs and felt needs on sexuality health education were divided into 3 levels according to mean and standard deviation (Best and Kahn, 1998) of the score of current met needs and felt needs on sexuality health education:

High = $\geq$ mean + 1S.D.

Moderate = between mean ± 1S.D.

Low = $\leq$ mean – 1S.D.

Test for the relationship between gender, school level, level of risk behaviors acceptance, level of attitudes toward premarital sex, level of current needs met on sexuality and reproductive health education and adolescents' needs on sexuality and reproductive health education by Chi-square test (χ^2) and Fisher's exact test.

3.9 Ethical Consideration

Ethical consent from the ethical review committee for research involving human research subjects, health science group, Chulalongkorn University proved and made consideration before collecting the data. The approval date was 25 May 2013.

Asking for permission from the school director was made. The director of the school allowed researcher to collect the data from the students. Before answering the questionnaires, students were informed background and rationale, objectives of the study, the operation definitions of terms that used in the research, reason for study in the school and school level, and contents of each part of the questionnaires by the researcher. Students could ask any question until they are no doubt about the study. Then they signed in the informed consents form before answering the questionnaires.

CHAPTER IV
RESULTS

This cross-sectional study was done to assess the felt needs on reproductive and sexuality health education among 393 secondary school adolescents in Yala by self-administered questionnaires.

The results of this study contain the descriptive portion of variables and the results showed the correlation between the variables. The results of this study were showed below;

4.1 Socio-demographic characteristics

Table 4.1 described the socio-demographic characteristics of the sample, there were more female (60.8%) than male (39.2%). Most students were 18 years old (41.3%), minimum 15 maximum 19 and mean of age was 17.3 years old. Most of their religion was Buddhism (64.6%). They studied in Grade 12 (36.6%), Grade 10 (34.6%), and Grade 11 (28.8%), respectively. They stayed in their home as a current resident (74.6%). Most of them lived with their father/mother (69.2%) and discussed about sexuality and reproductive health with their friends (81.9%), followed by their lover (57.8%), and their mother (38.7%), respectively.

Table 4.1 Frequency and percentage of adolescents' socio-demographic characteristics (n=393)

Socio- demographic characteristic	Frequency	Percentage
Gender		
Male	154	39.2
Female	239	60.8
Age		
15 years old	6	1.5
16 years old	92	23.4
17 years old	105	26.7
18 years old	162	41.3
19 years old	28	7.1

Mean 17.3, S.D. 0.95, Range 15 – 19

Table 4.1 (continued)

Socio- demographic characteristic	Frequency	Percentage
Religion		
Buddhism	254	64.6
Islam	117	29.8
Christianity	22	5.6
School level		
Grade 10	136	34.6
Grade 11	113	28.8
Grade 12	144	36.6
Current resident		
Home	293	74.6
Apartment	57	14.5
Relative's house	35	8.9
Private dormitory	8	2.0
Students live with		
Father/Mother	272	69.2
No one	42	10.7
Relatives	42	10.7
Friends	36	9.2
Lover	1	0.3
Students discuss about sexuality and reproductive health with *(Choose more than one person)*		
Friends	322	81.9
Lover	227	57.8
Mother	152	38.7
Father	111	28.2
Elder brother/sister	54	13.7
Boyfriend/Girlfriend	50	12.7

4.2 Social and sexual risk behaviors acceptance

Table 4.2 showed adolescents' acceptance on social and sexual behaviors. The mean of all social behaviors acceptance in male were higher than female. The mean of sexual behaviors acceptance in male were mostly higher than female, excepted two statements that the mean acceptance in female were higher than male. These are "Boy

who receive money or gifts in exchange for sexual intercourse" and "Girl who receive money or gifts in exchange for sexual intercourse".

Male adolescents accepted statements of risk behaviors in the topic "Boy who are going out for party, night club or pub" (35.7%) the mean was 2.27, followed by "Girl who are going out for party, night club or pub" (24.7%) the mean was 2.10, and "Boy who are drinking alcoholic beverage" (24.0%) the mean was 2.10, respectively.

Female adolescents accepted statements of risk behaviors in the topic "Boy who are going out for party, night club or pub" (40.6%) the mean was 2.23, followed by "Smoking in boys" (25.1%) the mean was 1.91, and "Boy who are drinking alcoholic beverage" (21.8%) the mean was 1.97, respectively.

Table 4.2 Percentage, mean, and standard deviation of adolescents acceptance on risk behaviors (n=393; male = 154, female = 239)

Behaviors	%			Mean	S.D.
	Accepted	Neutral	Unaccepted		
1. Boy who are going out for party, night club or pub					
Male	35.7	55.2	9.1	2.27	0.62
Female	40.6	42.2	17.2	2.23	0.72
2. Girl who are going out for party, night club or pub					
Male	24.7	60.4	14.9	2.10	0.62
Female	18.0	55.6	26.4	1.92	0.66
3. Smoking in boy					
Male	18.8	56.5	24.7	1.94	0.66
Female	25.1	40.6	34.3	1.91	0.77
4. Smoking in girl					
Male	11.7	45.4	42.9	1.69	0.67
Female	7.5	42.7	49.8	1.58	0.63
5. Boy who are drinking alcoholic beverage					
Male	24.0	61.7	14.3	2.10	0.61
Female	21.8	53.1	25.1	1.97	0.69
6. Girl who are drinking alcoholic beverage					
Male	13.6	59.8	26.6	1.87	0.62
Female	14.2	52.3	33.5	1.81	0.66

Table 4.2 (continued)

Behaviors	%			Mean	S.D.
	Accepted	Neutral	Unaccepted		
7. Drug addiction in boy					
Male	5.2	39.0	55.8	1.49	0.60
Female	7.9	28.9	63.2	1.45	0.64
8. Drug addiction in girl					
Male	6.5	28.6	64.9	1.42	0.61
Female	5.0	25.5	69.5	1.36	0.58
9. Boy who are watching erotic movies					
Male	11.0	73.4	15.6	1.95	0.52
Female	9.6	64.0	26.4	1.83	0.58
10. Girl who are watching erotic movies					
Male	14.3	68.2	17.5	1.97	0.56
Female	7.1	65.3	27.6	1.79	0.55
11. Boy who are having sexual intercourse experience					
Male	14.9	62.4	22.7	1.92	0.61
Female	7.9	60.3	31.8	1.76	0.58
12. Girl who are having sexual intercourse experience					
Male	13.0	57.8	29.2	1.84	0.63
Female	5.9	59.0	35.1	1.71	0.57
13. Boy who have more than one sexual partnerships in a year					
Male	9.7	57.2	33.1	1.77	0.61
Female	8.4	45.6	46.0	1.62	0.64
14. Girl who have more than one sexual partnerships in a year					
Male	7.8	42.8	49.4	1.58	0.63
Female	8.8	32.2	59.0	1.50	0.65
15. Boy who pay money or gifts in exchange for sexual intercourse					
Male	7.8	36.4	55.8	1.52	0.64
Female	6.7	33.0	60.3	1.46	0.62
16. Girl who pay money or gifts in exchange for sexual intercourse					
Male	7.8	29.9	62.3	1.45	0.64
Female	5.0	31.4	63.6	1.41	0.59
17. Boy who receive money or gifts in exchange for sexual intercourse					
Male	4.5	30.6	64.9	1.40	0.58
Female	7.9	29.3	62.8	1.45	0.64

Table 4.2 (continued)

Behaviors	%			Mean	S.D.
	Accepted	Neutral	Unaccepted		
18. Girl who receive money or gifts in exchange for sexual intercourse					
Male	2.6	28.6	68.8	1.34	0.53
Female	3.8	29.9	65.3	1.38	0.56
19. Boy who have one night stand experience					
Male	6.5	29.9	63.6	1.43	0.61
Female	5.9	29.2	64.9	1.41	0.60
20. Girl who have one night stand experience					
Male	1.9	29.3	68.8	1.33	0.51
Female	1.3	28.0	70.7	1.31	0.49

Male adolescents accepted risk behaviors in neutral level (68.2%), followed by accepted level (23.4%) and some of them reported in unaccepted level on risk behaviors (8.4%). Female adolescents accepted risk behaviors in neutral level (61.5%), followed by unaccepted level (20.1%) and some of them reported in accepted level on risk behaviors (18.4%). Details were showed in Table 4.3.

Table 4.3 Level of risk social and sexual behaviors acceptance (n=393)

Risk behaviors	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Accepted ($\geq$ 41.3)	36	23.4	44	18.4
Neutral (25.8 – 41.2)	105	68.2	147	61.5
Unaccepted ($\leq$ 25.7)	13	8.4	48	20.1
Total	**154**	**100.0**	**239**	**100.0**

Total score 60, Min 20, Max 52, Mean 33.5, S.D. 7.8

(Male; Min 20, Max 52, Mean 34.4, S.D. 7.3, Female; Min 20, Max 51, Mean 32.9, S.D. 8.0)

4.3 Attitudes toward premarital sex

Attitudes toward premarital sex of male adolescents by self evaluation found that they strongly agreed on the statement of "It is normal in boys to have premarital sex" (15.6%) the mean was 3.35, followed by "Premarital sex may cause unwanted outcomes such as STIs/HIV, pregnancy" (11.0%) the mean was 2.77, and "There is

nothing wrong for adolescents to pay money or gifts in exchange for sexual intercourse" (10.4%) the mean was 2.98.

Female adolescents strongly agreed on the statement of "Premarital sex may cause unwanted outcomes such as STIs/HIV, pregnancy" (15.5%) the mean was 2.83, followed by "Girls should be virgins when they are married" (14.6%) the mean was 2.70, and "It is normal in boys to have premarital sex" (10.9%) the mean was 3.08, respectively. Details were showed in Table 4.4.

Table 4.4 Attitudes toward premarital sex of adolescents
(n=393; male = 154, female = 239)

Statement	%					Mean	S.D.
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
1. It is normal in boys to have premarital sex							
Male	15.6	33.8	25.3	20.8	4.5	3.35	1.11
Female	10.9	32.6	24.3	18.4	13.8	3.08	1.22
2. Girls should be virgins when they are married*							
Male	5.2	43.5	34.4	13.0	3.9	2.67	0.91
Female	14.6	30.5	34.9	10.0	10.0	2.70	1.14
3. It is nothing wrong with unmarried boys and girls having sexual intercourse							
Male	5.8	24.7	37.7	19.5	12.3	2.92	1.08
Female	5.0	22.2	33.0	19.7	20.1	2.72	1.16
4. One night stand is acceptable for adolescence							
Male	7.1	33.1	28.0	20.8	11.0	3.05	1.13
Female	6.3	21.3	32.7	16.7	23.0	2.71	1.21
5. It is normal in girls to have premarital sex							
Male	10.4	18.8	37.0	15.6	18.2	2.88	1.22
Female	3.3	17.2	34.8	21.3	23.4	2.56	1.12
6. Premarital sex may cause unwanted outcomes such as STIs/HIV, pregnancy*							
Male	11.0	34.4	27.3	20.8	6.5	2.77	1.10
Female	15.5	23.8	33.9	15.5	11.3	2.83	1.20
7. There is nothing wrong for adolescents to pay money or gifts in exchange for sexual Intercourse							
Male	10.4	24.0	33.1	18.2	14.3	2.98	1.19
Female	7.5	17.2	25.1	21.3	28.9	2.53	1.28

Table 4.4 (continued)

Statement	%					Mean	S.D.
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
8. There is nothing wrong for adolescents to receive money or gifts in exchange for sexual intercourse							
Male	6.5	21.4	40.9	18.2	13.0	2.90	1.08
Female	5.4	14.2	32.7	19.7	28.0	2.49	1.19
9. Boy and girl should have sex before they become engaged to see whether they are suited to each other							
Male	2.6	20.1	31.2	32.5	13.6	2.66	1.03
Female	5.9	13.8	33.4	24.3	22.6	2.56	1.15

* *Negative statements toward premarital sex*

Male adolescents reported attitudes toward premarital sex in neutral level (72.7%), followed by positive to premarital sex (14.3%) and negative to premarital sex (13.0%), respectively. Whereas, female adolescents reported attitudes toward premarital sex in neutral level (70.3%), followed by negative to premarital sex (20.9%) and positive to premarital sex (8.8%). Details were showed in Table 4.5.

Table 4.5 Level of attitudes toward premarital sex of adolescents (n=393)

Attitudes	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Positive to premarital sex ($\geq$ 31.4)	22	14.3	21	8.8
Neutral (18.7 – 31.3)	112	72.7	168	70.3
Negative to premarital sex ($\leq$ 18.6)	20	13.0	50	20.9
Total	**154**	**100.0**	**239**	**100.0**

Total score 45, Min 9, Max 40, Mean 25.0, S.D. 6.4

(Male; Min 9, Max 40, Mean 26.2, S.D. 5.7, Female; Min 9, Max 40, Mean 24.2, S.D. 6.7)

4.4 Sources of information on sexuality and reproductive health

Table 4.6 provided the sources of reproductive health information which those adolescents retrieved. The first three sources of each topic were teachers (81.7%) second, health personnel (72.5%) and third, internet (61.8%) for reproductive

anatomy, health personnel (78.6%) second, teachers (77.9%) and third, books/magazines/newspapers (67.4%) for STIs/HIV, teachers (80.9%) second, internet (65.9%) and third, television (61.8%) for abortion and its related complications, teachers (71.2%) second, health personnel (67.7%) and third, books/magazines/newspapers (60.3%) for contraceptive, from first, teachers (73.5%) second, health personnel (62.8%) and third, mother (59.0%) for pregnancy, and teachers (79.1%) second, internet (56.5%) and third, books/magazines/newspapers (45.8%) for reproductive physiology.

Table 4.6 Sources of information on reproductive health education*

Sources of information	Reproductive health education n (%)					
	Reproductive anatomy	STIs/HIV	Abortion and its related omplications	Contraceptive	Pregnancy	Reproductive physiology
Health personnel	285 (72.5)	309 (78.6)	234 (59.5)	266 (67.7)	247 (62.8)	174 (44.3)
Father	58 (14.8)	115 (29.3)	53 (13.5)	92 (23.4)	120 (30.5)	50 (12.7)
Mother	86 (21.9)	86 (21.9)	63 (16.0)	170 (43.3)	232 (59.0)	67 (17.0)
Relatives	31 (7.9)	55 (14.0)	55 (14.0)	94 (23.9)	98 (24.9)	50 (12.7)
Teachers	321 (81.7)	306 (77.9)	318 (80.9)	280 (71.2)	289 (73.5)	311 (79.1)
Friends	92 (23.4)	79 (20.1)	132 (33.6)	141 (35.9)	146 (37.2)	57 (14.5)
Lover	106 (27.0)	80 (20.4)	77 (19.6)	107 (27.2)	111 (28.2)	85 (21.6)
Boyfriend/ Girlfriend	59 (15.0)	62 (15.8)	97 (24.7)	159 (40.5)	140 (35.6)	58 (14.8)
Elder brothers/ sisters	61 (15.5)	85 (21.6)	103 (26.2)	122 (31.0)	134 (34.1)	75 (19.1)
Younger brothers/ sisters	66 (16.8)	69 (17.6)	66 (16.8)	85 (21.6)	54 (13.7)	65 (16.5)
Television	128 (32.6)	150 (38.2)	243 (61.8)	138 (35.1)	212 (53.9)	96 (24.4)
Movies	102 (26.0)	109 (27.7)	198 (50.4)	100 (25.4)	162 (41.2)	67 (17.0)
Books/Magazines/ Newspapers	165 (42.0)	265 (67.4)	230 (58.5)	237 (60.3)	218 (55.5)	180 (45.8)
Radio	79 (20.1)	96 (24.4)	173 (44.0)	114 (29.0)	107 (27.2)	91 (23.2)
Internet	243 (61.8)	261 (66.4)	259 (65.9)	232 (59.0)	219 (55.7)	222 (56.5)

* *Choose more than one sources*

Table 4.7 provided the sources of sexuality health information which those adolescents retrieved. The first three sources of each topic were internet (64.9%) second, television (58.8%) and third, books/magazines/newspapers (58.5%) for gender, internet (53.7%) second, friends (52.7%) and third, lover (46.6%) for sexual orientation, internet (60.6%) second, teachers (54.5%) and third, books/magazines/newspapers (48.3%) for sexual relationship, internet (54.7%) second, teachers (49.4%) and third, television (44.5%) for sexual arousal, and boyfriend/girlfriend (43.3%) second, elder brothers/sisters (35.6%) and third, lover (30.5%) for sexual abuse.

Table 4.7 Sources of information on sexuality health education*

Sources of information	Sexuality health education n (%)				
	Gender	**Sexual Orientation**	**Sexual relationship**	**Sexual arousal**	**Sexual abuse**
Health personnel	154 (39.2)	99 (25.2)	117 (29.8)	117 (29.8)	71 (18.1)
Father	83 (21.1)	59 (15.0)	82 (20.9)	90 (22.9)	119 (30.3)
Mother	66 (16.8)	62 (15.8)	69 (17.6)	106 (27.0)	79 (20.1)
Relatives	59 (15.0)	71 (18.1)	66 (16.8)	84 (21.4)	56 (14.2)
Teachers	228 (58.0)	175 (44.5)	214 (54.5)	194 (49.4)	112 (28.5)
Friends	117 (29.8)	207 (52.7)	175 (44.5)	122 (31.0)	79 (20.1)
Lover	51 (13.0)	183 (46.6)	136 (34.6)	115 (29.3)	120 (30.5)
Boyfriend/Girlfriend	76 (19.3)	138 (35.1)	117 (29.8)	61 (15.5)	170 (43.3)
Elder brothers/sisters	55 (14.0)	88 (22.4)	136 (34.6)	77 (19.6)	140 (35.6)
Younger brothers/sisters	28 (7.1)	129 (32.8)	41 (10.4)	50 (12.7)	109 (27.7)
Television	231 (58.8)	160 (40.7)	147 (37.4)	175 (44.5)	52 (13.2)
Movies	214 (54.5)	181 (46.1)	147 (37.4)	122 (31.0)	110 (28.0)
Books/Magazines/Newspapers	230 (58.5)	169 (43.0)	190 (48.3)	173 (44.0)	84 (21.4)
Radio	125 (31.8)	85 (21.6)	93 (23.7)	37 (9.4)	72 (18.3)
Internet	255 (64.9)	211 (53.7)	238 (60.6)	215 (54.7)	117 (29.8)

** Choose more than one sources*

4.5 Current met needs on sexuality and reproductive health education

Table 4.8 showed the current met needs learning on reproductive health education of adolescents by self evaluation. The results in male found that the current met needs that they strongly agree was “Reproductive anatomy” (24.7%) the mean was 3.62, followed by “STIs/HIV” (13.0%) the mean was 3.27, and “Abortion and its related complications” (5.2%) the mean was 3.06. The results in female found that the current met needs that they strongly agree was “Reproductive anatomy” (22.6%) the mean was 3.56, followed by “Reproductive physiology” (7.1%) the mean was 2.95, and “STIs/HIV” (6.7%) the mean was 3.09, respectively.

For sexuality health education of male adolescents found that the current met needs that they strongly agree was “Gender” (9.1%) the mean was 3.07, followed by “Sexual arousal” (9.1%) the mean was 2.99, and “Sexual relationship” (6.5%) the mean was 2.99. The results in female found that the current met needs that they strongly agree was “Gender” (7.1%) the mean was 2.99, followed by “Sexual arousal” (7.1%) the mean was 2.9), and “Sexual abuse” (5.4%) the mean was 2.64, respectively.

Table 4.8 Percentage, mean and standard deviation of adolescents’ current met needs on sexuality and reproductive health education (n=393; male = 154, female = 239)

Sexuality and reproductive health education	%					Mean S.D.	
	Very strong	Strong	Moderate	Slight	Very slight		
Reproductive health education							
1. Reproductive anatomy							
Male	24.7	31.8	28.6	10.4	4.5	3.62	1.10
Female	22.6	28.0	35.6	10.9	2.9	3.56	1.05
2. STIs/HIV							
Male	13.0	26.0	40.3	16.2	4.5	3.27	1.03
Female	6.7	23.8	45.7	19.2	4.6	3.09	0.94
3. Abortion and its related complications							
Male	5.2	28.6	42.2	15.6	8.4	3.06	0.99
Female	5.4	23.4	37.8	28.0	5.4	2.95	0.98

Table 4.8 (continued)

Sexuality and reproductive health education		%					Mean	S.D.
		Very strong	Strong	Moderate	Slight	Very slight		
4. Contraceptive								
	Male	5.2	18.8	37.7	33.1	5.2	2.86	0.96
	Female	3.8	23.8	47.3	22.6	2.5	3.04	0.95
5. Pregnancy								
	Male	5.2	22.1	39.0	29.2	4.5	2.94	0.95
	Female	4.6	21.8	44.3	23.0	6.3	2.95	0.94
6. Reproductive physiology								
	Male	5.2	27.9	37.1	24.0	5.8	3.03	0.98
	Female	7.1	18.8	39.8	30.1	4.2	2.95	0.97
Sexuality health education								
7. Gender								
	Male	9.1	24.0	35.7	27.3	3.9	3.07	1.02
	Female	7.1	23.0	36.4	28.5	5.0	2.99	1.00
8. Sexual orientation								
	Male	4.5	23.4	39.6	27.3	5.2	2.95	0.95
	Female	3.8	20.9	43.9	27.2	4.2	2.93	0.89
9. Sexual relationship								
	Male	6.5	21.4	41.6	26.0	4.5	2.99	0.96
	Female	3.3	20.1	40.6	33.5	2.5	2.88	0.87
10. Sexual arousal								
	Male	9.1	12.3	49.4	26.6	2.6	2.99	0.93
	Female	7.1	13.0	48.1	28.0	3.8	2.92	0.92
11. Sexual abuse								
	Male	2.6	16.9	27.3	44.8	8.4	2.60	0.95
	Female	5.4	10.5	34.8	41.4	7.9	2.64	0.96

Male students reported that current met needs on reproductive health education served their needs in moderate level (61.7%), followed by high level (23.4%), and low level (14.9%). Female students reported that current met needs on reproductive health education served their needs in moderate level (65.7%), followed

by high level (18.4%), and low level (15.9%). The current met needs on reproductive health education in female was higher than in male. Details were showed in Table 4.9.

Table 4.9 Level of current met needs on reproductive health education (n=393)

Current met needs	Male		Female	
	Frequency	Percentage	Frequency	Percentage
High (≥ 21.9)	36	23.4	44	18.4
Moderate (15.4 – 21.8)	95	61.7	157	65.7
Low (≤ 15.3)	23	14.9	38	15.9
Total	**154**	**100.0**	**239**	**100.0**

Total score 30, Min 11, Max 28, Mean 18.6, S.D. 3.3

(Male; Min 11, Max 28, Mean 18.8, S.D. 3.2, Female; Min 11, Max 28, Mean 18.5, S.D.3.3)

Male students reported that current met needs on sexuality health education served their needs in moderate level (69.5%), followed by low level (16.2%), and high level (14.3%). Female students reported that current met needs on sexuality health education served their needs in moderate level (66.1%), followed by low level (18.8%), and high level (15.1%). The current met needs on sexuality health education in male was higher than in female. Details were showed in Table 4.10.

Table 4.10 Level of current met needs on sexuality health education (n=393)

Current met needs	Male		Female	
	Frequency	Percentage	Frequency	Percentage
High (≥ 17.5)	22	14.3	36	15.1
Moderate (11.6 – 17.4)	107	69.5	158	66.1
Low (≤ 11.5)	25	16.2	45	18.8
Total	**154**	**100.0**	**239**	**100.0**

Total score 25, Min 6, Max 24, Mean 14.5, S.D. 3.0

(Male; Min 6, Max 24, Mean 14.6, S.D. 3.0, Female; Min 6, Max 22, Mean 14.4, S.D. 3.0)

4.6 Felt needs on sexuality and reproductive health education

Table 4.11 showed the felt needs on reproductive health education of adolescents by self evaluation. The results found that they strongly agree was "Reproductive anatomy" (13.2%) the mean was 3.38, followed by "Contraceptive" (9.9%) the mean was 3.11, and "Reproductive physiology" (9.2%) the mean was 3.04.

For sexuality health education found that the felt needs that they strongly agree was “Sexual relationship” (8.1%) the mean was 3.17, followed by “Gender” and “Sexual orientation” (7.4%) the mean was 3.11, and “Sexual arousal” (5.9%) the mean was 2.99, respectively.

Table 4.11 Percentage, mean and standard deviation of adolescents' felt needs on sexuality and reproductive health education (n = 393)

Sexuality and reproductive health education	%					Mean	S.D.
	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree		
Reproductive health education							
1. Reproductive anatomy	13.2	32.8	35.9	15.0	3.1	3.38	0.53
2. STIs/HIV	8.9	26.0	41.7	21.4	2.0	3.18	0.50
3. Abortion and its related complications	6.4	19.1	42.5	27.0	5.1	2.95	0.47
4. Contraceptive	9.9	23.4	36.6	28.0	2.0	3.11	0.42
5. Pregnancy	8.9	22.1	40.7	25.7	2.5	3.09	0.45
6. Reproductive physiology	9.2	21.6	35.6	30.8	2.8	3.04	0.40
Sexuality health education							
7. Gender	7.4	24.9	41.5	23.4	2.8	3.11	0.49
8. Sexual orientation	7.4	24.9	41.5	23.4	2.8	3.11	0.49
9. Sexual relationship	8.1	22.6	49.4	17.6	2.3	3.17	0.57
10. Sexual arousal	5.9	20.9	42.5	28.2	2.5	2.99	0.48
11. Sexual abuse	5.6	19.8	27.7	36.9	9.9	2.74	0.34

Most students reported that their felt needs on reproductive health education were in moderate level (66.4%), followed by high level (17.8%), and low level (15.8%). Details were showed in Table 4.12.

Table 4.12 Level of felt needs on reproductive health education (n=393)

Needs	Frequency	Percentage
High (≥ 22.8)	70	17.8
Moderate (14.9 – 22.7)	261	66.4
Low (≤ 14.8)	62	15.8

Total score 30, Min 10, Max 30, Mean 18.8, S.D. 4.0

Most students reported that their felt needs on sexuality health education were in moderate level (64.4%), followed by low level (22.4%), and high level (13.2%). Details were showed in Table 4.13.

Table 4.13 Level of felt needs on sexuality health education (n=393)

Needs	Frequency	Percentage
High (≥ 18.1)	52	13.2
Moderate (12.2 – 18.0)	253	64.4
Low (≤ 12.1)	88	22.4

Total score 25, Min 7, Max 25, Mean 15.1, S.D. 3.0

4.7 The relationship between factors and felt needs on reproductive and sexuality health education

The relationship between gender and felt needs on reproductive health education in male students found that their felt needs on reproductive health education were in moderate level 70.8%, followed by high level (16.2%) and low level (13.0%). Female adolescents reported in moderate level 63.6%, followed by high level (18.8%) and low level (17.6%).

Felt needs on sexuality health education in male students were in moderate level 64.9%, followed by low level (22.1%), and high level (13.0%). Female students reported their needs on sexuality health education in moderate level (64.0%), followed by low level (22.6%) and high level (13.4%).

Chi-square was used to test for the relationship between gender and felt needs on reproductive and sexuality health education and found that there were not significant. Details were showed in Table 4.14.

Table 4.14 Relationship between gender and felt needs on reproductive and sexuality health education (n=393)

Gender	Reproductive health education n (%)			*p-value*	Sexuality health education n (%)			*p-value*
	Low	Moderate	High		Low	Moderate	High	
Male	20	109	2	0.312	34	100	2	0.983
	(13.0)	(70.8)	(16.2)		(22.1)	(64.9)	(13.0)	
Female	42	152	4		54	153	3	
	(17.6)	(63.6)	(18.8)		(22.6)	(64.0)	(13.4)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

Most of adolescents' felt needs on reproductive health education of all age groups were in moderate level. There was no relationship between age and felt needs on reproductive health education.

Fisher's exact was used to test for the relationship and found the statistically significant between age and felt needs on sexuality health education (p-value < 0.05). Students in 15 years old group desired the felt needs on sexuality health education in high level (50.0%). The percentage of their felt needs decreased in the group of 16 years old, alternated increased and decreased. Finally, students' felt needs on sexuality health education seemed to increase in the eldest group (17.9%). Details were showed in Table 4.15.

Table 4.15 Relationship between age and felt needs on reproductive and sexuality health education (n=393)

Age	Reproductive health education n (%)			Exact *p-value*	Sexuality health education n (%)			Exact *p-value*
	Low	Moderate	High		Low	Moderate	High	
15 years old	0	3	3	0.304	0	3	3	0.041
	(0)	(50.0)	(50.0)		(0)	(50.0)	(50.0)	
16 years old	13	69	10		20	65	7	
	(14.1)	(75.0)	(10.9)		(21.7)	(70.7)	(7.6)	
17 years old	20	65	20		28	60	17	
	(19.0)	(61.9)	(19.0)		(26.7)	(57.1)	(16.2)	
18 years old	25	106	31		38	104	20	
	(15.4)	(65.4)	(19.1)		(23.5)	(64.2)	(12.3)	
19 years old	4	18	6		2	21	5	
	(14.3)	(64.3)	(21.4)		(7.1)	(75.0)	(17.9)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

Most of adolescents' felt needs on reproductive health education of all religions were in moderate level.

Fisher's exact was used to test for the relationship and found the statistically significant between religion and felt needs on sexuality health education (p-value < 0.05). Christian students had the most felt needs on sexuality health education in high level (22.7%) on sexuality health education, followed by Muslim students (15.4%) and the last group was Buddhist students (11.4%). The highest desire of adolescents' felt needs on sexuality health education was found in Christian and the lowest desire was in Buddhist. Details were showed in Table 4.16.

Table 4.16 Relationship between religion and felt needs on reproductive and sexuality health education (n=393)

Religion	Reproductive health education n (%)			Exact *p-value*	Sexuality health education n (%)			Exact *p-value*
	Low	Moderate	High		Low	Moderate	High	
Buddhism	37 (14.6)	173 (68.1)	44 (17.3)	0.612	67 (26.4)	158 (62.2)	29 (11.4)	0.033
Islam	23 (19.7)	73 (62.4)	21 (17.9)		16 (13.7)	83 (70.9)	18 (15.4)	
Christianity	2 (9.1)	15 (68.2)	5 (22.7)		5 (22.7)	12 (54.5)	5 (22.7)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

The relationship between school level and felt needs on reproductive found that felt needs on reproductive health education of Grade 10 were in moderate level (72.1%), followed by low level (15.4%), high level (12.5%). Felt needs of Grade 11 were in moderate level (63.7%), followed by low level (15.9%), high level (20.4%). Felt needs of Grade 12 were in moderate level (63.2%), followed by high level (20.8%), low level (16.0%).

Felt needs on sexuality health education of Grade 10 were in moderate level (66.9%), followed by low level (22.8%), high level (10.3%). Felt needs of Grade 11 were in moderate level (64.6%), followed by low level (19.5%), high level (15.9%). Felt needs of Grade 12 were in moderate level (61.8%), followed by low level (24.3%), high level (13.9%), respectively.

Chi-square was used to test for the relationship between school level and felt needs on reproductive and sexuality health education and found that there were not significant. Details were showed in Table 4.17.

Table 4.17 Relationship between school level and felt needs on reproductive and sexuality health education (n=393)

School level	Reproductive health education n (%)			*p-value*	Sexuality health education n (%)			*p-value*
	Low	Moderate	High		Low	Moderate	High	
Grade 10	21	98	1	0.365	31	91	1	0.642
	(15.4)	(72.1)	(12.5)		(22.8)	(66.9)	(10.3)	
Grade 11	18	72	2		22	73	1	
	(15.9)	(63.7)	(20.4)		(19.5)	(64.6)	(15.9)	
Grade 12	23	91	3		35	89	2	
	(16.0)	(63.2)	(20.8)		(24.3)	(61.8)	(13.9)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

The relationship between current resident and felt needs on reproductive health education found that felt needs on reproductive health education of whom stayed in their home were in moderate level (66.9%), followed by low level (17.1%), high level (16.0%). Felt needs of those stayed in apartment were in moderate level (57.9%), followed by high level (24.6%), and low level (17.5%). Felt needs of whom stayed in their relative's house were in moderate level (74.3%), followed by high level (22.9%), low level (2.9%). The last for those stayed in private dormitory were in moderate level (75.0%), followed by high and low level in equally (12.5%).

Felt needs on sexuality health education of whom stayed in their home were in moderate level (63.5%), followed by low level (23.5%), high level (13.0%). Felt needs of whom stayed in apartment were in moderate level (66.7%), followed by low level (21.1%), and high level (12.3%). Felt needs of those stayed in their relative's house were in moderate level (68.6%), followed by high level (17.1%), and low level (14.3%), The last for those stayed in private dormitory were in moderate level (62.5%), followed by low level (25.0%), and high level (12.5%),respectively.

Fisher's exact was used to test for the relationship between current resident and felt needs on reproductive and sexuality health education and found that there were not significant. Details were showed in Table 4.18.

Table 4.18 Relationship between current resident and felt needs on reproductive and sexuality health education (n=393)

Current resident	Reproductive health education n (%)			Exact *p-value*	Sexuality health education n (%)			Exact *p-value*
	Low	Moderate	High		Low	Moderate	High	
Home	50 (17.1)	196 (66.9)	47 (16.0)	0.167	69 (23.5)	186 (63.5)	38 (13.0)	0.911
Apartment	10 (17.5)	33 (57.9)	14 (24.6)		12 (21.1)	38 (66.7)	7 (12.3)	
Relative's house	1 (2.9)	26 (74.3)	8 (22.9)		5 (14.3)	24 (68.6)	6 (17.1)	
Private Dormitory	1 (12.5)	6 (75.0)	1 (12.5)		2 (25.0)	5 (62.5)	1 (12.5)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

The relationship between person who students live with and felt needs on reproductive found that felt needs on reproductive health education of those lived with father/mother were in moderate level (69.0%), followed by low level (16.7%), and high level (14.3%). Felt needs of students who lived oneself were in moderate level (65.4%), followed by low level (18.4%), and high level (16.2%). Felt needs on reproductive health education of students who lived with relatives were in moderate level (71.4%), followed by high level (26.2%), and low level (2.4%). Students who lived with friend/lover, their felt needs on reproductive health education were in moderate level (64.9%), followed by high level (24.3%), and low level (10.8%).

Felt needs on sexuality health education of students who lived with father/mother were in moderate level (81.0%), followed by low level (14.3%), and high level (4.8%). Felt needs of those lived oneself were in moderate level (60.7%), followed by low level (25.0%), and high level (14.3%). Felt needs on reproductive health education of students who lived with relatives were in moderate level (73.8%), followed by high level (14.3%), and low level (11.9%). Students who lived with friend/lover, their felt needs on reproductive health education were in moderate level (62.2%), followed by low level (24.3%), and high level (13.5%), respectively.

Chi-square was used to test for the relationship between person who students live with and felt needs on reproductive and sexuality health education. The results found that there were not significant. Details were showed in Table 4.19.

Table 4.19 Relationship between person who students live with and felt needs on reproductive and sexuality health education (n=392)*

Live with	Reproductive health education n (%)			*p-value*	Sexuality health education n (%)			*p-value*
	Low	Moderate	High		Low	Moderate	High	
Father/Mother	7	29	6	0.123	6	34	2	0.136
	(16.7)	(69.0)	(14.3)		(14.3)	(81.0)	(4.8)	
No one	50	178	44		68	165	39	
	(18.4)	(65.4)	(16.2)		(25.0)	(60.7)	(14.3)	
Relatives	1	30	11		5	31	6	
	(2.4)	(71.4)	(26.2)		(11.9)	(73.8)	(14.3)	
Friends / Lover	4	24	9		9	23	5	
	(10.8)	(64.9)	(24.3)		(24.3)	(62.2)	(13.5)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

Chi-square was used to test for the relationship and found that friends, father, and elder brother/sister were statistical significant relation to felt needs on reproductive health education (p-value < 0.05). Students who discussed with friends had felt needs on reproductive health education in high level (20.5%) more than those who did not discuss with their friends (5.6%). Students' felt needs who discussed with their mother, father, and elder brother/sister were less than those who did not.

Lover, father, elder brother/sister, and boyfriend/girlfriend were statistical significant relation to felt needs on sexuality health education (p-value < 0.05). Students who discussed with lover had felt needs on sexuality health education more than those who did not. Students' felt needs who discussed with their elder brother/sister were less than those who did not. Details were showed in Table 4.20.

Table 4.20 Relationship between person who students discuss with and felt needs on reproductive and sexuality health education*

Person	Reproductive health education (%)			*p-value*	Sexuality health education (%)			*p-value*
	Low	Moderate	High		Low	Moderate	High	
Friends	17.1	62.4	20.5	0.001	22.4	63.4	14.3	0.409
	9.9	84.5	5.6		22.5	69.0	8.5	
Lover	17.2	63.9	18.9	0.454	31.4	55.9	13.7	< 0.001
	13.9	69.9	16.3		11.4	75.9	12.7	
Mother	11.8	73.7	14.5	0.051	20.4	65.1	14.5	0.686
	18.3	61.8	19.9		23.7	63.9	12.4	
Father	5.4	80.2	14.4	< 0.001	10.8	73.9	15.3	0.003
	19.9	61.0	19.1		27.0	60.6	12.4	
Elder brother/	5.6	83.3	11.1	0.015	1.9	87.0	11.1	< 0.001
sister	17.4	63.7	18.9		25.7	60.8	13.6	
Boyfriend/	18.0	66.0	16.0	0.866	38.0	50.0	12.0	0.017
Girlfriend	15.5	66.5	18.1		20.1	66.5	13.4	

* *Choose more than one person*

The felt needs on reproductive health education in male students in the group of accepted risk behaviors were in moderate level (75.0%), followed by low level (16.7%), and high level (8.3%). The group of neutral risk behaviors were in moderate level (67.6%), followed by high level (19.0%), and low level (13.3%). The group of unaccepted risk behaviors were in moderate level (84.6%), followed by high level (15.4%).

Female students found that felt needs on reproductive health education the group of accepted risk behaviors were in moderate level (65.9%), followed by low level (27.3%), and high level (6.8%). The group of neutral risk behaviors were in moderate level (61.2%), followed by high level (19.7%), and low level (19.0%). The group of unaccepted risk behaviors were in moderate level (68.8%), followed by high level (27.1%), and low level (4.2%).

Fisher's exact was used to test for the relationship and found that risk behaviors acceptance of female students and felt needs on reproductive health

education was statistically significant (p-value < 0.05). Female students in the group of unaccepted on risk behaviors had the most felt needs on reproductive health education, followed by the group of neutral on risk behaviors, and the last one that had the least felt needs was the group of accepted on risk behaviors.

Felt needs on sexuality health education in male students found that the group of accepted risk behaviors were in moderate level (52.8%), followed by low level (38.9%), and high level (8.3%). The group of neutral risk behaviors were in moderate level (65.7%), followed by low level (19.0%), and high level (15.2%). The group of unaccepted risk behaviors were in moderate level (92.3%), followed by high level (7.7%).

Female students found that felt needs on sexuality health education in the group of accepted risk behaviors were in low level (50.0%), followed by moderate level (47.7%), and high level (2.3%). The group of neutral risk behaviors were in moderate level (66.7%), followed by low level (19.0%), and high level (14.3%). The group of unaccepted risk behaviors were in moderate level (70.8%), followed by high level (20.8%), and low level (8.3%), respectively.

Fisher's exact was used to test for the relationship and found that risk behaviors acceptance of both male and female students were statistically significant to felt needs on sexuality health education (p-value < 0.05). The results in both male and female students showed in same direction; the most accepted of risk behaviors, the least felt needs on sexuality health education in adolescents. Details were showed in Table 4.21.

Table 4.21 Relationship between risk behaviors acceptance and felt needs on reproductive and sexuality health education (n=393)

Risk behaviors acceptance	Reproductive health education n (%)			Exact *p-value*	Sexuality health education n (%)			Exact *p-value*
	Low	Moderate	High		Low	Moderate	High	
Male								
Accepted	6	27	3	0.335	14	19	3	0.021
	(16.7)	(75.0)	(8.3)		(38.9)	(52.8)	(8.3)	
Neutral	14	71	20		20	69	16	
	(13.3)	(67.6)	(19.0)		(19.0)	(65.7)	(15.2)	
Unaccepted	0	11	2		0	12	1	
	(0.0)	(84.6)	(15.4)		(0.0)	(92.3)	(7.7)	
Female								
Accepted	12	29	3	0.011	22	21	1	< 0.001
	(27.3)	(65.9)	(6.8)		(50.0)	(47.7)	(2.3)	
Neutral	28	90	29		28	98	21	
	(19.0)	(61.2)	(19.7)		(19.0)	(66.7)	(14.3)	
Unaccepted	2	33	13		4	34	10	
	(4.2)	(68.8)	(27.1)		(8.3)	(70.8)	(20.8)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

The relationship between attitudes toward premarital sex and felt needs on reproductive found that felt needs on reproductive health education in male students in the group of positive to attitudes toward premarital sex were in moderate level (81.8%), followed by low level and high level equally (9.1%). The group of neutral to attitudes toward premarital sex were in moderate level (68.8%), followed by high level (16.1%), and low level (15.2%). The group of negative to attitudes toward premarital sex were in moderate level (70.0%), followed by high level (25.0%), and low level (5.0%).

Female students found that felt needs on reproductive in the group of positive to attitudes toward premarital sex were in moderate level (52.4%), followed by low level (28.6%), and high level equally (19.0%). The group of neutral to attitudes toward premarital sex were in moderate level (69.0%), followed by low level (16.1%),

and high level (14.9%). The group of negative to attitudes toward premarital sex were in moderate level (50.0%), followed by high level (32.0%), and low level (18.0%), respectively.

Chi-square was used to test for the relationship and found that attitudes toward premarital sex in female and felt needs on reproductive health education was statistically significant (p-value < 0.05). Female students in the group of positive to premarital sex had the highest felt needs on reproductive health education with the same direction of the group of negative to premarital sex that had the least felt needs on reproductive health education.

Felt needs on sexuality health education in male students in the group of positive to attitudes toward premarital sex were in moderate level (63.6%), followed by low level (27.3%), and high level (9.1%). The group of neutral to attitudes toward premarital sex were in moderate level (63.4%), followed by low level (23.2%), and high level (13.4%). The group of negative to attitudes toward premarital sex were in moderate level (75.0%), followed by high level (15.0%), and low level (10.0%).

Female students found that felt needs on sexuality health education in the group of positive to attitudes toward premarital sex were in moderate level (52.4%), followed by low level (33.3%), and high level (14.3%). The group of neutral to attitudes toward premarital sex were in moderate level (64.9%), followed by low level (24.4%), and high level (10.7%). The group of negative to attitudes toward premarital sex were in moderate level (66.0%), followed by high level (22.0%), and low level (12.0%), respectively.

Chi-square was used to test for the relationship and found that attitudes toward premarital sex and felt needs on sexuality health education was not significant. Details were showed in Table 4.22.

Table 4.22 Relationship between attitudes toward premarital sex and felt needs on reproductive and sexuality health education (n=393)

Attitudes	Reproductive health education n (%)			Exact *p -value*	Sexuality health education n (%)			Exact *p -value*
	Low	Moderate	High		Low	Moderate	High	
Male								
Positive	2 (9.1)	18 (81.8)	2 (9.1)	0.442	6 (27.3)	14 (63.6)	2 (9.1)	0.672
Neutral	17 (15.2)	77 (68.8)	18 (16.1)		26 (23.2)	71 (63.4)	15 (13.4)	
Negative	1 (5.0)	14 (70.0)	5 (25.0)		2 (10.0)	15 (75.0)	3 (15.0)	
Female								
Positive	6 (28.6)	11 (52.4)	4 (19.0)	0.035	7 (33.3)	11 (52.4)	3 (14.3)	0.093
Neutral	27 (16.1)	116 (69.0)	25 (14.9)		41 (24.4)	109 (64.9)	18 (10.7)	
Negative	9 (18.0)	25 (50.0)	16 (32.0)		6 (12.0)	33 (66.0)	11 (22.0)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

The felt needs in high level on reproductive health education of students who retrieved reproductive anatomy information from elder brothers/sisters (6.6%), Accessed the information about abortion and its related complication from lover (13.0%), television (22.6%), internet (11.2%). For pregnancy, students accessed the information from television (22.2%). They retrieved the information on reproductive physiology from their mother (7.5%).

Chi-square was used to test for the relationship and found that elder brothers/sisters, lover, television, internet, and mother were statistically significant relation to felt needs on reproductive health education (p-value < 0.05). Adolescents who accessed to reproductive anatomy information from elder brothers/sisters, abortion and its related complication from lover and internet, and reproductive

physiology from their mother had less felt needs reproductive health education than those did not. Contrary, the information of abortion and its related complication and pregnancy from television had more felt needs on reproductive health education than those did not.

The felt needs in high level on sexuality health education, students got gender information from teacher (17.1%) and internet (16.5%). They learned about sexual orientation from books/magazines/newspaper (19.5%)

Chi-square was used to test for the relationship and found that teachers, internet, and books/magazines/newspaper sources were statistically significant relation to felt needs on sexuality health education (p-value < 0.05). Students who accessed information for gender from teacher and internet, and for sexual orientation from books/magazines/newspaper had more felt needs on sexuality education than those did not. Details were showed in Table 4.23.

Table 4.23 Relationship between sources of information and felt needs on reproductive and sexuality health education

Sources of information*	Yes (%)			No (%)			*p-value*
	Low	Moderate	High	Low	Moderate	High	
Reproductive anatomy							
Elder brothers/sisters	26.2	67.2	6.6	13.9	66.3	19.9	0.006
Abortion and its related complication							
Lover	24.7	62.3	13.0	13.6	67.4	19.0	0.043
Television	16.0	61.3	22.6	15.3	74.7	10.0	0.004
Internet	18.7	70.1	11.2	14.3	64.5	21.2	0.039
Pregnancy							
Television	13.2	64.6	22.2	18.8	68.5	12.7	0.029
Reproductive physiology							
Mother	22.4	70.1	7.5	14.4	65.6	19.9	0.026
Gender							
Teacher	21.5	61.4	17.1	23.6	68.5	7.9	0.029
Internet	22.0	61.6	16.5	23.2	69.6	7.2	0.035

Table 4.23 (continued)

Sources of information*	Yes (%)			No (%)			*p-value*
	Low	Moderate	High	Low	Moderate	High	
Sexual orientation							
Books/Magazines / Newspapers	20.7	59.8	19.5	12.1	71.4	16.5	0.030

* *Data showed significant sources only*

The relationship between current met needs on reproductive health education and felt needs on reproductive health education found that felt needs on reproductive health education of male students in high current met needs of reproductive health education were in moderate level (66.7%), followed by high level (33.3%). In the group of moderate current met needs were in moderate level (72.6%), followed by low level (15.8%), and high level (11.6%). In the group of low current met needs were in moderate level (69.6%), followed by low level (21.7%), and high level (8.7%).

Felt needs on reproductive health education of female students in high current met needs were in high level (54.5%), followed by moderate level (38.6%), and low level (6.8%). In the group of moderate current met needs were in moderate level (72.0%), followed by low level (15.9%), and high level (12.1%). In the group of low current met needs were in moderate level (57.9%), followed by low level (36.8%), and high level (5.3%), respectively.

Felt needs on sexuality health education of male students in high current met needs of sexuality health education were in moderate level (69.4%), followed by high level (22.2%), and low level (8.3%). In the group of moderate current met needs were in moderate level (67.4%), followed by low level (21.1%), and high level (11.6%). In the group of low current met needs were in moderate and low level (47.8%), followed by high level (4.3%).

Felt needs on sexuality health education of female students in high current met needs of sexuality health education were in moderate level (50.0%), followed by high level (40.9%), and low level (9.1%). In the group of moderate current met needs were in moderate level (69.4%), followed by low level (22.9%), and high level (7.6%). In

the group of low current met needs were in moderate level (57.9%), followed by low level (36.8%), and high level (5.3%), respectively.

The relationship between current met needs on reproductive health education was statistically significant relation to felt needs on sexuality health education (p-value < 0.05). The same direction was found in both male and female students. Students in high met needs group had the least felt needs on reproductive and sexuality health education. Students in low level of met needs group had the most felt needs on reproductive and sexuality health education. Details were showed in Table 4.24.

Table 4.24 Relationship between current met needs on reproductive health education and felt needs on reproductive and sexuality health education (n=393)

Current met needs	Reproductive health education n (%)			*p-value*	Sexuality health education n (%)			*p-value*
	Low	Moderate	High		Low	Moderate	High	
Male								
High	0 (0.0)	24 (66.7)	12 (33.3)	0.004*	3 (8.3)	25 (69.4)	8 (22.2)	0.004*
Moderate	15 (15.8)	69 (72.6)	11 (11.6)		20 (21.1)	64 (67.4)	11 (11.6)	
Low	5 (21.7)	16 (69.6)	2 (8.7)		11 (47.8)	11 (47.8)	1 (4.3)	
Female								
High	3 (6.8)	17 (38.6)	24 (54.5)	< 0.001	4 (9.1)	22 (50.0)	18 (40.9)	< 0.001
Moderate	25 (15.9)	113 (72.0)	19 (12.1)		36 (22.9)	109 (69.4)	12 (7.6)	
Low	14 (36.8)	22 (57.9)	2 (5.3)		14 (36.8)	22 (57.9)	2 (5.3)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

* Exact *p-value*

The relationship between current met needs on sexuality health education and needs on reproductive health education found that felt needs on reproductive health education of male students in high current met needs sexuality health education were in moderate level (59.1%), followed by high level (31.8%), and low level (9.1%). In the group of moderate current met needs were in moderate level (76.6%), followed by high level (16.8%), and low level (6.5%). In the group of low current met needs were in moderate level (56.0%), followed by low level (44.0%).

Felt needs on reproductive health education of female students in high current met needs were in high level (58.3%), followed by moderate level (38.9%), and low level (2.8%). In the group of moderate current met needs were in moderate level (73.4%), followed by high level (14.6%), and low level (12.0%). In the group of low current met needs were in moderate and low level (48.9%), followed by high level (2.2%).

Fisher's exact was used to test for the relationship between current met needs on sexuality health education in both male and female students. The results found that there were statistically significant relation to felt needs on reproductive health education (p-value < 0.05).

Felt needs on sexuality health education of male students in high current met needs sexuality health education were in moderate level (77.3%), followed by high level (22.7%). In the group of moderate current met needs were in moderate level (69.2%), followed by low level (17.8%), and high level (13.1%). In the group of low current met needs were in low level (60.0%), followed by moderate level (36.0%), and high level (4.0%).

Felt needs on sexuality health education of female students in high current met needs sexuality health education were in high level (50.0%), followed by moderate level (44.4%), and low level (5.6%). In the group of moderate current met needs were in moderate level (75.3%), followed by low level (17.7%), and high level (7.0%). In the group of low current met needs were in low level (53.3%), followed by moderate level (40.0%), and high level (6.7%), respectively.

Fisher's exact was used to test for the relationship. The results found the current met needs on sexuality health education was statistically significant relation to felt needs on reproductive and sexuality health education (p-value < 0.05). Male students in high level of met needs on sexuality health education had the highest felt needs on reproductive and sexuality health education compared to those students in

moderate and low met needs. Female students in high met needs on sexuality health education had the highest felt needs on reproductive and sexuality health education, and in low met needs sexuality health education had the lowest felt needs on reproductive and sexuality health education. Details were showed in Table 4.25.

Table 4.25 Relationship between current met needs on sexuality health education and felt needs on reproductive and sexuality health education (n=393)

Current met needs	Reproductive health education n (%)			Exact *p-value*	Sexuality health education n (%)			Exact *p-value*
	Low	Moderate	High		Low	Moderate	High	
Male								
High	2 (9.1)	13 (59.1)	7 (31.8)	< 0.001*	0 (0.0)	17 (77.3)	5 (22.7)	< 0.001*
Moderate	7 (6.5)	82 (76.6)	18 (16.8)		19 (17.8)	74 (69.2)	14 (13.1)	
Low	11 (44.0)	14 (56.0)	0 (0.0)		15 (60.0)	9 (36.0)	1 (4.0)	
Female								
High	1 (2.8)	14 (38.9)	21 (58.3)	< 0.001*	2 (5.6)	16 (44.4)	18 (50.0)	< 0.001*
Moderate	19 (12.0)	116 (73.4)	23 (14.6)		28 (17.7)	119 (75.3)	11 (7.0)	
Low	22 (48.9)	22 (48.9)	1 (2.2)		24 (53.3)	18 (40.0)	3 (6.7)	
Total	**62**	**261**	**70**		**88**	**253**	**52**	

CHAPTER V
DISCUSSION, CONCLUSION AND RECCOMMENDATION

This cross-sectional study was done in a provincial secondary school in Yala province as a purposive sampling. The objectives of this study were to study socio-demographic characteristics, risk behaviors acceptance, attitudes toward premarital sex, sources of information on sexuality and reproductive health, explore current met needs and expected of adolescents' needs on sexuality and reproductive health education, and study the relationship between these factors and adolescents' felt needs on sexuality and reproductive health education of secondary school adolescents in Yala province by self-administered questionnaires.

5.1 Discussion

This study was done to assess the felt needs on reproductive and sexuality health education among 393 secondary school adolescents in Yala. 60.8% were female and 39.2% were male, average of age was 17.3 years old. However, there were limitations of this study that it was a purposive sampling to select a provincial school as a study area which is not an overall of secondary school in Yala province. Some amount of students by convenient sampling were included in this study instead of those non-completed response questionnaires and may have an affect to data analyzation. The highlight finding of their religion was Buddhism. This result was different from religion proportion of Yala population.

The study found that 69.2% of adolescents lived with their father/mother in their home. However, 81.9% of them discussed about sexuality and reproductive health with their friends, 57.8% discussed with lover. This result indicated that friend was the first priority for those students to talk to. Similar a study was done by Creel, L.C. and Perry, R.J. (2002) found that young people learn about sex from their friends, 57.8% of adolescents discuss with their lover. This finding was comparable to a study in young people that parents are failing to discuss sex with their child (Creel and Perry, 2002), but this study showed that the third group whose students discussed sexuality and reproductive health education was their mother.

Male adolescents accepted boy who are going out for party, night club or pub, drinking alcoholic beverage, smoking. This finding of their accepted could be

forecasted that they may have chance to act risk behaviors. The acceptable of drinking alcoholic beverage and smoking were similar to a study found that the use of cigarettes, alcohol or drugs, were associated with permissive attitudes (Mohammad et al., 2006). The study of reproductive knowledge, attitudes and behavior among adolescent males in Tehran, Iran found that sexual experience was associated with alcohol consumption are the strongest predictors of sexual experience (Mohammad, 2006).

The study found that both male and female students accepted for risk social behaviors of drug addiction in boys and girls. Although they accepted in moderate level, the regulation and control students by school should be consider. There was interesting results for risk sexual behaviors acceptance that female students had higher mean than male students on both boy and girl who receive money or gifts in exchange for sexual intercourse.

Attitudes toward premarital sex of both male and female students by self evaluation found that one of statements which they agree was "It is normal in boys to have premarital sex". This research did not conduct research tool to ask them for sexual intercourse experience, just ask them whether they have positive, neutral or negative attitudes toward premarital sex. However, the statement that they agreed may cause them to have premarital sex. A study in Nairobi, Kenya found that sexual activity was associated with various factors including religiosity, perceived attitudes towards sex, and living arrangements (Kabiru and Orpinas, 2009). This attitude was similar compared to a survey study in Thailand found that Thai youth having sexual experience, 98% of male youth and 70% of female youth ever had premarital sex (Chai Podhisita and Xenos, 2009), liked a study in SongKhla, Thailand reported that 9.3% of the sample had an initial sexual relationship between 12-19 years of age (Ingkathawornwong et al., 2007), and a survey study in secondary school students and vocational schools across Thailand found that attitudes towards premarital sex in adolescents are that it is acceptable especially among males and without responsibility (Aree Prohmmo, 2007). There was a study of sexual behaviors of vocational students in Yala municipality found that they used to have sexual intercourse about 26.2% (Awatip Wae, 2006) 18.9 % of Muslim youth in three southern provinces of Thailand used to have sexual intercourse and approximately 50% of the males and 11% of females reported having had sexual intercourse at least once in their lifetime with a significant proportion reporting multiple sexual partnerships (Kabiru and Orpinas,

2009), sexually active adolescents place themselves at risk of a sexual transmitted infection (STIs) when they engage in unprotected sex (WHO, 2004).

Availability to access vital sources of information on sexuality and reproductive health education is one of the necessary factors in adolescent health. The study found that students retrieved reproductive health information from their teachers in the highest percentage, range from more than 50% to about 82% of them. Whereas internet was the first source of sexuality health education. Internet became common for students to access information that they are interested in. Other sources that they accessed to reproductive and sexuality health education were books/magazines/newspapers, television, friends, lover, and boyfriend/girlfriend. Similar a study in young people was found that they learn about sex from their friends or through the media, such as the internet, television, and movies (Creel and Perry, 2002) online content and internet activities with a sexual character are widespread. Positive or negative consequences may result depending on how the internet is used in various social contexts for activities of a sexual nature (Doring, 2009).

The current met needs on sexuality and reproductive health education of adolescents found that all education topics of reproductive and sexuality health education served their needs in moderate level, the topic of sexual abuse education could not served their needs (42.7%) but the interesting finding was most of them did not need sexual abuse education (36.9%). It was a negative of finding of students' needs, it may cause from teaching technique or commonplace of activities in class and in school. It similar to a study of Eisenberg (2008) found that sexuality education in public schools is the incompatibility between current policies and prevailing opinions among youth (Eisenberg, 8008).

The relationship between factors and felt needs on reproductive health education were found that person who students discuss with (friends, father, and elder brother/sister), risk behaviors acceptance of female students, attitudes toward premarital sex in female, sources of information (television), current met needs on reproductive health education in female, current met needs on sexuality health education in both male and female students were statistically significant relation to felt needs on reproductive health education (p-value < 0.05). For the risk behaviors acceptance, similar to a study was presented that socio-demographic, behavioral, and psychosocial factors associated with sexual activity among a sample of high-school students (Kabiru and Orpinas, 2009).

For factors and sexuality health education were found that religion, person who students discuss with (lover, father, elder brother/sister, and boyfriend/girlfriend), risk behaviors acceptance of both male and female students, sources of information (teachers and internet), current met needs on reproductive health education in female, current met needs on sexuality health education in both male and female students were statistically significant relation to felt needs on sexuality health education (p-value < 0.05). A study found that sexual and reproductive health requires knowledge of normal physiology and development, healthy expressions of sexuality, an understanding of the consequences of sexual and reproductive behaviors (Shaw, 2009).

5.2 Conclusion

Socio-demographic characteristics

Total of 393 secondary school adolescents in Yala, most were female (60.8%). Most students are 18 years old (41.3%). Their religion is Buddhism (64.6%). They studied in Grade 12 (36.6%) Grade 10 (34.6%) and Grade 11 (28.8%), respectively. They stay in their home as a current resident (74.6%). Most of them lived with their father/mother (69.2%). Most adolescents discussed about sexual and reproductive health with their friends (81.9%).

Risk behaviors acceptance

Male adolescents accepted risk behaviors in moderate level (68.2%) as same as female adolescents accepted risk behaviors in moderate level (61.5%).

Attitudes toward premarital sex

Male adolescents reported attitudes toward premarital sex in neutral level (72.7%) and female adolescents reported attitudes toward premarital sex in neutral level (70.3%).

Sources of information on sexuality and reproductive health

The first sources of information on reproductive and sexuality health education were teachers for reproductive anatomy, abortion and its related complications, contraceptive, pregnancy, reproductive physiology and from health

personnel for STIs/HIV, and the sources for sexuality health education were from internet source for gender, sexual orientation, sexual relationship, sexual arousal and from boyfriend/girlfriend for sexual abuse.

Current met needs on sexuality and reproductive health education

Both male and female students reported that current met needs on reproductive health education served their needs in moderate level (61.7% for male and 65.7% for female). Current met needs on sexuality health education served their needs in moderate level (69.5% for male and 66.1% for female).

Felt needs on sexuality and reproductive health education

Most students reported that their felt needs on reproductive health education and sexuality health education were in moderate level (66.4% and 64.4%, respectively).

The relationship between factors and felt needs on reproductive and sexuality health education

The relationship between factors and felt needs on reproductive health education were found that person who students discuss with (friends, father, and elder brother/sister), risk behaviors acceptance of female students, attitudes toward premarital sex in female, sources of information (television), current met needs on reproductive health education in female, current met needs on sexuality health education in both male and female students were statistically significant relation to felt needs on reproductive health education (p-value < 0.05).

For factors and sexuality health education were found that religion, person who students discuss with (lover, father, elder brother/sister, and boyfriend/girlfriend), risk behaviors acceptance of both male and female students, sources of information (teachers and internet), current met needs on reproductive health education in female, current level on sexuality health education in both male and female students were statistically significant relation to felt needs on sexuality health education (p-value < 0.05).

5.3 Recommendation

5.3.1 Program implementation

The study found that most adolescents stayed in their home as a current resident, lived with their father/mother, they discussed about sexuality and reproductive health with their friends. This could extrapolate that there was generation gap between their father and/or mother. If father and/or mother take more attention and try to understand their child, those adolescents would trust and discuss sexuality and reproductive health with them more.

Male adolescents accepted risk behaviors in moderate level (68.2%), followed by accepted level (23.4%) and female adolescents accepted risk behaviors in moderate level (61.5%). Most accepted get more risk behaviors, this finding should conduct learning program to enhance suitable behaviors and make them be aware of behaviors associated with STIs/HIV.

Male adolescents reported attitudes toward premarital sex in neutral level (72.7%), followed by positive to premarital sex (14.3%) and female adolescents reported attitudes toward premarital sex in neutral level (70.3%). The highest mean of male adolescents' attitudes toward premarital sex was "It is normal in boys to have premarital sex". For this attitude, boys tend to have premarital sex. So that the life skill is necessary for them to have safe sex, prevent them from STIs/HIV and unwanted pregnancy, abortion and related complication of their sexual partnership.

Both male and female students reported that current met needs on sexuality and reproductive health education served their needs in moderate level (61.7% for male and 65.7% for female). Teachers played an importance role in teaching and learning. They should conduct learning materials and activities in order to serve their needs on sexuality and reproductive health education.

5.3.2 Further research

The sources of reproductive health information which those adolescents retrieved for reproductive anatomy, abortion and its related complications, contraceptive, pregnancy and reproductive physiology were from teachers. The participation research should be conducted for the next study.

The sources of sexuality health information which those adolescents retrieved for gender, sexual orientation, sexual relationship, and sexual arousal were from

internet. The action research for sexuality health education materials should be considered for further study.

The results of students' current met needs and felt needs on sexuality health education by topics were found that education on sexual abuse did not serve their needs, but they reported they had no felt needs on this topic. Next study, qualitative data should be added to combine to quantitative outcomes and qualitative study should be implementation for further study to evaluate adolescents' need by focus group or in-depth interview.

5.4 Limitation

The sample of this study was a purposive sampling that select a provincial school as a study area which is not an overall of secondary school in Yala province. However, this school had many students entered from all districts.

Some amount of students were included in this study by convenient sampling instead of those non-completed response questionnaires and may have an effect for data analyzing.

The finding of students' religion was Buddhism. This result was different from religion proportion of population's religion in Yala province where had had majority of Muslim.

The inform process on background and rationale, objectives of the study, the operation definitions of terms in the research, reason for study in this school and school level, and contents of each part of the questionnaires before data collecting were only 4 classrooms of students at Grade 11 were explained in their classroom. Whereas Grade 10 students were introduced and explained by group and some of them were introduced by face to face, and Grade 12 students were explained in school auditorium where they came back to school to have the last session and ceremony of finished education.

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APPENDICES

APPENDIX A Questionnaires in English

Questionnaires

NEEDS ASSESSMENT ON SEXUALITY AND REPRODUCTIVE HEALTH EDUCATION OF ADOLESCENTS IN YALA

Part 1 : Socio-demographic factors

Please, mark (✓) in ☐ or write your answer in the blank**.**

1) Sex
   - ☐ [1] Male
   - ☐ [2] Female

2) Age……..years……..months

3) Religion
   - ☐ [1] Islam
   - ☐ [2] Buddhism
   - ☐ [3] Christianity
   - ☐ [4] Other (please specify)…….

4) School level
   - ☐ [1] Grade 10
   - ☐ [2] Grade 11
   - ☐ [3] Grade 12

5) Current resident
   - ☐ [1] Home
   - ☐ [2] Apartment
   - ☐ [3] Relative's house
   - ☐ [4] Private dormitory
   - ☐ [5] Other (please specify)……..

6) For present, who do you live with?
   - ☐ [1] No one
   - ☐ [2] Father/Mother
   - ☐ [3] Relatives
   - ☐ [4] Friends
   - ☐ [5] Lover who are still not having sexual intercourse
   - ☐ [6] Boyfriend/Girlfriend whose you have sexual intercourse
   - ☐ [7] Other (please specify)…….

7) Who do you talk with if you would like to discuss about sexual and reproductive health? *(Choose more than one boxes if applicable)*

- ☐ [1] Father
- ☐ [2] Mother
- ☐ [3] Teacher
- ☐ [4] Relatives
- ☐ [5] Elder brother/sister
- ☐ [6] Younger brother/sister
- ☐ [7] Friends
- ☐ [8] Lover who are still not having sexual intercourse
- ☐ [9] Boyfriend/Girlfriend whose you have sexual intercourse
- ☐ [10] Nobody
- ☐ [11] Other (please specify)…….

Part 2 : Risk behaviors acceptance in Grade 10 – 12 students

Please, mark (✓) in the blank to which you agree or disagree with the following statements in terms of 1 for “Unacceptable”, 2 for “Neutral”, and 3 for “Acceptable”.

Risk behaviors	Acceptable (3)	Neutral (2)	Unacceptable (1)
1. Boy who are going out for party, night club or pub			
2. Girl who are going out for party, night club or pub			
3. Smoking in boy			
4. Smoking in girl			
5. Boy who are drinking alcoholic beverage			
6. Girl who are drinking alcoholic beverage			
7. Drug addiction in boy			
8. Drug addiction in girl			
9. Boy who are watching erotic movies			
10. Girl who are watching erotic movies			
11. Boy who are having sexual intercourse experience			
12. Girl who are having sexual intercourse experience			
13. Boy who have multiple sexual partnerships (more than one people in a year)			
14. Girl who have multiple sexual partnerships (more than one people in a year)			
15. Boy who pay money or gifts in exchange for sexual intercourse			
16. Girl who pay money or gifts in exchange for sexual intercourse			

Risk behaviors	Acceptable (3)	Neutral (2)	Unacceptable (1)
17. Boy who receive money or gifts in exchange for sexual intercourse			
18. Girl who receive money or gifts in exchange for sexual intercourse			
19. Boy who have one night stand experience			
20. Girl who have one night stand experience			

Part 3 : Attitudes toward premarital sex

Please, mark (✓) in the blank to which you agree or disagree with the following statements in terms of 1 for "strongly disagree", 2 for "disagree", 3 for "neither agree nor disagree", 4 for "agree", and 5 for "strongly agree".

Statement	Strongly agree (5)	Agree (4)	Neither agree nor disagree (3)	Disagree (2)	Strongly disagree (1)
1. It is normal in boys to have premarital sex					
2. Girls should be virgins when they are married					
3. It is nothing wrong with unmarried boys and girls having sexual intercourse					
4. One night stand is acceptable for adolescence					
5. It is normal in girls to have premarital sex					

Statement	Strongly agree (5)	Agree (4)	Neither agree nor disagree (3)	Disagree (2)	Strongly disagree (1)
6. Premarital sex may cause unwanted outcomes such as STIs/HIV, pregnancy					
7. There is nothing wrong for adolescents to pay money or gifts in exchange for sexual intercourse					
8. There is nothing wrong For adolescents to receive money or gifts in exchange for sexual intercourse					
9. A boy and a girl should have sex before they become engaged to see whether they are suited to each other					

Part 4 : Sources of information on sexuality and reproductive health

Please, mark (✓) in ☐ or write your answer in the blank**.** You can mark more than one check boxes for each item.

Sources of information	**Sexuality and reproductive health topics**										
	1. Reproductive anatomy	2. STIs/HIV	3. Abortion and its related complications	4. Contraceptive	5. Pregnancy	6.Reproductive physiology	7. Gender	8. Sexual Orientation	9. Sexual relationship	10. Sexual arousal	11. Sexual abuse
1. Health personnel											
2. Father											
3. Mother											
4. Relatives											
5. Teachers											
6. Friends											
7. Lover who are still not having sexual intercourse											
8. Boyfriend/Girlfriend whose you have sexual intercourse											
9. Elder brothers/sisters											
10.Younger brothers/sisters											
11. Television											
12. Movies											
13. Books/Magazines/ Newspapers											
14. Radio											
15. Internet											
16. Other (please specify)											

Part 5 : Current met needs and felt needs on sexuality and reproductive health education

Please, mark (✓) in the blank to which you agree or disagree with the following statements in terms of 1 for "strongly disagree/ strongly not desire", 2 for "disagree/ not desire", 3 for "neutral", 4 for "agree/ desire", and 5 for "strongly agree/ strongly desire".

Sexuality and reproductive health topics	Current met needs on sexuality and reproductive health education					Felt needs on sexuality and reproductive health education				
	Very strong (5)	Strong (4)	Moderate (3)	Slight (2)	Very slight (1)	Strongly desire (5)	Desire (4)	Neutral (3)	Not desire (2)	Strongly not desire (1)
Reproductive health topics										
1. Reproductive anatomy										
2. STIs/HIV										
3. Abortion and its related complications										
4. Contraceptive										
5. Pregnancy										
6. Reproductive physiology										
Sexuality topics										
7. Gender (Gender identity, Gender role, Gender expression)										
8. Sexual Orientation										
9. Sexual relationship										
10. Sexual arousal										
11. Sexual abuse										

Thank you very much for participating in this research.

APPENDIX B Questionnaires in Thai

แบบสอบถาม

การประเมินความต้องการศึกษาเรื่องเพศและสุขภาวะทางเพศ ของวัยรุ่นระดับมัธยมศึกษาตอนปลาย จังหวัดยะลา

ตอนที่ 1 : ข้อมูลพื้นฐานทั่วไป

โปรดทำเครื่องหมายถูก (✓) ในช่องที่ตรงกับความเป็นจริงหรือเติมข้อความในช่องว่าง

1. เพศ

   ☐ [1] ชาย

   ☐ [2] หญิง

2. อายุ.....ปี.....เดือน

3. ศาสนา

   ☐ [1] อิสลาม

   ☐ [2] พุทธ

   ☐ [3] คริสต์

   ☐ [4] อื่นๆ (โปรดระบุ).....

4. ระดับชั้นที่เรียน

   ☐ [1] มัธยมศึกษาปีที่ 4

   ☐ [2] มัธยมศึกษาปีที่ 5

   ☐ [3] มัธยมศึกษาปีที่ 6

5. ที่พักปัจจุบัน

   ☐ [1] บ้าน

   ☐ [2] อพาร์ทเม้นท์

   ☐ [3] บ้านญาติ

   ☐ [4] หอพักเอกชน

   ☐ [5] อื่นๆ (โปรดระบุ).....

6. ปัจจุบันนักเรียนอาศัยอยู่กับใคร

   ☐ [1] อยู่คนเดียว

   ☐ [2] บิดา/มารดา

   ☐ [3] ญาติ

   ☐ [4] เพื่อน

   ☐ [5] คนรัก (ตนเอง คู่ของตนเอง และบุคคลรอบข้างรับรู้ แต่ยังไม่เคยมีเพศสัมพันธ์)

☐ [6] แฟนหรือเพื่อนที่มีความสัมพันธ์ทางเพศ (มีเพศสัมพันธ์กัน)

☐ [7] อื่นๆ (โปรดระบุ).....

7. นักเรียนปรึกษาพูดคุยกับใคร เกี่ยวกับเรื่องเพศและการเปลี่ยนแปลงทางเพศ (ตอบได้มากกว่า 1 ตัวเลือก ตามความเป็นจริง)

☐ [1] พ่อ

☐ [2] แม่

☐ [3] ครู

☐ [4] ญาติ

☐ [5] พี่

☐ [6] น้อง

☐ [7] เพื่อน

☐ [8] คนรัก (ตนเอง คู่ของตนเอง และบุคคลรอบข้างรับรู้ แต่ยังไม่เคยมีเพศสัมพันธ์)

☐ [9] เพื่อนที่มีความสัมพันธ์ทางเพศ (มีเพศสัมพันธ์กัน)

☐ [10] ไม่เคยคุยกับใครเกี่ยวกับเรื่องดังกล่าว

☐ [11] อื่นๆ (โปรดระบุ).....

ตอนที่ 2 : การยอมรับพฤติกรรมของวัยรุ่นที่กำลังเรียนในระดับมัธยมศึกษาตอนปลาย

โปรดทำเครื่องหมายถูก (✓) ในช่องว่างที่ตรงกับระดับการยอมรับของนักเรียน

พฤติกรรม	ยอมรับ [ทำได้] (3)	เฉยๆ [อาจทดลองทำได้บ้าง] (2)	ไม่ยอมรับ [ไม่ควรทำ] (1)
1. การที่นักเรียน ***ชาย*** เที่ยวตามสถานบันเทิงในยามวิกาล			
2. การที่นักเรียน ***หญิง*** เที่ยวตามสถานบันเทิงในยามวิกาล			
3. การสูบบุหรี่ของนักเรียน ***ชาย***			
4. การสูบบุหรี่ของนักเรียน ***หญิง***			
5. นักเรียน ***ชาย*** ดื่มเหล้าหรือเครื่องดื่มแอลกอฮอล์			
6. นักเรียน ***หญิง*** ดื่มเหล้าหรือเครื่องดื่มแอลกอฮอล์			
7. นักเรียน ***ชาย*** ที่มีการเสพยาเสพติด			
8. นักเรียน ***หญิง*** ที่มีการเสพยาเสพติด			
9. นักเรียน ***ชาย*** ดูภาพยนตร์ประเภทปลุกอารมณ์ทางเพศ			
10. นักเรียน ***หญิง*** ดูภาพยนตร์ประเภทปลุกอารมณ์ทางเพศ			
11. นักเรียน ***ชาย*** ในช่วง ม.ปลาย ที่มีเพศสัมพันธ์			
12. นักเรียน ***หญิง*** ในช่วง ม.ปลาย ที่มีเพศสัมพันธ์			
13. นักเรียน ***ชาย*** ที่มีเพศสัมพันธ์กับบุคคลมากกว่า 1 คน ในรอบ 1 ปี			
14. นักเรียน ***หญิง*** ที่มีเพศสัมพันธ์กับบุคคลมากกว่า 1 คน ในรอบ 1 ปี			
15. นักเรียน ***ชาย*** ที่มีการซื้อบริการทางเพศด้วยเงินหรือสิ่งของ			
16. นักเรียน ***หญิง*** ที่มีการซื้อบริการทางเพศด้วยเงินหรือสิ่งของ			
17. นักเรียน ***ชาย*** ที่รับเงินหรือสิ่งของเพื่อแลกกับการมีเพศสัมพันธ์ (ขายบริการทางเพศ)			
18. นักเรียน ***หญิง*** ที่รับเงินหรือสิ่งของเพื่อแลกกับการมีเพศสัมพันธ์ (ขายบริการทางเพศ)			
19. นักเรียน ***ชาย*** ที่มีเพศสัมพันธ์กับคนที่ไม่รู้จักมาก่อน โดยไม่มีข้อผูกพัน			
20. นักเรียน ***หญิง*** ที่มีเพศสัมพันธ์กับคนที่ไม่รู้จักมาก่อน โดยไม่มีข้อผูกพัน			

ตอนที่ 3 : ทัศนคติต่อการมีเพศสัมพันธ์ก่อนแต่งงาน

โปรดทำเครื่องหมายถูก (✓) ในช่องว่างที่ตรงกับความคิดเห็นของนักเรียน

ข้อความ	เห็นด้วยอย่างยิ่ง (5)	เห็นด้วย (4)	ไม่แน่ใจ (3)	ไม่เห็นด้วย (2)	ไม่เห็นด้วยอย่างยิ่ง (1)
1. การมีเพศสัมพันธ์ก่อนแต่งงานเป็นเรื่องธรรมดาสำหรับผู้ชาย					
2. ผู้หญิงควรรักษาพรหมจารีจนกระทั่งแต่งงาน					
3. ไม่ผิดอะไรที่ชายหญิงจะมีเพศสัมพันธ์ก่อนแต่งงาน					
4. การมีเพศสัมพันธ์กับคนที่ไม่รู้จักมาก่อนโดยไม่มีข้อผูกพัน เป็นเรื่องธรรมดาของวัยรุ่น					
5. เป็นเรื่องธรรมดาของผู้หญิงที่จะมีเพศสัมพันธ์ก่อนแต่งงาน					
6. การมีเพศสัมพันธ์ก่อนแต่งงานอาจก่อให้เกิดปัญหา เช่น โรคติดต่อทางเพศสัมพันธ์ เอดส์ และตั้งครรภ์					
7. ไม่ใช่เรื่องผิดที่จะใช้เงินหรือสิ่งของแลกซื้อบริการทางเพศ					
8. ไม่ใช่เรื่องผิดที่จะรับเงินหรือสิ่งของเพื่อแลกกับการมีเพศสัมพันธ์					
9. ชายหญิงควรมีเพศสัมพันธ์ก่อนแต่งงาน เพื่อดูว่าเข้ากันได้หรือไม่					

ตอนที่ 4 : แหล่งข้อมูลเกี่ยวกับการศึกษาความรู้เรื่องเพศ

โปรดทำเครื่องหมายถูก (✓) ในช่องว่างของแต่ละหัวข้อที่นักเรียนได้รับข้อมูล (แต่ละหัวข้อสามารถเลือกได้มากกว่า 1 แหล่ง ตามความเป็นจริง)

แหล่งข้อมูล	**ประเด็นการศึกษาความรู้เรื่องเพศ***										
	1. โครงสร้างของระบบสืบพันธุ์	2. โรคติดต่อทางเพศสัมพันธ์และเอดส์	3. การเพ้งและอาการแทรกซ้อน	4. การคุมกำเนิด	5. การตั้งครรภ์	6. หน้าที่ของระบบสืบพันธุ์	7. เพศสภาพ	8. ความหลากหลายทางเพศ	9. สัมพันธภาพทางเพศ	10. อารมณ์เพศ	11. ความรุนแรงทางเพศ
1. บุคลากรทางสุขภาพ											
2. บิดา											
3. มารดา											
4. ญาติ											
5. ครู											
6. เพื่อน											
7. คนรัก (ตนเอง คู่ของตนเอง และบุคคลรอบข้างรับรู้ แต่ยังไม่มีเพศสัมพันธ์)											
8. แฟน/เพื่อนที่มีความสัมพันธ์ทางเพศ (มีเพศสัมพันธ์กัน)											
9. พี่											
10. น้อง											
11. โทรทัศน์											
12. ภาพยนตร์											
13. หนังสือ/วารสาร/หนังสือพิมพ์											
14. วิทยุ											
15. อินเตอร์เน็ต											
16. อื่นๆ (โปรดระบุ)											

* **<u>หมายเหตุ</u>** : โปรดดูคำอธิบายเพิ่มเติมของแต่ละประเด็นการศึกษา ในตอนที่ 5

ตอนที่ 5 : ข้อมูลเกี่ยวกับการศึกษาเรื่องเพศที่ได้รับในปัจจุบันและความต้องการของนักเรียน

โปรดทำเครื่องหมายถูก (✓) ในช่องว่างที่ตรงกับการประเมินด้วยตนเองของนักเรียน

หัวข้อเกี่ยวกับการศึกษาเรื่องเพศ	ข้อมูลที่ได้รับในปัจจุบัน					ความต้องการข้อมูลตามความคาดหวัง				
	มากที่สุด (5)	มาก (4)	ปานกลาง (3)	น้อย (2)	น้อยที่สุด (1)	ต้องการอย่างยิ่ง (5)	ต้องการ (4)	ปานกลาง (3)	ไม่ต้องการ (2)	ไม่ต้องการอย่างยิ่ง (1)
ข้อมูลทางเพศที่สัมพันธ์กับโครงสร้างและหน้าที่และการเปลี่ยนแปลงของระบบสืบพันธุ์										
1. โครงสร้างของระบบสืบพันธุ์ (ลักษณะรูปร่าง ขนาด และการเปลี่ยนแปลงของอวัยวะสืบพันธุ์)										
2. โรคติดต่อทางเพศสัมพันธ์และเอดส์										
3. การแท้งและอาการแทรกซ้อนจากการแท้ง/ทำแท้ง										
4. การคุมกำเนิด										
5. การตั้งครรภ์										
6. หน้าที่ของระบบสืบพันธุ์ (การสร้างเซลล์สืบพันธุ์ การฝันเปียก ประจำเดือน และฮอร์โมนที่เกี่ยวข้อง)										
ข้อมูลทางเพศที่เกี่ยวกับ อารมณ์ และสังคม										
7. เพศสภาพ (ได้แก่ ความเป็นชาย ความเป็นหญิง)										
8. ความหลากหลายทางเพศ (อารมณ์ ความรัก ความพอใจทางเพศ ที่มีต่อเพศตรงข้าม เพศเดียวกัน หรือทั้งสองเพศ รวมถึงผู้ไม่มีอารมณ์ต่อบุคคลอื่น)										
9. สัมพันธภาพทางเพศ (ปฏิสัมพันธ์ของนักเรียนที่แสดงออกต่อเพศเดียวกันหรือต่อเพศตรงข้าม เช่น การจีบ การมีคู่รัก การมีเพศสัมพันธ์ การบอกเลิกหรือถูกเลิกจากคนรัก)										
10. อารมณ์เพศ (ความต้องการทางเพศ การเบี่ยงเบนอารมณ์ทางเพศ การสำเร็จความใคร่ด้วยตนเอง)										
11. ความรุนแรงทางเพศ										

ขอขอบคุณที่ให้ความร่วมมือในการตอบแบบสอบถาม

APPENDIX C Reliability test

Part 2 Risk of social and sexual behaviors acceptance

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
P201	23.4000	17.4207	.5998	.8424
P202	24.0000	18.5517	.4456	.8507
P203	23.9667	17.2057	.7195	.8348
P204	24.4667	21.3609	.0000	.8581
P205	23.7000	16.4241	.7469	.8328
P206	24.2333	19.3575	.4804	.8478
P207	24.4667	21.3609	.0000	.8581
P208	24.4667	21.3609	.0000	.8581
P209	23.7000	18.0793	.6122	.8411
P210	24.0000	19.9310	.2588	.8576
P211	24.1000	17.4724	.6828	.8370
P212	24.1667	17.5920	.6829	.8371
P213	24.3333	19.0575	.5579	.8447
P214	24.4333	20.8747	.2715	.8552
P215	24.3000	18.4931	.6695	.8396
P216	24.4333	20.9437	.2297	.8559
P217	24.4333	20.8747	.2715	.8552
P218	24.4333	20.8747	.2715	.8552
P219	24.3667	19.8954	.3629	.8522
P220	24.4667	21.3609	.0000	.8581

Reliability Coefficients

N of Cases = 30.0 N of Items = 20

Alpha = .8557

Part 3 Attitudes toward premarital sex

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
P301	22.2333	21.9782	.6536	.6008
P302	21.4000	32.8000	-.3286	.7685
P303	20.6000	29.4207	-.0685	.7423
P304	22.6000	21.8345	.6145	.6057
P305	23.1667	23.1782	.6608	.6108
P306	23.0667	25.5816	.4368	.6517
P307	20.6333	30.3782	-.1237	.7330
P308	23.1000	21.8172	.6110	.6062
P309	23.1000	21.4724	.6473	.5979
P310	23.0000	22.8276	.6107	.6134

Reliability Coefficients

N of Cases = 30.0 N of Items = 10

Alpha = .6862

APPENDIX D Ethical approval

VITAE

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Education

1999 Bachelor of Education, Rajanagarindra Rajabhat University

2004 Bachelor of Pharmacy, Khonkaen University

Experience

2004 – present	Sirindhorn College of Public Health Yala, Thailand
2000 – 2004	Klaeng Hospital, Rayong, Thailand
1998 – 2000	Chonburi Cancer Center, Chonburi, Thailand

Research

2012 Innovation on Pharmacology Knowledge of Drug used through Short Movie

2011 Effective of Learning Activities through Leaflet to Drug Information Knowledge and Technical Terms in Pharmacology Enhancement

Presentation/Publication

2012 Innovation on Pharmacology Knowledge through Short Movie. The 3rd International Conference on Education and Management Technology. Jeju Island, South Korea, 29 – 30 June, 2012

2012 The Effective of Short Movie Innovation on Pharmacology Knowledge. Journalism and Mass Communication. September 2012 Vol.2, No.9