FACTORS ASSOCIATED WITH PREMATURE SEXUAL ACTIVITY AMONG EARLY ADOLESCENTS IN UBON RATCHATHANI PROVINCE, THAILAND

Chuthamat Baokhumkong[1], [*], Songkramchai Leetongdee[1], Juthasiri Rohitrattana[2], Siriluk Jaichuang[3]

[1] Faculty of Public Health, Maha Sarakarm University, Maha Sarakham Province, 44150, Thailand

[2] College of Public Health Sciences, Chulalongkorn University, Bangkok, 10330, Thailand

[3] Nakhon Phanom Provincial Health Office, Nakhon Phanom Province, 48000, Thailand

ABSTRACT:

Background: Premature sexual activity among early adolescents can be linked to sexually transmitted disease and premature pregnancy. This study aimed to determine the factors associated with premature sexual activity in early adolescents in Muang district, Ubon Ratchathani province, Thailand.

Methods: A cross-sectional analytical study (n=386) was conducted from August to December 2016 by using a self-reported questionnaire. Univariate (chi-square test) and multivariate analyses (logistic regression) were performed to identify the factors associated with premature sexual activity in early adolescents in Muang district, Ubon Ratchathani province, Thailand.

Results: Findings revealed that the participants were females 51.3% and males 48.7% with an average age of 14.1±2.1. Around 52.3% had experience of sexual intercourse, with their first experience of sexual intercourse at the average age of 14 years old. Most respondents 70.8 % did not use a condom, 43.5% of sexual activity was due to substance abuse, and 36.4% consumed alcohol at the time of their first sexual experience. Premature sexual activity among adolescents were significantly associated with living without one or both parents (OR_{adj} = 12.43, 95%CI= 8.84-16.39), substance abuse (OR_{adj} = 4.47, 95%CI= 3.32-6.71), low knowledge level (OR_{adj} = 4.55, 95%CI= 2.67-6.88), and low attitude level (premature sexual activity among adolescents is appropriate) (OR_{adj} = 5.89, 95%CI= 3.78-8.82).

Conclusion: The study highlights the situation of premature sexual activity among early adolescences in Thailand. It is recommended that sex education should be improved within the curriculum and active campaigning in schools should be promoted.

Keywords: Premature sexual activity; Early adolescence; Thailand

INTRODUCTION

The sexual intercourse in adolescents is becoming a major social and health problem in Thailand. The data from the Ministry of Public Health reveals a survey from public hospitals during the years 2002-2012 that sexual intercourse in teenager raised from 10.0% to 60.6% [1]. In 2014, the situation of sexual intercourse in adolescents in Thailand was found 68.3% among all regions, 68.5% central region [2], and 63.2% northeast region [3]. These situations of Thai adolescents contributed to the significant issues in public health including unsafe sexual behavior, sexually transmitted diseases, unwanted pregnancy, and abortion [4]. In Thailand, adolescents aged 15-24 years are currently experiencing with the sexual transmitted diseases accounting for 70.0% followed by unwanted pregnancies [5]. These current trends were found considerably among Thai early adolescence.

[*] *Correspondence to: Chuthamat Baokhumkong*
E-mail: chuthamat.b@ubru.ac.th

Early adolescence is a critical phase of development that is defined broadly between the ages of 10 and 14. In this stage, the development of the sexual organs characteristics is in a period of accelerated growth and changes. These changes also affect their emotional level that is taken place as puberty strikes in both positive and negative. Hence, these could encounter to the high risk of premature sexual intercourse among early adolescence that need to be considered as the issue and adopted for the involvement. In Thailand the rate of HIV infection is rising every year and increasing in younger patients because they have the first sexual intercourse activity at the early stage of adolescence [6]. Although condom usage is increasing in young men, the rate of condom usage is still very low [7].

Ubon Ratchathani province is one of the province in the Northeast region that found the burden of premature sexual intercourse among early adolescents with the third ranking of the region and the seventh rank of Thailand. The rate of sexual intercourse was found 22.6% in early adolescents. The average age of first sexual intercourse in early adolescence is 13.6 years old which is higher than the average age of first sexual intercourse in the country. The first sexual intercourse were found in the early adolescence (60.5%) without condom use (6.2%) [8]. Most common problem of premature sexual intercourse is sexual transmitted diseases (51.7%): gonorrhea (29.5%), syphilis (21.5%), chlamydia (20.9%), HIV/AIDs (10.8%), Chancroid (10.2%) and *Lymphogranuloma Venereum* (6.8%). The second common problem is the social aspects (22.7%) including the issue of a stigma from society and psychosocial issues among teens and parents, etc. The third problem is teenage pregnancy (19.0%). The Family Planning Association of Thailand in Ubon Ratchathani province revealed that the abortion rate at the Planned Parenthood Association of Thailand was increasing from year 2010 to 2015. There were 563 adolescences (5.9% of pregnant adolescences) committed abortions involved 85.8% students and 24.6% early adolescences [7].

The number of adolescent patients with sexual transmitted diseases is still rising. This vulnerable group needs special attention from their family members and need to be involved in the effective program [8]. Hitherto, there is scarcity on study on premature sexual activities among early adolescences in Ubon Ratchathani province. This research aimed to determine the factors associated with premature sexual activity among early adolescences, which provide the useful information for planning of an on-going curriculum in school and the program for school, and parents.

METHODOLOGY

A cross-sectional analytic research was conducted during August to December 2016. This research aimed to determine the prevalence and factors associated with the premature sexual activity among early adolescence at the Muang district, Ubon Ratchathani province Thailand. Adolescences aged between 12-15 years old resided in the study area and studied in grade 7-9 were selected by multistage random sampling. After sample size calculation by using the estimated population mean equation [9], total 386 students (included 5% missing cases) with males and females were recruited from 10 secondary schools in the Secondary Education Office Service Area 29, Ubon Ratchathani province.

Research tool was self-assessment questionnaire consist of questions related to sexual activities among early adolescences. This study was approved by the institution Review Board for Human Research Ethics, Maha Sarakarm University (Certification number PH 059/ 2559).

Data analysis was performed by Epi info version 3.52. The population characteristics were described by frequency and percentage. Demographic data, knowledge level, attitude level and the reliability was .746 tested for the factors that determine the quality, and risk factors were used to determine the factors associated with premature sexual activities by univariate analysis and multivariate analysis. Fifthteen variables with p-value < 0.25 from univariate analysis including sex, age, education, relationship, income, living with, drug abuse, alcohol consumption, abnormality of sexual organ or anus, history of blood testing for sexual transmitted diseases, knowledge about how to prevent the premature sexual activities, knowledge level, attitude level, risk for sexual transmitted diseases, and risk for pregnancy in adolescence were considered to multiple logistic regression with backward elimination method at the 95% confident interval (95%CI).

RESULTS

Total 386 participants were 188 (48.7%) males and 198 (51.3%) females, average age 14.1 ± 2.1 years old. Homosexual activities were found 45

Table 1 Characteristic of participants and premature sexual activities

Demographic characteristics	Premature sexual activity				
	Ever (n=202)		Never (n=184)		Total (n=386)
	n	%	n	%	n
Sex					
Male	118	62.8	70	37.2	188
Female	100	50.5	98	49.5	198
Age (years)					
12	35	39.3	54	60.7	89
13	42	41.2	60	58.8	102
14	58	61.0	37	39.0	95
15	67	67.0	33	33.0	100
Mean = 14.1, SD = 2.1					
In relationship (Having girl/boyfriends)					
Yes	145	69.0	65	31.0	210
No	57	32.4	119	67.6	176
Living with					
Mother and father	26	30.2	60	69.8	86
Single parent	35	32.4	73	67.6	108
Friend	40	69.0	18	31.0	58
Lover	45	100.0	0	0.0	45
Relative	33	58.9	23	41.1	56
Alone	20	70.1	7	29.9	27
Other	3	50.0	3	50.0	6
GPA					
≤2.50	39	56.5	30	43.5	69
2.51-3.00	70	51.8	65	48.2	135
3.01-3.50	58	47.9	63	52.1	121
≥3.51	30	49.2	31	50.8	61
Income (Baht/month)					
≤5,000	75	42.4	102	57.6	177
>5,000	127	60.8	82	39.2	209
Median; Min-Max 7,500; 2,500-30,000					

(23.9%) males and 37 (18.7%) females. There were 118 (62.8%) males and 100 (50.5%) females who had sexual activities. The premature sexual activities were commonly reported in participants aged 15 years, GPA ≤ 2.50, income 7,500 THB/month, divorced parents, and living with lovers as show in Table 1.

The average scores of knowledge related to premature sexual activity were in low levels (< 80% corrected answers). Participants were mostly incorrect responded to questions about anti-HIV/AIDs drugs or emergency contraception pills can cure HIV/AIDs patients. Most of participants (61.5%) who had premature sexual activity had very low attitude levels.

The results from self-assessment about risk of premature sexual activity revealed that participants who ever have sexual intercourse (56.2%) were likely to have high risk of premature sexual activity than whom never have sexual intercourse (6.9%). Participants who ever have sexual intercourse were likely to have risk of sexual transmitted disease (91.3%) and unwanted pregnancy (94.1%) than whom never have sexual intercourse.

The results from univariate analysis (Chi-square test) found the associations between participant characteristics and premature sexual activities. The odds of having premature sexual activities among early adolescences were 1.65 times (OR =1.65, 95% CI = 1.10-2.48) significantly greater for males when compared to females, 4.65 times (OR =4.65, 95% CI = 3.03-7.16) significantly greater for adolescences who were in relationships when compared to adolescences who were not in

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Table 2 The univariate analysis factors associated with premature sexual activities among early adolescences in Ubon Ratchathani province, Thailand

Factors	Premature sexual activities		OR	95%CI	*p*-value
	Ever (n=202)	Never (n=184)			
Sex					
Male	118	70	1.65	1.10-2.48	0.015*
Female	100	98	1.00		
Relationships					
Relationships	145	65	4.65	3.03-7.16	<0.001*
Not in relationships	57	119	1.00		
Parent status					
living with single parent	172	128	2.51	1.52-4.13	<0.001*
living with parent	30	56	1.00		
Living					
living with parents (not mother or father)	141	51	6.03	3.88-9.37	<0.001*
living with both mother and father	61	133	1.00		
Experience substance					
Yes	75	23	4.13	2.45-6.97	<0.001*
No	127	161	1.00		
E Experience alcohol					
Yes	177	118	3.96	2.36-6.63	<0.001*
No	25	66	1.00		
Having abnormality of sexual organ or anus in last 12 months					
Yes	178	15	83.56	42.39-164.71	<0.001*
No	24	169	1.00		
Testing blood for sexual transmitted diseases					
Yes	54	14	4.43	2.36-8.30	<0.001*
No	148	170	1.00		
Level of the knowledge about premature sexual activities					
Low	112	79	1.65	1.10-2.47	0.014*
High	90	105	1.00		

*p-value <0.05

relationships, 2.51 times (OR =2.51, 95%CI = 1.52-4.13) significantly greater for adolescences who living with single parent (mother or father) and 6.03 times (OR =6.03, 95%CI = 3.88-9.37) significantly greater for adolescences living with parents (not mother or father) compared to who were living with both mother and father, 4.13 times (OR =4.13, 95%CI = 2.45-6.97) significantly greater for adolescences experience substance abuse and alcohol consumption 3.96 times (OR =3.96, 95%CI = 2.36-6.63) compared to those who had no experience. Adolescences aged 12-13 years (grade 7-8) were more likely to have premature sexual activity than those aged more than 14 years (≥ grade 9) (OR =0.38, 95%CI = 0.25-0.59). The odd of having abnormality of sexual organ or anus in last 12 months in adolescences who had sexual activities

was 83.56 times (OR = 83.56, 95%CI = 42.39-164.71) significantly greater than those reporting no sexual activities. The odd of testing blood for sexual transmitted diseases in adolescences who had sexual activities was 4.43 times (OR = 4.43, 95%CI = 2.36-8.30) significantly greater than those reporting no sexual activities. Participants who had low knowledge about premature sexual activities were 1.65 times (OR = 1.65, 95%CI = 1.10-2.47) having sexual activities compare to those had high knowledge level in Table 2.

The results from multivariate analysis (multiple logistic regressions adjusted for age and living with) found the associations between participant characteristics and premature sexual activities. The odds of having sexual activities among early adolescences were 1.95 times (OR$_{adj}$ =1.95, 95%CI

Table 3 The multivariate analysis factors associated with premature sexual activities among early adolescences in Ubon Ratchathani province, Thailand

Factors	Ever have sexual activity (n=202)	OR[a]	OR[b]adj	95%CI	p-value
Sex					
Male	118	1.65	1.95	1.60-2.98	0.012
Female	100		1.00		
Age (years)					
12-13	77	0.38	0.48	0.35-0.68	<0.001
≥ 14	125		1.00		
Education level					
Grade 7-8	117	0.43	0.66	0.37-0.86	<0.001
Grade 9	85		1.00		
In relationship					
Yes	145	4.65	5.66	3.24-8.12	<0.001
No	57		1.00		
Income (Baht)					
≤ 5,000	75	0.47	1.57	0.42-2.81	0.321
> 5,001	127		1.00		
Living with					
Other (not mother and/or father)	141	6.03	12.43	8.84-16.39	<0.001
Mother and/or father	61		1.00		
Substance abuse					
Ever	75	4.13	4.47	2.32-6.71	0.001
Never	127		1.00		
Alcohol consumption					
Ever	177	3.96	5.88	3.67-8.43	0.001
Never	25				
Abnormality of sexual organ or anus in last 12 months					
Yes	178	83.56	98.98	53.84-156.66	<0.001
No	24				
Blood test for sexual transmitted diseases					
Ever	54	4.43	9.56	4.64-12.35	<0.001
Never	148				
Have knowledge about how to prevent the premature sexual activities					
No	102	0.87	5.87	2.54-7.88	0.001
Yes	100				
Knowledge level					
Low level (<80% of corrected answer)	112	1.65	4.55	2.67-6.88	0.002
High level (≥80% of corrected answer)	90				
Attitude level					
Low - medium	87	1.20	5.89	3.78-8.82	0.012
Good – very good	115				
Risk for sexual transmitted diseases					
Risky	168	5.63	12.56	6.12-19.68	0.001
Not risky	34				
Risk for cause of pregnancy					
Risky	185	14.46	28.52	15.88-35.35	0.001
Not risky	17				

p-value < 0.05, Goodness of fit = 0.739, Adjusted for sex and living with

[a] Univariate analysis, Chi-Square test

[b] Multivariate analysis, Multiple logistic regression

= 1.60-2.98) significantly greater for males compared to females, 0.48 times (OR$_{adj}$= 0.48, 95%CI= 0.35-0.86) significantly greater for aged 12-13 years (grade 7-8) compared to aged 14 years (≥ grade 9), 5.66 times (OR$_{adj}$ = 5.66, 95%CI= 3.24-8.12) significantly greater for adolescences who were in relationships when compared to adolescences who were not in relationships, 12.43 times (OR$_{adj}$ = 12.43, 95%CI= 8.84-16.39) significantly greater for adolescences living with other (not mother and/or father) compared to who were living with both mother and father, 4.47 times (OR$_{adj}$ = 4.47, 95%CI= 3.32-6.71) significantly greater for adolescences experience substance abuse compared to those had no experience, 5.88 times (OR$_{adj}$ = 5.88, 95%CI= 3.67-8.43) significantly greater for adolescences experience alcohol consumption compared to those had no experience.

The odd of having abnormality of sexual organ or anus in last 12 months in adolescences living with parents (not mother or father) was 98.98 times (OR$_{adj}$ = 98.98, 95%CI= 53.84-156.66) significantly greater compared to who were living with both mother and father. The odd of testing blood for sexual transmitted diseases in adolescences who had sexual activities was 9.56 times (OR$_{adj}$ = 9.56, 95%CI= 4.64-12.35) significantly greater than those reporting no sexual activities. The odds of having sexual activities among early adolescences were 4.55 times (OR$_{adj}$ = 4.55, 95%CI= 2.67-6.88) significantly greater for participants who had low knowledge level compared to who had high knowledge level, 5.89 times (OR$_{adj}$ = 5.89, 95%CI= 3.78-8.82) significantly greater for participants who had low attitude level compared to who had high attitude level, 12.56 times (OR$_{adj}$ = 12.56, 95%CI= 6.12-19.68) significantly greater for participants who had risk for sexual transmitted disease compared to who had no risk, 5.89 times (OR$_{adj}$ = 5.89, 95%CI= 3.78-8.82) significantly greater for participants who had risk for unwanted pregnancy compared to those had no risk. There was no association between income and premature sexual activities as presented in Table 3.

DISCUSSION

Male adolescences were more likely to have sexual activities than female adolescences in secondary schools in Ubon Ratchathani province because male adolescences experience substance abuse more than female adolescences and male adolescences had low knowledge level. This finding

agreed with the study of the ASEAN institute for health development, Mahidol University that male students were more likely to have sexual activities than female students in vocational schools in Bangkok [10]. Female adolescences in Ubon Ratchathani province were tended to have more sexual activities due to changing of social norm about woman and man equity. The average age of first sexual activity was 11-13 years old. This study presented earlier age than the previous study by the Ministry of Public Health that found adolescences aged 15-16 years for the first sexual activity [11]. This finding was supported by Baokhumkong, et al. [12] that reported the causes of the first sexual activity in early adolescence were due to lack of knowledge and miss understand about sex education including only one time sexual intercourse cannot pregnancy. Moreover, the social norm was changed to be more accepted about living with lovers among adolescences which have been reported 77.7% of adolescences with relationships. This incorrect attitude may lead to risk of sexual activity. Hence, the knowledge and understanding about sex education should be provided to correct attitude in adolescences. Concerning to living with, adolescences living with other people (not father or mother) tended to have more sexual activity than those living with their father and mother. This finding agreed with other studies that students who living in dormitory were likely to have more sexual activities than those living with parents [13]. Students who were not living with parents had positive attitude toward sexual activity before marriage [14]. Substance abuse and alcohol consumption also associated with premature sexual activity. Adolescences who have ever consumed alcohol were more likely to have sexual activity compared to those never consumed alcohol. Female students in vocational schools in Bangkok who used substance abuse were more likely to have sexual activity than those not used substance abuse [15]. Alcohol consumption and substance abuse were probably affected relaxing emotion, easily familiar each other, and unconscious behaviors that induced unsafe sex activity. In addition, the unsafe sex activities among males who have ever used substance abuse in Spain were associated with HIV/AIDs infection [16].

The levels of knowledge and attitude were related to premature sexual activity in adolescences which was similar to the study of sexual activity among students in vocational school in Bangkok

[15]. This relationship could be explained by PRECEDE MODEL that people who have high knowledge and attitude levels toward safe sex behaviors were tended to have more prevention and lower risk of HIV/AIDs and sexual transmitted diseases [17].

This study used self-reported questionnaire to collect the information about premature sexual activity which might contain bias data. The in-depth interview and qualitative study should be used to increase reliability of result. This study had been done in student in secondary school in Ubon Ratchathani province. The result might not generalize to other areas due to socio-demographic differences.

The recommendations from this research were mentioned as follows. The government should develop the effective curriculum and active campaign in order to give knowledge and prevent risk of premature sexual activity. Especially in female adolescence, the rate of premature sexual activity in female students is rising. Therefore, female adolescence should be provided more knowledge and correct attitude to prevent the problem from premature sexual activity.

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