Factors Related to Intention to not have Premature Sexual Relations among Early Adolescents in Bangkok Metropolis

Ramonpawee Boonyai^{1*}, Aphichat Chamratrithirong², Umaporn Pattaravanich³ and Orratai Rhucharoenponpanich⁴

¹Graduate student in Master of Arts Program in Population and Social Research, Institute for Population and Social Research, Mahidol University, Thailand, Salaya, Phutthamonthon, Nakhon Pathom, Thailand 73170 ² Institute for Population and Social Research, Mahidol University, Thailand ³ Institute for Population and Social Research, Mahidol University, Thailand ⁴Independent Scholar *Corresponding author, E-mail: boonya_11@hotmail.com

Abstract

This study investigated the: 1) the relationship of personal factors and family factors in relations to the intention, not to have premature sexual relations among early adolescents and 2) the factors that influence adolescents' intention not to have premature sexual relations. The personal factors include the gender of the early adolescents, perception about the consequences of HIV infections, perception about the consequences of teenage pregnancies, self-efficacy on sexual refusal and negotiation, attitudes about procrastination to have sexual relations at an appropriate age, pre-sexual behaviors, having a lover, the opportunity to have sexual relations, and peer norms on having sex. The family factors include communication with parents about sex, family relationships, authoritative parenting styles, authoritarian parenting styles, permissive parenting styles, parental monitoring and supervision, and control of the internet contents consumption. This study employs secondary data from the "Thai Family Matters Project". The project studied early adolescents aged 13 - 14 years and their parents by randomly selecting 420 target households in Bangkok. Statistics for data analysis were frequency, percentage, mean, SD, chi-square test, and stepwise multiple regression. According to the Stepwise Multiple Regression Analysis, there are four variables that can predict the intention to not have premature sexual relations among early adolescents, which accounted for 86.0% of the variability (p < .05), including the opportunity to have sexual relations, parental monitoring and supervision, attitudes about procrastination to have sexual relations at an appropriate age, and having a lover. These findings show that the role of family could help control, direct, and follow teen behaviors. In conclusion, the role of family in supervision and monitoring adolescents aged between 13 and 14 should be promoted. The family has a role in creating adolescents' awareness to behave appropriately in accordance with their age and be able to predict the outcome, i.e. pros and cons of their own sexual behaviors.

Keywords: premature sexual, early adolescents, parental monitoring and supervision

บทคัดย่อ

การศึกษามีวัตถุประสงค์ เพื่อศึกษาความสัมพันธ์ของปีจขัชส่วนบุคคล และปีจจัยครอบครัวกับความมั่นใจที่จะไม่มีเพศสัมพันธ์ก่อนวัยอันควร ของวัยรุ่น และเพื่อศึกษาปัจจัยที่มีอิทธิพลในการทำนายความมั่นใจที่จะไม่มีเพศสัมพันธ์ก่อนวัยอันควรของวัยรุ่น โดยปัจจัยส่วนบุคคล ได้แก่ เพศวัยรุ่น การรับรู้น และเพื่อศึกษาปัจจัยที่มีอิทธิพลในการทำนายความมั่นใจที่จะไม่มีเพศสัมพันธ์ก่อนวัยอันควรของวัยรุ่น โดยปัจจัยส่วนบุคคล ได้แก่ เพศวัยรุ่น การรอที่จะมีเพศสัมพันธ์ในวัยเหมาะสม พฤติกรรมที่นำไปสู่การมีเพศสัมพันธ์ การมีคนรัก โอกาสในการมีเพศสัมพันธ์ และบรรทัดฐานของกลุ่มเพื่อน เกี่ยวกับการมีเพศสัมพันธ์ ปัจจัยครอบครัว ได้แก่ การสื่อสารเรื่องเพศกับพ่อแม่ สัมพันธภาพในครอบครัว การอบรมเลี้ยงดูแบบเอาใจใส่ แบบเข้มงวด และ แบบตามใจ การติดตามควบคุมกำกับของพ่อแม่ และการกาบคุมการรับสื่ออินเตอร์เน็ต ในการศึกษานี้ใช้ข้อมูลทุดิยภูมิจากโครงการ Thai Family Matters ศึกษาในวัยรุ่นอายุ 13-14 ปี และพ่อแม่ สุ่มเลือกครัวเรือนในกรุงเทพมหานคร 420 ครัวเรือน สถิติที่ใช้ในการวิเดราะห์ข้อมูลได้แก่ ความถี่ ค่าร้อยละ กำเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน การทดสอบไคสแควส์ และการวิเคราะห์ถดถอยพหุคูณแบบขั้นตอน ผลการวิจัยพบว่าปัจจัยที่สามารถคาดทำนายความ มั่นใจที่จะไม่มีเพศสัมพันธ์ก่อนวัยอันกรงองวัยรุ่น ซึ่งสามารถริวมกันทำนายใดร้อยละ 86.0 ได้แก่ โอกาสในการวิเพศสัมพันธ์ การติดตามควบคุมกำกับ ของพ่อแม่ ทัศนคติเกี่ยวกับการรอลอยที่จะมีเพศสัมพันธ์ในวัยที่เหมาะสม และการมิคนรัก/แฟน จะเห็นได้ว่าบทบาทของครอบครัวมีความสำคัญต่อกา กวบคุมกำกับติดตามพฤติกรรมของวัยรุ่น ซึ่งควรส่งเสริมบทบาทของกรอบครัวในการติดตามควบคุมกำกับวัยรุ่นในวัย 13 -14 ปี และให้กรอบครัวมี บทบาทในการสร้างกันโยงหรือความตระหนักในวัยรุ่นถึงการประพฤติตนที่เหมาะสมตามวัย ให้วัยรุ่นตระหนักและสามารถอกจกรองกรณ์ถึงผลดีและผลเสีย จากพฤติกรรมทางเพศสัมพันธ์ของตนเองได้ คำสำคัญ: การมีเพศสัมพันธ์ก่อนวัยอันควร วัยรุ่นตอนต้น การติดตามควบคุมกำกับของพ่อแม่

1. Introduction

The premature sexual relation in adolescents is the major problem for the health system in global dimension since the adolescent population will grow to be a major force for national development in the future. Premature sexual relations in adolescents cause various effects, for instance, numerous unwanted pregnancy in adolescents, abortions, mother's and baby's health problems, adolescent mothers giving up school, adolescents' inability to raise up good family, and sexually transmitted infections.

Bureau of Reproductive Health (2013) reports that the average age of adolescents engaging in sexual relation for the first time has continuously decreased over the recent years. By the year 2012, the age range is 10 - 14 years of age, which is lower than which of the year 1996 when the age range is 18 - 19 years of age. The tendency of adolescents' sexual relations has increased from past to present, as reflected by the increased number of adolescent mothers aged between 10 and 17 years old and the number of patients with sexually transmitted infections. Furthermore, adolescents aged between 15 and 24 years old represent 41 people per 100,000 people in 2005; whereas, this group of population makes up 93 people per 100,000 people in 2012. Also, studies showed that the places in which adolescents have sexual relation for the first time are either friend's home or own home.

According to the resultant effects by premature sexual relations in adolescents regarding the issue of pregnancy reported by the United Nations (2014), global rate of live births contributed by adolescent mothers aged between 15 and 19, from 2006 to 2010, made 49 people per 1,000 women in the same age group. In each region of the world, the rates of live births in adolescents aged between 15 and 19 are reported differently. In African and West African regions, adolescent mothers aged between 15 and 19 contributed to 180 live births among 1,000 women in the same age group. The East Asia and Southeast Asia regions, except some countries such as Thailand and Vietnam, the rates of live births by adolescent mothers aged between 15 and 19 is averagely 41 people and 32 people per 1000 women in the same age group respectively. In Western Europe, the rate of live births to adolescent mothers aged between 15 and 19 is averagely 9 people per 1,000 women in the same age group.

For Thailand, in comparison with neighboring countries, Thailand has the higher rate of birth by adolescent mothers aged between 15 and 19 than Japan, Korea, China, and Singapore. Nevertheless, Thailand's rate of birth by adolescent mothers is similar to some neighboring countries such as Indonesia, the Philippines, Cambodia, Timor, and several countries in Latin American such as Chile, Costa Rica, or Cuba. Also, the rate of birth by Thai adolescent mothers is found to be higher than which of the countries in the Asia and Pacific region, with an average of 35 per 1000 women (United Nations Population Fund of Thailand, 2013). Furthermore, a report of the reproductive health in adolescents and young adults by the Reproductive Health Agency represents the birth rate in 2003 by adolescent mothers aged between 10 and 17 at 4.9%, which increases to 8.0% in 2013 (Bureau of Reproductive Health, 2013).

Adolescents experience both physical and psychological changes and their natural needs and curiosity lead them to premature sexual relations. Some studies about the causes of adolescents' premature sexual relations show that being alone with a lover, touching between man and woman, curiosity, dating the opposite sex, and consuming erotic or sexual contents e.g. VCDs, erotic books, or sexual contents on the internet, contribute to adolescents' behaviors correlated with sexual risk (Jantaraviruj O., 2001; Thitiporn, et al., 2007).

Supervision and monitoring factors helps control behaviors and communication between parents and children (Devore & Ginsburg, 2005). The recognition of the right age to have sexual relations is found to have a relationship with regulatory controls by parents or guardian (Cotton, Mills, Succop, Biro & Rosenthal, 2004). According to some studies, adolescents who are poor but are under intense supervision and monitoring by parents are found to adapt to the external high pressure. This, therefore, suggests that the influence of the externality will not result in risky behaviors (Buckner, Mezzacappa, & Beardslee, 2003). In addition, the studies find that adolescents who live in urbanized communities under parents' supervision and monitoring from their early to late adolescent age tend to join up with a group of friends with less risky behaviors compared with the group with less parents' supervision and monitoring (Lloyd & Anthony, 2003).

Self-efficacy (Bandura, 1999) is an intellectual process that assesses an individual's ability to respond to crises. Factors influencing the decision to behave are based on self-efficacy and the expectation of results of that behavior. If a person perceives any behaviors can be successful and resulting in a good yield, that person will always behave the way they perceive. A study on the self-efficacy development for life skills in defense of pre-marriage sexual relations of female college students from Chiang Mai Technical College shows that the group, which is trained in self-efficacy for life skills in defense of pre-marriage sexual relations, find their self-efficacy in preventing pre-marriage sexual relations higher (Aramkotchakon C., 2001). The approaches to prevent and resolve issues of sexually risky behaviors in adolescents are the development of life skills in risk assessment to have sexual relations, decision-making, self-esteem, ability to control and resolve sexual problems, and ability to properly determine the outcome of own behaviors (Lloyd & Anthony, 2003). Therefore, self-efficacy is the important factor that helps adolescents reduce their sexually risky behaviors.

According to the above studies, all personal factors, perceptions and attitudes, opportunities that lead to sexual relation, and family influenced sexual behaviors of adolescents. Thus, the researcher is interested in the study of the relationships between various factors, e.g. personal factors, perceptions and attitudes, instance factors, family communication, parents' factors, and parents' supervision and monitoring that affect the intention to avoid having premature sexual relations in adolescents. It is expected that the benefits of this research are in the forms of understanding the sexual situations and sexual behaviors of adolescents in Thailand. Also, the results of study are expected to be considered as the instruments to resolve the issues and help create strategies to develop activities that help improve knowledge base and understanding about sex in adolescents.

2. Objectives

1. To study the relationship of personal factors and family factors in relations to the intention to not have premature sexual relations among early adolescents.

2. To investigate personal factors and family factors that influence adolescents' intention to not have premature sexual relations.

3. Materials and Methods

To study the factors affecting the intention not to have premature sexual relations in adolescents, this research uses the secondary data from the "Thai Family Matters Project," (Chamratrithirong et. al. 2009) which is the result of a collaboration between the Institute for Population and Social Research of Mahidol University and the Pacific Institute for Research and Evaluation financially supported by The U.S. National Institute of Health. This project conducted the collected data from April to June, 2007 using two sets of surveys. The first set was Adolescent Survey, whereas, the second set was Parent Survey. Data were collected by means of interviewing one of the parents, while their children aged 13 to 14 completed questionnaires on their own on computer. In determining research population and sample were selected by multi - stage random sampling, this randomized selection of households is summarized as follows: The population used in this study was the adolescents and parents who live in a household in Bangkok area which is defined as the study area with totally 30,471 households. Sample used in this study was the adolescents aged 13 to 14 from 420 randomly selected households (420 adolescents and 420 mothers or fathers).

Research instrument consisted as follows: The questionnaire on personal factors of adolescent consisted of gender consisting of check lists with two choices: male or female. The questionnaire on perception and attitude factors of adolescent, family communication factors, parenting styles factors, and parental monitoring and supervision, there were 4-level Likert rating scale answers. The result was interpreted by full score (3 point) representing high level and classified into 2 levels for describing the characteristics of variables. The questionnaire on chance factors of adolescent about pre-sexual behaviors, having a lover, the opportunity to have sexual relations, the questionnaire on parents' monitoring and supervision factors on control of the internet contents consumption consisted of check lists with two choices: have or have not and yes or no.

The obtained data were processed with SPSS for Windows to analyze the general characteristics of adolescents and describe the factors correlated with sexual behaviors of adolescents. For descriptive statistics, frequency, mean, and percentage were used for describing the characteristics of variables appearing in the study. For inferential statistics, Pearson's Product Moment Correlation is used to study the relationship between each independent variable as well as each dependent variable, and the Stepwise Multiple Regression analysis is used to

study the predictable factors influencing the intention to not have premature sexual relations in adolescents. Variables were managed into analysis groups to form dummy variables prior to analysis. After that, the variables were tested using correlation matrix to prevent potential problems of multicollinearity. If correlation coefficients were less than 0.7, i.e. there are no independent factors with high correlation within themselves, thus, all those independent factors can be used in the regression of multiple.

4. Results and Discussion

4.1 Demographic characteristics of the sample and intention to not have premature sexual relations

The samples of female and male adolescents were relatively equal in number, i.e. 50.48% female and 49.5% male. Most of these adolescents were 13 year-olds were accounted for 55.1%, while the adolescents who were 14 year-olds were account for 44.9%. Contributing parents are mostly mothers, which make 83.1%, while the fathers make 16.9%. The average age of parents was 41 years old. For the intention to not have premature sexual relations, most of the adolescents or 84.3% of them are confident to not have premature sexual relations, whereas 15.7% of them are not confident whether they would not have premature sexual relations.

4.2 Average of personal factors (Table 1)

For perception on the consequences of HIV infection, most adolescents recognized the impact of HIV infection, i.e. they strongly agreed that HIV infection is considered a very serious disease (90.4%); life is much more difficult with HIV infection (87.0%); life is much shorter with HIV infection (83.1%); much stress is caused by HIV infection (81.8%); and HIV infection leads to severe pain (82.0%). Four out of five of the sample groups have a perception on the consequences of HIV infection at a high level (81.3%).

For perception on the consequences of teenage pregnancy, it showed that most adolescents strongly agreed that teenage pregnancy leads to many problems for adolescent mothers (90.7%); family is hardly raised by adolescent couple (78.9%); if they have a baby as a teenager, their life would be very stressful (81.9%); work and university opportunities for adolescents who have once been pregnant are reduced (83.8%). Four out of five samples have perception on the consequences of teenage pregnancy at a high level (81.4%).

For self-efficacy on sexual refusal and negotiation, 50% of the sample adolescents have self-efficacy on sexual refusal and negotiation. However, there are still some adolescents who think that sexual relations cannot be avoided. Most of the adolescents or 79.5% of them can surely deny the people who push them to have sexual relations with, while 48.6% of the adolescents decide to have sexual relations that are not sexual intercourse, 62.7% of them can surely tell someone they do not want to go somewhere because of what might happen sexually, and 66.3% can surely tell if they are not ready to have sexual relations. Most of the adolescents have self-efficacy on sexual refusal and negotiation at a high level (54.7%). Attitudes on procrastination to have sexual relations at an appropriate age showed that most adolescents agreed that people in the same age should wait until marriage to have sexual relations (53.2%); and girls that have sexual relations are discredited (72.6%). On the other hand, most adolescents disagreed on some issues, such as people in the same age should experience sexual situations as much as possible (64.0%); it is right that people in the same age have sexual relations with someone they love (63.2%); boys should have sexual experiences to show off their adulthood (66.0%); sometimes girls want to have sexual relations with the boy they love to prove her love (64.6%). Only one in five of the samples have the attitude at an appropriate level (19.1%).

For chance factors, almost two in three adolescents of the samples do not have pre-sexual behaviors (67.3%), such as, hold hand with opposite sex, hug opposite sex, kiss opposite sex, touch a girl's breasts, touched someone else's private parts below the waist. Four in five did not have a lover (83.0%); there was no opportunity to have sexual relations (96.0%). One in five of the samples have peer norms about having sex at an appropriate level (15.1%).

| Factor | Percentage | Ν | Mean | S.D. | Min-Max |
|---|------------|-----|------|------|---------|
| Perception and attitude factors | | | | | |
| Perception on the consequences of HIV infection | | 347 | 2.8 | 0.4 | 0-3 |
| Low level | 18.7 | | | | |
| High level | 81.3 | | | | |
| Perception on the consequences of teenage pregnancy | | 322 | 2.5 | 0.4 | 0.6-3 |
| Low level | 18.6 | | | | |
| High level | 81.4 | | | | |
| Self-efficacy on sexual refusal and negotiation | | 225 | 2.5 | 0.9 | 0-3 |
| Low level | 45.3 | | | | |
| High level | 54.7 | | | | |
| Attitude on waiting to have sexual relations | | 304 | 2.6 | 0.6 | 0.9-3 |
| Inappropriate level | 80.9 | | | | |
| Appropriate level | 19.1 | | | | |
| Chance Factors | | | | | |
| Pre-sexual behaviors | | 339 | - | - | - |
| Have | 32.7 | | | | |
| Not have | 67.3 | | | | |
| A lover | | 358 | - | - | - |
| Have | 17.0 | | | | |
| Not have | 83.0 | | | | |
| Opportunity to have sexual relations | | 348 | - | - | - |
| Have | 4.0 | | | | |
| Not have | 96.0 | | | | |
| Peer norms about having sex | | 304 | 2.0 | 0.4 | 0.6-3 |
| Inappropriate level | 84.9 | | | | |
| A ppropriate level | 15.1 | | | | |

| | Table 1 | Percentage and | l mean of adolescent | classified by | personal factors |
|--|---------|----------------|----------------------|---------------|------------------|
|--|---------|----------------|----------------------|---------------|------------------|

4.3 Average of Family Factors (Table 2)

For communication with parents about sex, most of the samples had communicated with parents about sex in a matter of going out with a person of opposite sex and body changes. However, most adolescents nearly never have communicated with parents about sexual relations, inappropriateness of premature sexual relations, condoms and contraception, HIV and AIDS, sexually transmitted diseases, pregnancy in adolescents, virginity maintenance for girls, and the importance of not making a girl pregnant for boys. Less than one in five had communicated with parents about sex at an appropriate level (10.3%). The family relationship (discussion in the family) showed that the majority of the samples consulted with their parents regularly - almost daily. The discussion in the family is at a high level (78.6%). On parenting factors, parents used mixed parenting styles including authoritative parenting style (49.7%), authoritarian parenting style (44.3%), and permissive parenting style (48.3%).

For parental monitoring and supervision, most of the samples are under the supervision and monitoring by their parents on a regular basis regarding the issues that parents need to be aware of where adolescents go after school or when and how they leave the house, i.e. shopping malls, parks, friends' houses, paths adolescents walk by, plans for after-school activity or when leaving the house of adolescents, and with whom the adolescents are with after school or when they leave the house. Also, parents define time limits on leaving the house, define the places adolescents are allowed, limit adolescents' activities after school or when leaving the house. The majority of the parents recognize their children's friends. Nevertheless, sometimes the parents give freedom to their children. Four in five of the samples have parental monitoring and supervision (84.9%). Control of internet contents consumption showed that parents of more than a half of the samples control the internet contents consumption by adolescents (58.6%).

| Factor | Percentage | Ν | Mean | S.D. | Min-Max |
|--|------------|-----|------|------|---------|
| Family communication factors | | | | | |
| Communication with parents about sex | | 282 | 1.0 | 0.7 | 0-3 |
| Low level | 89.7 | | | | |
| High level | 10.3 | | | | |
| The family relationship (discussion in the family) | | 351 | 2.3 | 0.5 | 0.7-3 |
| Low level | 21.4 | | | | |
| High level | 78.6 | | | | |
| Parenting factors | | | | | |
| Authoritative parenting style | | 288 | 2.0 | 0.5 | 0.6-3 |
| No | 50.3 | | | | |
| Yes | 49.7 | | | | |
| Authoritarian parenting style | | 287 | 0.7 | 0.4 | 0-3 |
| No | 55.7 | | | | |
| Yes | 44.3 | | | | |
| Permissive parenting style | | 290 | 1.0 | 0.5 | 0-3 |
| No | 51.7 | | | | |
| Yes | 48.3 | | | | |
| Parents' Monitoring and Supervision factors | | | | | |
| Parental monitoring and supervision | | 357 | 2.3 | 0.4 | 0.5-3 |
| No | 15.1 | | | | |
| Yes | 84.9 | | | | |
| Control of the Internet contents consumption | | 326 | - | - | - |
| No | 41.4 | | | | |
| Yes | 58.6 | | | | |

Table 2 Percentage and mean of adolescent classified by family factors

4.4 The Correlation Analysis (Table 3)

The analysis of Pearson's Product Moment Correlation shows that the perception and attitude factors include the perception on the consequences of HIV infection, perception on the consequences of teenage pregnancy, self-efficacy on sexual refusal and negotiation and attitude on waiting to have sexual relations were positively related to the intention to not have premature sexual relations in adolescents with a .05 level of statistical significance (r = .161 p-value < 0.01, r = .136 p-value < 0.05, r = .155 p-value < 0.05, and r = .132 p-value < 0.05 respectively). The chance factors included pre-sexual behaviors, a lover, and opportunity to have sexual relations were positively related to the intention to not have premature sexual relations in adolescents with a .05 level of statistical significance (r = .232 p-value < 0.001, r = .292 p-value < 0.001, and r = .283 p-value < 0.001 respectively). The parents' monitoring and supervision factors included parental monitoring and supervision and control of the internet contents consumption were positively related to the intention to not have premature sexual relations in adolescents with a .05 level of statistical significance (r = .136 p-value < 0.001, respectively). The parents' monitoring and supervision factors included parental monitoring and supervision and control of the internet contents consumption were positively related to the intention to not have premature sexual relations in adolescents with a .05 level of statistical significance (r = .136 p-value < 0.05 and r = .154 p-value < 0.01 respectively). Family communication factors, parenting factors, and peer norms on having sex are not related to the intention to not have premature sexual relations in adolescents with a .05 level of statistical significance.

| Table 3 The correlation bet | veen the intention to not have premature sexual relations | and personal and family factors, |
|-----------------------------|---|----------------------------------|
| among adolescents 13 - 14 | ears old. | |

| Factor | Correlation (r) | <i>p</i> -value |
|--|-----------------|-----------------|
| Perception and attitude factors | | |
| Perception about the consequences of HIV infection | .161 | 0.003** |
| Perception about the consequences of teenage pregnancy | .136 | 0.015* |
| Self-efficacy on sexual refusal and negotiation | .155 | 0.020* |
| Attitude about waiting to have sexual relations | .132 | 0.022* |
| Chance Factors | | |
| Pre-sexual behaviors | .232 | 0.000 *** |
| A lover | .292 | 0.000*** |

statistical significance level * p < 0.05, ** p < 0.01, *** p < 0.001

Table 4 The correlation between the intention to not have premature sexual relations and personal and family factors, among adolescents 13 - 14 years old. (Cont.)

| Factor | Correlation (r) | <i>p</i> -value |
|---|-----------------|-----------------|
| Chance Factors (Cont.) | | |
| Opportunity to have sexual relations | .283 | 0.000*** |
| Peer norms about having sex | .039 | 0.501 |
| Family communication factors | | |
| Communication with parents about sex | 098 | 0.099 🧹 |
| The family relationship (discussion in the family) | .001 | 0.990 |
| Parenting factors | | |
| Authoritative parenting style | .055 | 0.353 |
| Authoritarian parenting style | .001 | 0.993 |
| Permissive parenting style | 034 | 0.566 |
| Parents' Monitoring and Supervision factors | C | |
| Parental monitoring and supervision | .136 | 0.010** |
| Control of the Internet contents consumption | .154 | 0.005** |
| statistical significance level * $n < 0.05$, ** $n < 0.01$, *** $n < 0.001$ | | |

statistical significance level * p < 0.05, ** p < 0.01, *** p < 0.001

4.5 The Multiple Regression Analysis (Table 5)

In this study, stepwise method of multiple regression analysis is used for selecting variables to predict the intention to not have premature sexual relations in adolescents. Variables were managed into analysis groups to form Dummy Variables prior to analysis. After that, the variables were tested using Correlation Matrix to prevent potential problems of multicollinearity. If correlation coefficients were less than 0.7, i.e. there are no independent factors with high correlation within themselves, all those independent factors can be used in the regression of multiple. The analysis shows that the parental monitoring and supervision, the opportunity to have sexual relations, a lover, and attitude about waiting to have sexual relations have a positive correlation with statistical significance towards the intention to not have premature sexual relations in adolescents (p < 0.01, 0.01, 0.01 and 0.05 respectively). Also, altogether these four variables can 86.0% predict the intention to not have premature sexual relations in adolescents. After considering the regression coefficient (Beta), the parental monitoring and supervision was found to be most correlated with the intention to not have premature sexual relations in adolescents, followed by the opportunity to have sexual relations, lover and attitude on waiting to have sexual relations respectively.

Table 5 Stepwise multiple regression analysis of the personal and family factors on the intention to not have prematuresexual relations among adolescents 13 - 14 years old.

| Personal and family factors | В | Beta | SE | t |
|---|-------|-------|-------|---------|
| Personal Factors | | | | |
| Opportunity to have sexual relations | 0.261 | 0.287 | 0.102 | 2.549** |
| (Not have=1, Have=0) | | | | |
| Having a lover (Not have=1, Have=0) | 0.286 | 0.284 | 0.104 | 2.749** |
| Attitude about waiting to have sexual relations | 0.168 | 0.126 | 0.081 | 2.062* |
| Family Factor | | | | |
| Parental monitoring and supervision (Yes=1,No=0) | 0.305 | 0.307 | 0.102 | 2.995** |
| F=102.007 (p-value<0.0), R=0.932, R2-adj=0.860, N=225 | | | | |
| | | | | |

statistical significance level * p < 0.05, ** p < 0.01, *** p < 0.001

5. Discussion

The gender of adolescents is correlated to the intention to not have premature sexual relations in adolescents; the male adolescents have less intention to not have premature sexual relations than female adolescents. Males have more risky behaviors than females to have sexual relations, and males are more likely to have sexually risky behaviors because Thai society believes that men can have sex before and after marriage; meanwhile, females are raised up to value the belief that a good woman reserves their virginity.

On perception and attitude factors, the studied result also finds that the samples with high perception on the consequences of HIV infection have higher intention to not have premature sexual relations than the samples with lower perception about the consequences of HIV infection. In consistency with some past studies, the adolescents, who experience sexual relations, highly perceive the risk of sexually transmitted infection, and HIV/ AIDS than those without the experience to have sexual relations and factors. The perceived risk of disease, perceived disease severity, and perceived benefits of good practice have a positive correlation with the behaviors regarding AIDS with statistical significance of 0.05 (Hemloha P., 2001).

The perception on the consequences of teenage pregnancy, according to the study, is correlated with the intention to not have premature sexual relations in adolescents who perceive the impact of pregnancy at a high level, while the adolescents with lower perceived effects of pregnancy have lower intention to not have premature sexual relations. The adolescents with higher self-efficacy on sexual refusal and negotiation have high intention than those who have lower self-efficacy. This is consistent with the study of life skills development program; those who receive the development of skill to prevent sexually risky behaviors develop self-efficacy, defensing sexual relations before marriage and higher prevention of sexually risky behaviors (Aramkotchakon C., 2001; Simtaraj P., 2001; Lounnetngern J., 2008). The samples with a higher attitude have higher intention to not have premature sexual relations than those with lower attitude about waiting to have sexual relations. Consistent with a study, attitude towards sexual relations, knowledge of contraception, and family lifestyle were correlated with unwanted pregnancy among female adolescents with statistical significance of 0.01 (Lertsakornsiri M., 2014).

For the chance factors, the adolescents who do not have pre-sexual behaviors have higher intention to not have premature sexual relations than those who have pre-sexual behaviors. Furthermore, the adolescents who have a lover have lower intention to not have premature sexual relations that those who do not have a lover. Also, those who have opportunity to have sexual relations have higher intention to not have premature sexual relations. This is consistent with a study that adolescents who often go to pub have more tendencies to have sexual relations (Nakrai C., 2002). The peer norms on having sex shows that self-efficacy in sexual relation negotiation is not correlated with the intention to not have premature sexual relations, and this is contrasting with a recent study of the friends' influence towards adolescents, i.e. adolescents who have more friends are encouraged to have higher confidence and self-worth. Thus, their friends may change their behaviors in order to comply with the group's interests. As a result, a group of friends have more influence on the behaviors of adolescents than their family (Rerngtrakul S., 2008).

For the family communication factors, the communication with parents about sex is not correlated with the intention to not have premature sexual relations probably because such communication may be poor or superficial, and parents are not able to reach the mind of adolescents. Previous study also found that sexual communication in families was not correlated to sexually risky behaviors (Butcharoen W., 2011). For family relationship (discussion in the family), the study shows that family relationship (discussion in the family) is not correlated with a intention not to have premature sexual relations in accordance with the factors that influence sexual behaviors of the Matthayom 2 students with good family relationship; however, the family relationship is not correlated with sexual behaviors (Khunkum W., 2010). Nevertheless, a study of psycho-social factors in relations to the behaviors to have sexual relations before marriage in university students showed that family relationship between parents and children is correlated with sexual relations before marriage, but it cannot predict behaviors to have sexual relations before marriage in students (Rinnasak P., 2009). In addition, there should be a future study on this because of its paramount importance. The parenting factors included authoritative parenting style, authoritarian parenting style, and permissive parenting style are not correlated with the intention to not have premature sexual relations. This is consistent with a study of sexually risky behaviors of high school students in Muang District, Khon Kaen, i.e. parenting styles of family have no correlations with sexually risky behaviors. This also conflicts with a study that parenting style is correlated with self-esteem of early adolescents (Rojjanapraphaphun N., 1998), which should be a future study on this.

The parents' controlling factors, parental monitoring and supervision is correlated with the intention to not have premature sexual relations in adolescents, i.e. the adolescents with parental monitoring and supervision will not have intention to have premature sexual relations, while those who do not experience parental monitoring and supervision. This is consistent with a recent study; students are under

parents' supervision and monitoring have lower sexually risky behaviors (Butcharoen W., 2011); parental monitoring and supervision can affect the perception of adolescents to delay sexual relations, while those who are not regulated tend to have sexual relations faster (Sieverding, Adler, Witt, & Ellen, 2005). The control of the internet contents consumption is correlated with the intention to not have premature sexual relations in adolescents. Also, a study of sexual media access and emotional stimulation of junior high school students showed that the most sexually arousing media included the internet on a PC followed by internet on a smartphone (Butcharoen W., 2011; Ingkathawornwong T., et al., 2007). In addition, a study of risk factors in adolescents from Mueang District, Chiang Mai, regarding unwanted pregnancy showed that sexual media access led to adolescents' imitation (Suwan P., 2006).

To predict the factors influencing the intention to not have premature sexual relations in adolescents by Multiple Regression Analysis, the study shows that variables that can predict the intention to not have premature sexual relations in adolescents include: the opportunity to have sexual relations (negative correlation); parental monitoring and supervision (positive r correlated); attitude on waiting to have sexual relations at an appropriate age (positive correlation); and a lover (negatively correlated). So the adolescents, who have increased supervision and monitoring by parents, also do not have a lover and have the right attitude about waiting to have sexual relations at an appropriate age that will be increased intention to not have premature sexual relation.

The role of the family is important in controlling and monitoring the behaviors of adolescents; parents should be aware of adolescents' location, activities, and with whom they are with, parents should be informed about current status of early adolescents in terms of what they are doing, where they are at, who they are with, while they are away from home or taking time after school. Furthermore, adolescents should not be provided with a chance to be alone with a person of the opposite sex or be in place that could lead to sexual relations. For perception and attitude, if early adolescents are informed about the values or awareness about the proper roles of certain ages, they would realize and can predict the advantages and disadvantages of sexual relations on their own. These will be a protective factor for adolescents to delay sexual relations to an appropriate age.

6. Conclusion

This study investigated the relationship of personal factors and family factors in relations to the intention to not have premature sexual relations among early adolescents, and study the influential factors for the prediction of the intention to not have premature sexual relations among early adolescents. Sample used in this study was the adolescents aged 13 -14 from 420 randomly selected households (420 adolescents and 420 mothers or fathers). The study found that the parental monitoring and supervision, the opportunity to have sexual relations, lover, and attitude about waiting to have sexual relations can predict the intention to not have premature sexual relations. The results of this study should be considered and applied for the following aspects:

Policy-related Recommendation: The role of family in supervision and monitoring adolescents aged between 13 - 14 should be promoted. The family has a role in creating adolescents' awareness to behave appropriately in accordance with their age and be able to predict the outcome, i.e. pros and cons of their own sexual behaviors.

Future Research Suggestions: The future research should be a qualitative research, such as research of focus group or in-depth interviews, to acquire descriptions to any finding in the study, e.g. sexual communication with parents and content details as well as methods of communication. Also, parenting styles for children aged 13 - 14 should be detailed in most appropriate way.

7. Acknowledgements

The researcher would like to express my sincere gratitude to Prof.Aphichat Chamratrithirong, my major advisor, for his guidance and invaluable support throughout this study. I am also most grateful to Assist.Prof. Umaporn Pattaravanich, my co-advisor, and Dr.Oratai Rhucharoenponpanich, my external expert, for their useful advices and constructive suggestions. In addition, I would like to express gratitude to the Thai Family Matters project for permission to use data set. It is my pleasure to express my appreciation

to Health Economics Academy for Research and Training Foundation for their support by providing scholarship throughout my master's degree studied.

8. References

- Aramkotchakon C. (2001). Effectiveness of life skills on self-efficacy for prevention of premarital sex of female vocational students, chiangmai province. A thesis for the degree of Master of Science (Public Health) Program in Family Health. Mahidol University.
- Bandura, A. (1999). Social cognitive theory. An agentic perspective. Asian Journal of Social Psychology, 2, 21-41.
- Buckner, J. C. Mezzacappa, E., & Beardslee, W. R. (2003). Characteristics of resilient youths living in poverty: the role of self-regulatory processes. *Development Psychopathology*, 15(1), 139-162.
- Bureau of Reproductive Health. (2013). sexual intercourse situation in adolescents and youth Report 2013. Retrieved April 16, 2014, from http://rh.anamai.moph.go.th//all_file/brochure
- Butcharoen W. (2011). Factors related to sexual risk behaviors among secondary school students. A thesis for the degree of Master of Science (Public Health) Program in Public Health Nursing. Mahidol University.
- Chamratrithirong, A., Rhucharoenpornpanich, O., Chaiphet, N., Rosati, M. J., Zimmerman, R., Miller, B. A., Cupp, P., et al. (2009). Beginning the Thai Family Matters Project: An areal analysis of bad neighborhoods and adolescents' problematic behaviours in Thailand. *Journal of Population and Social Studies*, 18(1), 141-158.
- Cotton S., Mills L., Succop PA., Biro FM., Rosenthal SL. (2004). Adolescent girls perceptions of the timing of their sexual initiation: "too young" or "just right"?. *J Adolesc Health*, *34*(5), 453-458.
- Devore, E. R. & Ginsburg, K. R. (2005). The protective effects of good parenting on adolescents. *Current Opinion in Pediatric*, 17(4), 460-465.
- Hemloha P. (2001). Health practical behavior concerning AIDS prevention of upper level secondary students in the secondary schools Sahawithayakataseam group under the Jurisdiction of the Department of General Education in Bangkok Metropolitan. A thesis for the degree of Master of Education in Health Education. Srinakharinwirot University.
- Ingkathawornwong T, Kritcharoen S, Pol-in K & Charoonsak Y. (2007). Risk behaviour from sexual activity in female adolescents at vocational school. *Songkla Med J*, 25(6), 511-520.
- Jantaraviruj O. (2001). Factors influencing sexual risk behavior of secondary school students in Samuthprakarn province. A thesis for the degree of Master of Science (Public Health) Program in Health Education and Behavioral Sciences. Mahidol University.
- Khunkum W. (2010). Factors Affecting Sexual Behavior Mattayomsuksa of 2 Student, Ubon Ratchathani Province. A thesis for the degree of Master of Public Health in Health Promotion. Ubon Ratchathani Rajabhat University.
- Lertsakornsiri M. (2014.) Factors Associated with Unwanted Adolescent Women Pregnancy in the Perceived of The First Year Students at Saint Louis College. *Journal of the Royal Thai Army Nurses*, 15(1), 90-98.
- Lloyd, J. J. & Anthony, J. C. (2003). Hanging out with the wrong crowd: how much difference can Parents make in an urban environment. *Journal of Urban Health*, 80(3), 383-399.
- Lounnetngern J. (2008). Effects of training perceived self-efficacy and promoting attitude of AIDS risk behavioral prevention on self-efficacy, attitude and AIDS risk behavioral avoidance intention among female students. A thesis for the degree of Master of Science in Counseling Psychology. Chiang Mai University.
- Nakrai C. (2002). Influence of pubs on sexual relations among adolescents a case study at RCA ,Bangkok. A thesis for the degree of Master of Art in Sociology. Chulalongkorn University.

Rerngtrakul S. (2008). Child and adolescent psychiatry textbook. 2nd Edition. Bangkok. Ruenkaewprinting.

Rinnasak P. (2009). Research Project: Psycho-Social Correlates of Premerital Sexual Behaviors of Students in University. Bangkok. Rajamangala University of Tecgnology Krungthep.

- Rojjanapraphaphun N. (1998). Relationship between family relation, child rearing pattern and self-esteem of early adolescents in the secondary schools under the department of general educations aranyaprathet district, Sakaeo province. A thesis for the degree of Master of Science (Public Health) Program in Family Health. Mahidol University.
- Sieverding, J.A., Adler, N., Witt, S., & Ellen, J., (2005). The Influence of Parental Monitoring On Adolescent Sexual Initiation. *Archives Pediatric Adolescent Medical*,159(8), 724-729.
- Simtaraj P. (2001). Effects of skills development for prevention of sexual risk behavior on perceived selfefficacy and sexual risk behavior among male vocational students. A thesis for the degree of Master of Nursing Science in Medical and Surgical Nursing. Chiang Mai University.
- Suwan P. (2006). Risk Factors Leading to Unwanted Teenager Pregnancy in the Muang District Chiang Mai Province. A thesis for the degree of Master of Education in Health Promotion. Chiang Mai University.
- United Nations Population Fund of Thailand, (2013). State of Thailand Population Report 2013 Motherhood in childhood facing the challenge of adolescent pregnancy. 1st Edition. Bangkok: Advanced Printing Service Co.,Ltd.
- United Nations, Department of Economic and Social Affairs, Population Division. (2014). World Fertility Report 2013: Fertility at the Extremes (United Nations publication).

262