

Factors Associated with the First Sexual Intercourse among Students : Population-Based Study

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Abstract

Background: According to the current situation, Thai adolescents have premature sex and unprotected sex, resulting in pregnancy problems and sexually transmitted diseases in students. This study aims to study the factors affecting to first sexual intercourse among students : a population-based study. **Methods:** A cross-sectional analytical study was conducted between January 1 and June 30, 2018 among 328 students. That using data from the surveillance participant characteristics for first sexual intercourse among students between the ages of 12-18 years old in the study area, Ubon Ratchathani Province. The instrument used was a self-administered questionnaire. Data analysis was used by EPI Info 7 program and SPSS version 20. Logistic regression analysis was performed to identify the factors associated with first sexual intercourse among students by multivariate analysis (95%CI). **Results:** The results findings revealed that respondents were females 53.0% with an average age of 16.5 ± 2.4 years old. Around 64.6% had experienced sexual intercourse, their first sexual intercourse was found at the average age of 14.1 ± 1.6 years old and did not use a condom when having the first sexual intercourse 44.4%. The multivariate analysis found significantly greater for males 2.15 times ($OR_{adj} = 2.15$, 95%CI= 1.36-3.22), significantly greater for students income >5,000 Bath/month compared to income $\leq 5,001$ Bath/month, 3.35 times ($OR_{adj} = 3.35$, 95%CI= 2.82-7.67), experience alcohol consumption were 6.42 times ($OR_{adj} = 6.42$, 95%CI= 3.75-9.97) and low - medium of the attitude sexually transmitted diseases were 4.88 times ($OR_{adj} = 4.88$, 95%CI= 2.89-6.98). **Conclusion:** The modernized training program in the accurate attitude, first sexual intercourse and sexually transmitted diseases, values, and self-esteem to prevent sexual risk behaviors with appropriate gender norms and the recent era among students need to be considered.

Keywords: First sexual intercourse, Students, Adolescents, Sexually transmitted diseases

Introduction

Adolescents are the ages that go from childhood to adulthood. They are between the ages of 12 and 20,

with females entering the adolescence faster. Males are about 1-2 years old. According to the current situation, Thai adolescents have premature sex and unprotected sex, resulting in pregnancy problems in adolescents.¹ Abortion and sexually transmitted diseases are more likely. As adolescents are of physical, mental, and social, changes in all dimensions are at an age when the need for self-reliance increases. Adolescents are sensitive, easy to change due to the complete sexual development of the hypothalamus, pituitary gland, and gonads, and women have the characteristics of femininity and masculinity. The results of sexual changes bring adolescents to a young age. The sex glands are responsible for the

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production of estrogen and testosterone, both of which cause the body to become young and influential as sexual drivers. Teenagers are the age of wanting to try it. Early adolescents begin to have sexual desire, interest in the opposite sex, and express sexual behaviors, such as being interested and trying to build close relationships.² Talking holding your arm, arranging to be alone, two-on-two. Which makes it possible for there has a sense of satisfaction between each other. Confusion in the role itself between being a child and an adult and a friend has a high influence on the idea. Some teenagers have an emotional imbalance. Cannot adapt to the changes made. Nowadays, Thai society has changed the way of life and culture that embraces western culture values more everyday life, such as dressing. The embrace and handshake has resulted in a decrease in the value of love reserved for Thai culture. Today's teenagers are teenagers in globalization with modern technologies such as internet, mobile phones, and other technologies. It has a social network like Facebook. Line makes communication easy, convenient to meet up, and talk between teenagers. Other environmental influences are that sexual media, alcohol consumption are easily accessible, and this age has changed psychosocial, with emotional expression, swaying, variability, and lack of mental inhibition. When there is sexual driving. As a result, sexual mismanagement is diminished. The students in school and aged between 12-15 years old are the unique sample group that have the transition between children and adolescents. Their social role and environment including self-esteem and sexual values changes.³ As a result, it is considered the beginning of sexual intercourse at the same time. Despite everything, Preventive intervention for adolescents because it is evident that sexual risky behaviors such as having sexual relationships with multiple partners and not using condoms act as factors that increase the STD infection rate.⁴⁻⁵ Therefore, considering the social lifting style and culture aspect in which sexual behaviors and norms are developed, a sexual risky group with a high rate of sexually transmitted disease, infection, and having sexual can be called a vulnerable group to sexual diseases rather than a socially hazardous group.⁶ There is a rarity

on the study based on the first sexual intercourse among student group which is specific.

Objective

This research aimed to determine the factors associated with the first sexual intercourse among students in school, which provide useful information for the planning of counseling on premature sex in the school and parents.

Material and Methods

Research model and sample

A cross-sectional study was conducted between January 1 and June 30, 2018, among students in Ubon Ratchathani province of Thailand. Students aged between 12-18 years old were selected by multistage random sampling. After sample size calculation by using the estimated population mean equation⁷, a total 328 students (including 5% missing cases) with males and females were recruited from schools.

Research instruments

The tool used for this research was a questionnaire, asking students' demographic, had sexual intercourse, attitude ever have sexual intercourse, attitude sexually transmitted diseases and knowledge sexually transmitted diseases.

Human research ethics

In this research, research ethics were considered by the Human Research Ethics Committee, Ubon Ratchathani Provincial Public Health Office, No. SSJ. UB 2563-098 given on 20 October 2020.

Data Analysis

In this study, data were analyzed using frequency, percentage, mean, standard deviation to characterize and risk factors were used to determine the behaviors of the first sexual intercourse among students by univariate analysis and multivariate analysis at the 95% confident interval (95%CI).

Results

Total 328 participants were 154 (47.0%) males and 174 (53.0%) females, average age 16.5 ± 2.4 years old. The results from self-administered questionnaire about risk of characterize behavior and who ever have sexual intercourse among students who ever have sexual intercourse were 212 (64.6%) (Table 1). The mean age of their first sex was 14.1 ± 1.6 years old. The average scores of the attitude ever had sexual intercourse among students were in low and levels. The result shows the participants who ever had sexual intercourse did not use a condom when having the first sexual intercourse 92 (44.4%) participants. The results from univariate analysis found the factor associations between

participant characteristics associated with the first sexual intercourse among students were significantly greater for males when as compared with females, 1.97 times (OR =1.97, 95%CI = 1.24-3.14) significantly greater for student age between 16-18 years old as compared to who age between 12-15 years old, 2.30 times (OR = 2.30, 95%CI= 1.45-3.67) significantly greater for students living alone/lover/friend compared to who were living with parent, 4.48 times (OR = 4.48, 95%CI= 2.71-7.40) significantly greater for students experience substance and experience alcohol when compared to those who had no experience. Participants who had Low - medium of the attitude sexually transmitted diseases were 4.14 times (OR = 4.14, 95%CI = 2.56-6.68) (Table 2).

Table-1: Participants who ever had sexual intercourse among students in Ubon Ratchathani province, Thailand (N=328)

Participants who ever have sexual intercourse	N	%
Yes	212	64.6
No	116	35.4

Table-2: The univariate analysis factors associated with the first sexual intercourse among students

Factors	Participants who ever have sexual intercourse		OR	95%CI	p-value
	Yes (n=212)	No (n=116)			
Sex					
Male	112	42	1.97	1.24-3.14	0.006*
Female	100	74	1.00		
Age (years)					
16-18	124	44	2.30	1.45-3.67	<0.001*
12-15	88	72	1.00		
Living					
living alone/lover/friend	127	29	4.48	2.71-7.40	<0.001*
living with parents	85	87	1.00		
Income (Baht)					

Cont... Table-2: The univariate analysis factors associated with the first sexual intercourse among students

>5,000	118	37	2.86	1.67-4.31	<0.001*
≤ 5,001	94	79	1.00		
Relationships (girlfriend/boyfriend)					
Relationships	168	35	8.84	5.27-14.82	<0.001*
Not in relationships	44	81	1.00		
Experience substance					
Yes	63	15	2.85	1.54-5.28	0.001*
No	149	101	1.00		
Experience alcohol					
Yes	167	45	5.86	3.56-9.63	<0.001*
No	45	71	1.00		
Level of the attitude ever have sexual intercourse among students					
Low - medium	89	42	1.27	0.80-2.03	0.367
Good – very good	123	74	1.00		
Level of the attitude sexually transmitted diseases					
Low - medium	147	41	4.14	2.56-6.68	<0.001*
Good – very good	65	75	1.00		
Level of the knowledge sexually transmitted diseases					
Low level (<80% of corrected answer)	111	54	1.26	0.80-1.99	0.373
High level (≥80% of corrected answer)	101	62	1.00		

**p*-value <0.05

In the multivariate analysis (multiple logistic regressions adjusted for relationships (girlfriend/boyfriend) and experience with alcohol) we found the factor associations between participant characteristics associated with the first sexual intercourse among students were significantly greater for males compared with females, 2.15 times ($OR_{adj} = 2.15$, 95%CI= 1.36-3.22) significantly greater for students age between 16-18 years old as compared to who age between 12-15 years old, 2.68 times ($OR_{adj} = 2.68$, 95%CI= 1.65-3.89) significantly greater for students income >5,000 Bath/

mount compared to income ≤ 5,001 Bath/mount, 3.35 times ($OR_{adj} = 3.35$, 95%CI= 2.82-7.67) significantly greater for students experience alcohol consumption compared to those had no experience were 6.42 times ($OR_{adj} = 6.42$, 95%CI= 3.75-9.97) and participants who had Low - medium of the attitude sexually transmitted diseases were 4.88 times ($OR_{adj} = 4.88$, 95%CI= 2.89-6.98). The result show the level of attitude ever had sexual intercourse among students and the level of knowledge that sexually transmitted diseases not significantly with the first sexual intercourse among students (Table 3).

Table-3: Multivariate analysis factors associated with the first sexual intercourse among students

Factors	Participants who ever have sexual intercourse (n=212)	ORa	ORbadj	95%CI	p-value
Sex					
Male	112	1.97	2.15	1.36-3.22	0.004*
Female	100		1.00		
Age (years)					
16-18	124	2.30	2.68	1.65-3.89	<0.001*
12-15	88		1.00		
Income (Baht)					
≤ 5,000	118	2.86	3.35	2.82-7.67	<0.001*
> 5,001	94		1.00		
Relationships (girlfriend/boyfriend)					
Relationships	168	8.84	10.22	5.89-15.32	<0.001*
Not in relationships	44		1.00		
Experience substance					
Yes	63	2.85	3.12	1.67-5.38	<0.001*
No	149		1.00		
Experience alcohol					
Yes	167	5.86	6.42	3.75-9.97	0.001*
No	45		1.00		
Level of the attitude ever have sexual intercourse among students					
Low - medium	89	1.27	1.34	0.96-2.14	0.344
Good – very good	123		1.00		
Level of the attitude sexually transmitted diseases					
Low - medium	147	4.14	4.88	2.89-6.98	0.003*
Good – very good	65		1.00		
Level of the knowledge sexually transmitted diseases					
Low level (<80% of corrected answer)	111	1.26	1.38	0.93-2.09	0.336
High level (≥80% of corrected answer)	101		1.00		

p-value < 0.05, Goodness of fit = 0.739, Adjusted for Relationship (girlfriend/boyfriend) and Experience alcohol

^a Univariate analysis, Chi-Square test

^b Multivariate analysis, Multiple logistic regression

**p*-value <0.05

Discussion

According to the study, almost half of the e students have ever had a sex with an average age of 14.1 years old for the first time. The rate exceeded national estimates among adolescent samples.⁸ This study presented an earlier age than the previous study by the Ministry of Public Health, Thailand, that found adolescences aged 15-16 years for the first sexual intercourse.⁹ This is likely to continue to decline. Since Thai society is influenced by Western culture, Thai adolescents are imitated and attitudes towards premature sex are common.⁸ And it has not a bad word to follow. Nowadays, Thai teenagers have changed attitudes and behaviors in their sexuality. Teenagers are getting in love, having girlfriends. The adolescents had first sex from an early age. Some couples have been in a relationship for a while, and there may be more than one sexual partner.⁹ The result shows the participants who ever had sexual intercourse did not use a condom when having the first sexual intercourse 92 (44.4%) participants. The first sexual intercourse of adolescents in Thailand does not use condoms up to 50 percent, which is at risk of HIV/aids, sexually transmitted diseases, and pregnancy. Because most teens drink alcohol before the first sex causing forgetting or failing to supply condoms. This study finding was supported by Baokhumkong, et al. that reported causes of the first sexual activity in early adolescence were due to having sexual intercourse but did not use a condom.¹⁰ And most have experienced sex with a boyfriend or a couple without protection. There have been reports on sexually risky behavior in the general population.⁹ Because teenagers believe that sex is a show of affection for each other. Most female students are voluntarily. Most of them were living alone/lovers/friends. These behaviors could increase the first sexual intercourse among students in school. The result found that the risk behaviors of HIV and sexually transmitted diseases among students 132 (62.3%) and 40.3% reported among undergraduate students in Canada, respectively.¹¹⁻¹² The earlier young

women in Northeast Brazil started sexually, the more pregnancies she had until the time of her reproductive life, as well as the greater number of sexual partners.¹³ The multivariate analysis in this study showed that sex, age, income, relationships (girlfriend/boyfriend), experience substance, and experience alcohol were related to having sexual intercourse. All socio-demographic characteristics were related to sexual intercourse and HIV knowledge among Indonesian women (*p*<0.05).¹⁴ The associations between participants characteristics associated with the first sexual intercourse among students were significantly greater for males compared with females, 2.15 times because in Thai society the male was assumed to be the significant person for the decisions about sexual and reproductive health regarding the role of condom use, this effort and decision have to be empowered in both male and female to promote safe sex.^{15,16,17,18} The attitudes and behavior of rural Thai adolescent students aged 16 to 20 years from northern Thailand regarding sexual intercourse were significant differences by gender, religion, ethnicity, and household income between those who had previously had sex.⁸ The level of attitude ever having sexual intercourse among students and the level of knowledge about sexually transmitted diseases had no significant relationship with the first sexual intercourse among students.¹⁵ However, during this study and for many young people who start a sexual life in adolescence, this event is perceived as an opportunity to express the exercise of sexual autonomy and freedom, sensations that express a more emotional than rational meaning.¹⁹ Thai culture parents do not talk openly about sexual, and the condom used for first sexual intercourse is uncommon to carry. It is believed that people who carry condoms are sex workers and obsessed with sex. Therefore, friends, parents, and teachers should be suggested to be a considerable role for promoting the prevention of sexual risk behavior, the effect of not wearing a condom, in addition to HIV/sexually transmitted diseases, and premature pregnancy and encouraging to understand and talk openly regarding sexual issues. Although Thai culture and society are conservative about sexual issues, they currently have been changed dramatically among students.²⁰⁻²¹ The

transition from childhood to adolescence affects the social role to be more freedom and foreign cultures have also influenced the students' lifestyle and show intimacy with public expression of love with their partners.

CONCLUSIONS

The adolescents that are those between 12 and 18 years old, experience a stage of life characterized by late childhood to adolescence, with all their biological and psychosocial changes, being a period that usually coincides with entering into high school. Sexual behavior of youth could have reproductive health outcomes with an impact on individual and general population health²² as a result of the new social and subjective relationships that they should live, making it a vulnerable period of exposure to situations with health risk behaviors, especially those related to lifestyle, such as the use of toxic substances, alcohol and unsafe sexual practices.²³⁻²⁴ Most participants of the study had already begun their sexual life before 15 years old, especially men. There have relationships (girlfriend/boyfriend). Just over half of them were seeking information about sex with friends. Condom use was for the prevention of sexually transmitted infections. Condom was the most commonly known contraceptive and more frequently used while other methods like intra-uterine device, location, amenorrhea, and norplant were rarely mentioned.²⁵ The high school is highlighted as a place of long term for youth, favorable to the construction and reconstruction of knowledge and values. However, due to the plurality of groups that compose it, it favors student's vulnerability to health risk lifestyles such as alcohol and other drugs, unsafe practices in traffic, and risky sexual practices, among others. High rate of hazardous or harmful use are found and various factors were identified that can be used to guide interventions to reduce problem drinking among university students.²⁶ Thus, it is extremely important to build supportive environments within the high school space for discussion of issues with their health, with emphasis on sexuality as away to manipulate the student, good attitudes ever have sexual intercourse among students are the tools for healthy sexuality issues can reducing their exposure to

sexually transmitted infections, unwanted pregnancies and other risk factors.²⁷ The modernized and innovative training program in the accurate attitude, first sexual intercourse and sexually transmitted diseases, values, and self-esteem to prevent sexual risk behaviors with appropriate gender norms and the recent era among students need to be considered. Therefore, early sexual initiation had a negative impact on these variables. Results indicate the need of intervention and continuous education on reproductive health among school students in Ubon Ratchathani province, Thailand.

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Ethical Clearance: In this research, research ethics were considered by the Human Research Ethics Committee, Ubon Ratchathani Provincial Public Health Office, No. SSJ.UB 2563-098 given on 20 October 2020. Participants could refuse and/or leave this research at any time. The data in the evaluation forms was kept confidentially without specifying the participants' names in the document.

Conflict of Interests: The authors have no conflicts of interest with the material presented in this study and research tool was self-assessment questionnaire consisting of questions related to sexual activities among students in school Ubon Ratchathani province. Participants received both written and verbal information before they agreed to participate in the study.

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