

## Contraceptive use Behavior among Vietnamese Unmarried young Women Seeking Pregnancy Termination

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บทความวิจัย

วารสารพยาบาลศาสตร์และสุขภาพ

Journal of Nursing Science &amp; Health

ปีที่ 37 ฉบับที่ 2 (เมษายน-มิถุนายน) 2557

Volume 37 No.2 (April-June) 2014

### บทคัดย่อ

การวิจัยเชิงพรรณานี้มีวัตถุประสงค์เพื่อศึกษาพฤติกรรมการคุมกำเนิด ระดับของการรับรู้ความเสี่ยงต่อการตั้งครรภ์ การรับรู้ประโยชน์ และการรับรู้อุปสรรคของการใช้ยาคุมกำเนิด อิทธิพลต่อสังคม (พ่อ-แม่ เพื่อนร่วมงานและแฟน), ปัจจัยบริบท (อายุที่เหมาะสมของการมีเพศสัมพันธ์ครั้งแรก ระยะเวลาที่คบหากับแฟน การพูดคุยเรื่องแต่งงาน และการบังคับให้มีเพศสัมพันธ์) และข้อมูลพื้นฐาน ในหญิงเวียดนามที่ยังไม่ได้แต่งงาน จำนวน 200 คน ที่มารับบริการตรวจติดตามภายหลังสิ้นสุดการตั้งครรภ์ ณ โรงพยาบาล เมืองฮานอย ประเทศเวียดนาม เก็บรวบรวมข้อมูลตั้งแต่เดือนมิถุนายน ถึงกรกฎาคม 2556 ผลการศึกษาพบว่า มีผู้หญิงเพียงร้อยละ 10.5 ที่รายงานว่าตนใช้การคุมกำเนิดอย่างสม่ำเสมอ แต่เป็นวิธีการคุมกำเนิดที่ไม่สามารถป้องกันการตั้งครรภ์ได้อย่างมีประสิทธิภาพเท่าที่ควร เช่น การคุมกำเนิดฉุกเฉิน การหลังภายนอก และการนับระยะปลอดภัย โดยวิธีการคุมกำเนิดที่นิยมมากที่สุด 3 ลำดับแรกแต่ไม่ได้ใช้เป็นประจำหรือทุกครั้งที่มีเพศสัมพันธ์คือ ถุงยางอนามัย (28.5%) การคุมกำเนิดฉุกเฉิน (23.5%) และการนับระยะปลอดภัย (14.5%) ผู้หญิงเหล่านี้มีการรับรู้อุปสรรคของการใช้ยาคุมกำเนิดโดยเฉพาะอย่างยิ่งกลัวผลข้างเคียงของฮอร์โมนคุมกำเนิดในระดับสูง และรับรู้ความเสี่ยงต่อการตั้งครรภ์ ประโยชน์ของการคุมกำเนิด และอิทธิพลด้านสังคมเกี่ยวกับการคุมกำเนิดในระดับปานกลาง ส่วนปัจจัยด้านบริบทพบว่า ผู้หญิงที่คบกับแฟนมานานน้อยกว่า 1 ปี เคยพูดคุยเรื่องการแต่งงาน และผู้ที่เคยถูกแฟนบังคับให้มีเพศสัมพันธ์ มีพฤติกรรมการคุมกำเนิดในระดับต่ำ และยังพบว่าแม่ผู้หญิงส่วนใหญ่มีระดับการศึกษาสูง แต่ร้อยละ 47.5 รายงานว่าตนต้องได้รับอนุญาตจากแฟนก่อนใช้ยาคุมกำเนิด ผลการศึกษานี้ชี้ให้เห็นว่า การออกแบบโปรแกรมสุขศึกษาและกลยุทธ์เพื่อลดอัตราการตั้งครรภ์ไม่พึงประสงค์จะต้องรวมถึงการเสริมสร้างการรับรู้ของหญิงสาวเกี่ยวกับความเสี่ยงของการตั้งครรภ์ ความรู้ที่ถูกต้องเกี่ยวกับผลข้างเคียงของวิธีการคุมกำเนิด การมีส่วนร่วมของผู้ชาย อันจะนำไปสู่การใช้วิธีคุมกำเนิดให้มีประสิทธิภาพมากขึ้น

**คำสำคัญ :** พฤติกรรมการใช้ยาคุมกำเนิด หญิงสาวที่ยังไม่ได้แต่งงาน การทำแท้ง ประเทศเวียดนาม

### Abstract

This cross-sectional descriptive study aimed to describe contraceptive use behavior, levels of perceived risks of getting pregnant, benefits and barriers to contraceptives use, social influences (support from parents, peers and sexual partners), contextual factors (appropriate age for first sex, relationship length, relationship commitment, and sexual coercion), and demographic backgrounds of 200 unmarried young women who came to a hospital in Hanoi, Vietnam for a follow-up examination after having had an abortion during June to July 2013. Results showed that only 10.5% had used contraceptive regularly but unreliable methods such as emergency contraception, withdrawal and periodic abstinence. The first three methods that the subjects preferred; yet used only sometimes,

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\*\*ผู้ช่วยศาสตราจารย์ ศูนย์ประสานงานองค์การอนามัยโลกด้านการศึกษาวิจัยและฝึกอบรมด้านแพศกาและสุขภาพสตรี คณะพยาบาลศาสตร์ มหาวิทยาลัยขอนแก่น

were condoms (28.5%), emergency contraception (23.5%) and periodic abstinence (14.5%). The women reported a high level of perceived barriers of using contraceptives, especially fear of side effects, while a moderate level was found with regards to perceived risks of getting pregnant, perceived benefits of using contraceptives and social influences. Regarding contextual factors, women who have been with their sexual partner for less than 1 year, those who have previously discussed marriage and those who have been forced to have sex, reported decreased contraceptive use. Interestingly, despite a high educational level, 47.5 % of the women indicated the need to seek partner approval for their contraceptive use. These findings indicates that the intervention to reduce unplanned pregnancy should include education programs/strategies to strengthen young women's perception about the risks of getting pregnant and male involvement which will lead to more effective contraceptive use.

**keywords:** contraceptive use behavior, unmarried young women, abortion, vietnam.

## Introduction

Number of unwanted pregnancy and induced abortion in unmarried young women is increasing and becoming an important social problem in Vietnam. It has been estimated that abortion among young women in Vietnam accounts for 18–20% of all abortion cases<sup>1</sup>. According to the latest survey by the National Obstetric Hospital in Hanoi, annually they found that in 5000 cases of abortion taking place up to 30% are young women less than 24 years old<sup>1</sup>. Unwanted pregnancy is correlated with increasing maternal mortality and morbidity<sup>2</sup> as well as high levels of distress, anxiety and subsequent depression<sup>3</sup>. Effective contraceptive use has been recognized as effective strategy to preventing unwanted pregnancy and reducing abortion<sup>4</sup>.

Previous literature review demonstrates that several factors are linked to contraceptive use including perceived risks of getting pregnant, perceived benefits, perceived barriers of using contraceptives, social influences (perception of supports from parents, peers and sexual partners for contraception)<sup>5-13</sup>, and contextual factors (duration of relationship, relationship commitment, age at the time of first sexual intercourse, and sexual coercion)<sup>14-18</sup>. However, most of these studies have

been conducted in other countries. Currently, there has not been any published quantitative report about contraceptive use behavior among unmarried young women in Vietnam, particularly unmarried young women seeking abortion who are vulnerable to both physical and psychological consequences<sup>1</sup>. As such, there is a need to understand these factors and contraceptive use behavior among this vulnerable group. The purpose of this study was; therefore, to study contraceptive use behavior, level of perceived risks of getting pregnant, perceived benefits and perceived barriers of using contraceptives, social influences, contextual factors as well as demographic backgrounds of unmarried young women seeking pregnancy termination in Hanoi, Vietnam.

## Materials and methods

### Patient sample

Sample size estimation was calculated based on Lwanga and Lemeshow<sup>19</sup> and previous estimated proportion of 0.75 from Nguyen<sup>5</sup>. A simple random sampling was used to recruit 200 women from Reproductive Health Counselling Center in National Obstetric Hospital in Hanoi, Vietnam. The inclusion

criteria for eligible participants included Vietnamese unmarried women aged 18 to 24 years who come to the hospital for a follow up examination after having an abortion from unplanned/unwanted pregnancy, and were able to read and write Vietnamese. Women who had a history of mental health problem or cognitively impaired, or had a physical medical complication were excluded in this study.

### Procedures

A descriptive cross-sectional study was conducted from June to July at the National Obstetric Hospital, the largest hospital in Obstetric in Hanoi, Vietnam. The eligible women were approached and invited to a private room at the reproductive center where they came for follow up exam after abortion. The researcher explained the objectives of the study and the women's right to participate in the study. Women who agreed to participate were asked to complete the questionnaire and put the completed questionnaire into the query box. Completion and return of questionnaire was used as "implied consent" to participate the study. The Institute Review Board (IRB) at Khon Kean University approved the protocol of the study in May, 2013

### Measurement

A set of self administered questionnaire was used to collect the data composed of seven parts and took about 20 minutes to complete. This questionnaire was translated into Vietnamese language with back translation process by 3 bilingual translators.

#### *Part 1: Demographic data assessment form*

This form was developed by the researcher including 8 items: gravida, parity, previous history of abortion, age, level of education, family income, family type and accommodation situation.

#### *Part 2: Perceptions about the risk of becoming pregnant scale*

The scale was developed by Juiling, Linghong, and Rayuajin<sup>9</sup> including 5 items. Responses are rated on a 3-point scales (1 = agree; 2 = neutral; and 3 = disagree). In this study, the content validity index (CVI) and Cronbach's alpha were used<sup>20</sup>; they were 1.0 and .70 respectively.

#### *Part 3: Perceptions of benefits of using contraceptives scale*

The original scale named decisional balance scale with 14 items and was developed by Bui and colleagues<sup>21</sup> This 14 item scale covered varied contraceptive methods including condom, hormonal contraceptives and intrauterine device (IUD). For the purpose of this study, only 4 items that relate to condom and hormonal contraceptives were adapted. Also, 3 more items were added to reflect interpersonal contraceptive benefits. Therefore, this scale was modified including 7 items to capture personal contraceptive benefits (5 items) and interpersonal contraceptive benefits (2 items). The participants were asked to rate each item on a five-point Likert scale ranging from 1 (not important) to 5 (very important). In this study, the CVI and Cronbach's alpha for this scale were 1.0 and 0.80 respectively.

#### *Part 4: Perceptions of barriers of using contraceptives scale*

This scale was modified by the researcher which based on the original scale of Jacqueline and colleagues<sup>22</sup> Of the 8 statements used in the original scale, 1 item that was related to barrier about religion was omitted since the majority of Vietnamese people classify themselves as non-religious. Also 1 item related to the price of contraceptives was deleted because contraceptive methods commonly used in

Vietnam are sold at reasonable prices. In addition, 3 more items were added to cover “fear of side effects; fear that using contraception would damage the secrecy of sexual life.” The result was a modified scale with 9 statements which relate to 2 aspects of barriers of using contraceptives: social cultural factors (5 items), and method characteristics (4 items). A five-point scale were used to measure for each statement, ranging from 1 (strongly disagree) to 5 (strongly agree). In this study, the CVI and Cronbach’s alpha for the scale were 1.0 and 0.74 respectively.

#### *Part 5: Perceptions of support from parents, peers and sexual partners for contraception scale*

The scale was developed by Ghazaleh and colleagues<sup>23</sup>. Eight items in original scale were adapted for the present study with 3 domains, including perceptions of support from sexual partner for contraception (4 items), perception of peer’s contraception use (3 items) and perceptions of support from parents (1 item). The response scale ranged from 1 (strongly disagree) to 4 (strongly agree). The CVI and Cronbach’s alpha for this scale were 0.95 and 0.74 respectively.

#### *Part 6: Contextual questionnaire*

This questionnaire was developed by the researcher including 4 items to assess duration of relationship, relationship commitment, appropriate age to have first sex and sexual coercion. The respondents were required to answer “yes” or “no” or fill in the blank with “information”. Frequency and percentage were calculated to interpret for the variables of interest. The CVI for this scale was 1.0.

#### *Part 7: Contraceptive behaviour scale (CBS)*

CBS was developed from Wang and Chiou<sup>17</sup>. The original scale composed of 5 statements to measure participants’ consistently, accurately, continuously and active involvement. In this study, the statement that related to take compensative action was divided into 2 statements to make more easy understanding.

Therefore, the result was a modified scale with 6 items. Responses were rated on a scale from 0 (never do this) to 4 (always do this). The CVI and Cronbach’s alpha for this scale were 0.93 and 0.87 respectively.

### **Validity and Reliability**

Three professional experts in reproductive health examined the content validity of the scales for the study. Cronbach’s alpha was used to examine the internal consistency of each scale. The Content Validity Index (CVI) for all scales ranged from 0.93 to 1.00 which indicated that all scales were acceptable for further use<sup>20</sup>. Moreover, the reliability of the questionnaire in Vietnamese version was tested and exhibited Cronbach’s alpha coefficients ranged from 0.70 to 0.87 which indicates the acceptable reliability<sup>20</sup>

### **Statistical analysis**

Descriptive statistics such as frequency, percentage, means, and standard deviation were used to summarize the variables of interest.

### **Results**

#### **Demographic characteristics of subjects**

The average age of the 200 young women was  $21.28 \pm 2.0$ , ranging from 18 to 24 years. It was the first pregnancy for most respondents (85%), with only 12.5% of 2<sup>nd</sup> pregnancy and 2.5% of 3<sup>rd</sup> pregnancy. All of the women had parity 0 and the majority of them were from families with low socioeconomic status, the average subject’s family (59%) had a monthly average income 3.1–5.0 million VND/month/person (155–250 US dollars). Nearly a half of them (48.5%) had a diploma/associate or a university education. Most of them came from a 2-parent family (90.5%), and 31% were living with their family. The demographic characteristics of subjects presented in detail in Table 1.

**Table 1:** Frequency and percentage of demographic characteristics of subjects (n=200)

demographic characteristics		frequency (n=200)		percentage	
<b>gravida</b>					
	1	170		85%	
	2	25		12.5%	
	3	5		2.5%	
<b>parity</b>					
	0	200		100%	
<b>age</b>					
		Min = 18	Max = 24	$\bar{x}$ = 21.28	SD = 2.003
	< 20	47		23.5%	
	20-24	153		76.5%	
<b>education background</b>					
	Junior high school	22		11%	
	Senior high school	81		40.5%	
	Diploma/Associate	60		30%	
	University or higher	37		18.5%	
<b>family type</b>					
	Two-parent family	181		90.5%	
	Single-parent family	19		9.5%	
<b>accommodation situation</b>					
	Live with family	62		31%	
	Live alone or with others	138		69%	

### Contraceptive use behavior

Most of the subjects (82.5%) had used at least 1 contraceptive method before getting pregnant. The three major methods that women had used most often were condoms (28.5%), emergency contraception (23.5%) and periodic abstinence (14.5%), but these methods had not been used regularly. When asked if the women used contraceptives every time they have

sex, 72% stated that they used contraceptives for only occasionally, sometimes or most of the time and only 10.5% of subjects always used contraceptives but unreliable methods such as withdrawal, periodic abstinence or emergency contraception (5%, 3% and 2.5%, respectively). On the CBS,  $\bar{x}$  score for contraceptive behavior was only 8.76 (SD = 5.78). The details of contraceptive use behavior are presented in Table 2.

**Table 2:** The distribution of contraceptive method used before getting pregnant (N=200)

contraceptive method used before getting pregnant	NU N (%)	UO N (%)	US N (%)	UM N (%)	UA N (%)	Total N (%)
never used contraceptives	35 (17.5)					35 (17.5)
condom		25 (12.5)	29 (14.5)	3 (1.5)		57 (28.5)
oral contraceptive pill		1 (0.5)	1 (0.5)			2 (1.0)
emergency contraception		19 (9.5)	21 (10.5)	2 (1.0)	5 (2.5)	47 (23.5)
withdrawal		1 (0.5)	4 (2.0)		10 (5.0)	15 (7.5)
periodic abstinence		4 (2.0)	17 (8.5)	2 (1.0)	6 (3.0)	29 (14.5)
condom & emergency contra- ception		2 (1.0)	6 (3.0)	2 (1.0)		10 (5.0)
periodic abstinence & emer- gency contraception		1 (0.5)	2 (1.0)	2 (1.0)		5 (2.5)

**Note:** NU= never used, UO= used occasionally, US= used sometime, UM= used most of the time, UA= used always.

Perceived risk of getting pregnant, perceived benefits, perceived barriers and social influences

A moderate level was found at perceived risks of getting pregnant, perceived benefits of using contraceptives and social influences (Mean ± SD= 10.79± 2.88; 23.8±4.57; 19.7±.99 respectively). On the perception about the risks of becoming pregnant scale, nearly half of subjects (41.5%) agreed that they did not get pregnant the last time when they had sex without contraception, so they do not think they

would be pregnant this time which had the lowest score ( $\bar{x}$  = 1.94, SD =.88). On the women’s perceived benefits of contraception, 49% of the subjects did not feel that using contraceptive is important for their self-respect ( $\bar{x}$ =2.74, SD=.92), followed by more than one-third of subjects (36%) showed that they were neutral in their feeling with the benefit self-control of contraceptives ( $\bar{x}$ =2.95, SD=1.14). Interestingly, on the scale to measure social influences, 42.5% disagreed that their parents think unmarried

young women should use contraceptives when having sex ( $\bar{X} = 2.27$ ,  $SD = .83$ ), followed by item 3 with nearly half of subjects (47.5%) agreed that their sexual partner is the one who makes the decision about contraception ( $\bar{X} = 2.28$ ,  $SD = .69$ ). The women in this study reported a high level of perceived barriers of using contraceptives (Mean  $\pm$ SD= 33.82 $\pm$ 4.43) especially most of subjects “strongly agree” or “agree”

that hormonal contraceptives have many side effects ( $\bar{X}=4.21$ ,  $SD=.63$ ) and that they felt shameful to buy condoms/pills/patch from the drugstore ( $\bar{X}=4.13$ ,  $SD=0.66$ ). The detail of perceived risks of getting pregnant, perceived benefits of using contraceptives, perceived barriers of using contraceptives and social influences are presented in Table 3.

**Table 3:** Perceived risk of getting pregnant, perceived benefits, perceived barriers and social influences score of the samples.

variables	Item	Possible score	Mean $\pm$ SD
perceived risks of getting pregnant	1. Because I did not get pregnant the last time when having unprotected sex I think I would not get pregnant either this time.	1-3	1.94 $\pm$ .88
	Total score	5-15	10.79 $\pm$ 2.88
perceived benefits of using contraceptives	1.If I used modern contraceptive, I would have more self-respect	1-5	2.74 $\pm$ .92
	2.Using modern contraceptives give a good sense of control	1-5	2.95 $\pm$ 1.14
	Total score	7-35	23.8 $\pm$ 4.57
perceived barriers of using contraceptives	1. Hormonal contraceptives have many side effects	1-5	4.21 $\pm$ 0.63
	Total score	9-45	33.82 $\pm$ 4.43
perceptions of support from parents, peers and sexual partners for contraception	1. Your parents think unmarried young women should use contraceptive when having sex.	1-4	2.27 $\pm$ .83
	2. Your sexual partner is the one who makes the decision about contraception.	1-4	2.28 $\pm$ .69
	Total score	8-32	19.7 $\pm$ 0.99

**Contextual factors**

The majority (51%) answered that the appropriate age to first have sex was 18 years followed by the subjects who answered 22 years (18%) and 58.5% had a duration length one year or more with

their sexual partner. Concerning marriage plan, 75% have previously discussed marriage with their partner and a similar percentage (73.5%) have never been forced to have sex. The detail of contextual factors is presented in Table 4.

**Table 4:** Number and percentage of subjects categorized by contextual factors (n=200)

variables		number of subjects		percentage	
<b>Age that a woman should have first sex in Vietnam</b>		<b>Min = 15</b>	<b>Max = 24</b>	$\bar{X} = 19.15$	<b>SD = 1.94</b>
	18 years	102		51.0	
	22 years	36		18.0	
	Others	62		31	
<b>Duration of the relationship</b>		<b>Min= 1</b>	<b>Max=36</b>	$\bar{X}=11.45$	<b>SD=7.01</b>
	Less than 1 year	83		41.5	
	1 year or more	117		58.5	
<b>Ever discussed marriage</b>					
	Yes	150		75.0	
	No	50		25.0	
<b>Sexual coercion</b>					
	Yes	53		26.5	
	No	147		73.5	

**Discussion**

From this study, usage of contraceptives among subjects was very low. Only one-nine of the subjects used contraceptive regularly. A previous study in China also showed that 13% (n=306) of young women seeking abortion insisted on regular contraceptive use<sup>8</sup>. As found in many previous studies, the use of unreliable contraceptive method cannot prevent women from unwanted pregnancy which end

up in abortions<sup>8</sup>. This study showed that the subjects who always used contraceptive but they still get unwanted pregnancy because they used either unreliable or ineffective in preventing pregnancy. This highlights that without effective and reliable contraceptive method implementation it is improbable that the women can prevent themselves from unwanted pregnancy<sup>8</sup>. In this study, the three methods that subjects preferred were condoms, emergency contraception and periodic

abstinence. These 3 methods reflected that women think that it is not essential to use a method regularly. Several reasons can be explained for this issue as follows. First, the largest group of women in this study were living with their family (n=62, 31%), so, storing contraceptives at home might cause stress for unmarried young women. In fact, 54 out of 62 women in this study who were living with their family stated that they felt difficult to hide contraceptives at home without someone knows about it. Second, this study included unmarried young women, so, they might pursue out of control unplanned and irregular sexual activities<sup>4</sup>. In addition, the largest group of women who had had abortion had not used any contraceptives (17.5%), or use inconsistently (72%). This might be due to lack of contraceptive knowledge and lack of adequate contraceptive counselling services. At present, unmarried young women have inadequate knowledge about contraception because of the lack of education program or unqualified education at school or home. Moreover, due to social cultural barriers, unmarried young women do not feel comfortable when to access family planning services at health facilities. This can cause unmarried young women to get very limited information or incorrect knowledge from the sources outside school such as mass media or internet. Therefore, it is critical to improve and develop education programs on contraception among young women. Moreover, contraceptive counselling after having abortion should be provided to help women use contraceptives correctly and consistently to avoid a repeat of abortion. Counselling about contraception should include choices of reliable contraceptive methods, application, as well as benefits vs. side effects of each method. This information should also be integrated in the education programs in high schools to increase understanding of contraception among adolescents.

Results in this study suggested that although a high percentage of subjects have a high education level with nearly half having a diploma/associate or university education they had such a low level of perception regarding the risks of getting pregnant and they ignored the use of contraceptives or used them irregularly and ultimately had an unwanted pregnancy. Their misperceptions are results from inaccurate knowledge concerning about pregnancy and contraception as nearly half of subjects did not realize the risk of getting pregnant. This finding was concordant with other study<sup>7</sup> which reported that 51.3% of subjects agreed that because the last time they did not get pregnant when they had sex without contraception, so they do not think they are easily to get pregnant this time. The reason might be due to the sexual education programs that have been made available contain only some sexual health issues such as menstruation and physical organs. Thus, young women have limited access to knowledge about contraceptives and other sexual issues. As a result, when they engage in sexual intercourse they are indeed vulnerable to unwanted pregnancies. Accordingly, intervention to strengthen young women's perception about the risks of getting pregnant is very important to reduce unwanted pregnancy.

In the perceived benefits of using contraceptives, women's perception demonstrated only at the moderate level. This study showed that self-respect and self-control were the least important perceived benefits of using contraceptives. This implies that respondents do not care much about personal contraceptive benefits which might lead to involve passively in making decision of using contraceptives<sup>24</sup>. In Asian countries like Vietnam, a woman usually less concern about herself than their partner in the relationship with a man in terms of the feelings, benefits, etc. Moreover,

gender norms requires women's obedience which might put the women depend on the man in their sexual life<sup>25</sup>. Therefore, there is a need to include the aspects self-respect and self-control into sexuality education program concerning contraception in order to increase their perception to highly perceived benefits of using contraceptives.

Women's perception of the social acceptability of contraception among their sexual partners, parents and peers was found at average level. This study showed that the man is usually the one who makes the decision whether to use the contraceptives and which method is to be used. In fact, only condoms and the withdrawal method are the methods that women need cooperation from the male. The use of the rest of available contraceptives is totally up to the woman but male is usually the one who makes decision about the use of contraceptives including compliance and choices of method. Accordingly, a qualitative research with in-depth interview is recommended to explore why women need to seek approval from their partner. Moreover, efforts are needed to educate and encourage the man's involvement in using and supporting contraception with their girlfriend. This study has revealed that women perceived the least support from their parents. This is because parent-child communication about sexuality is uncommon in Vietnam. The parents feel uncomfortable or very uncomfortable discussing topics related to sexuality and relationships. Accordingly, there is also a need to design the interventions that offer reproductive health education including knowledge and communication skills to parents of young women, especially those parents living in the rural areas as they are likely to have low educational levels.

Perceived barriers of using contraceptives may be a major factor in the low level of contraceptive

use in this study. This could be explained as follows: Firstly, fear of side effects is the most important perceived barrier of using hormonal contraceptives. This finding was consistent with other study of Nguyen<sup>5</sup> which reported that 9 out 12 respondents mentioned about the side effects of the pill. This might be a reason why in this study only 2 women used pills as their choice for contraception. Secondly, since cultural difficulties and social disapproval of premarital sex exist women usually desire to keep their sex life confidential and conceal it from their families and friends completely. This is the reason why most of the subjects strongly agreed or agreed that going to the drug store to buy contraceptives is shameful as the women might worry of meeting a relative or an acquaintance at pharmacy<sup>24</sup> Accordingly, strategies to help women overcome the barriers are essential to increase effective contraceptive use. For example, a nurse can provide condoms/pills to adolescent at school to break barrier over shame to buy contraceptives at drug stores.

Regarding to contextual factors, respondents were asked "At what age do you think its appropriate for Vietnamese girl to have sex". It is very interesting that the high frequencies in subjects' answer is related to different educational levels in which 18 years old are the age that one can finish high school and enter into college education while 22 years old is the age that one can finish course at university level. In these situations, less parental control can be an important factor and provide more opportunities for them to have sexual activity with their boyfriend. As a result, sexual relations can easily initiate at this age. About duration of relationship, women who have been with their sexual partner for less than 1 year (42.1%) were more likely to reduce contraceptive use. Similar finding was found in Ford's study<sup>14</sup> which reported that the use of

contraceptives increased with the duration length of relationship. This can be due to the couple in a short relationship might be less likely to plan sexual intercourse and might not have prepared to use contraceptive methods<sup>15</sup>. Thus, a low rate of contraceptive use was found in this study. Concerning with marriage plan, about three-quarters of relationships had included discussion of marriage. This finding is in line with Manlove and colleagues' study<sup>15</sup> which found that 72.6% of subjects (n=4,014) sexually active women aged 18–26 years had discussed marriage. Discussions about marriage are often along with discussion about childbearing which may reduce contraceptive use<sup>15</sup>. In relation to sexual coercion, about 1 in 4 women reported having ever experienced non-voluntary in sexual intercourse. This result is similar to a finding of Abma's study<sup>16</sup> in which 1 in 5 women aged 15–44 years have been forced to have sexual intercourse. This finding, once again, confirms that Vietnamese women have limited control over sex and that they involve passively in sexual intercourse as well as decision making of contraceptive use. Thus, it is important to design intervention programs such as sexuality education to fostering and enhancing women's communication and negotiation skills.

### Limitation of the study

This study has some limitations. First, the subjects might not reveal their genuine perceptions since this topic is sensitive and young women might answer the questions based on social expectation. Second, this study was a cross-sectional descriptive study which represents one point of time and does not reflect possible changes in individual perceptions and behavior over time.

### Acknowledgement

Researcher would like to express sincerely thanks to Faculty of Nursing, Khon Kean University, Thailand and National Obstetric Hospital for their support to this study. Especially, deeply thanks go to Assistant.Professor.Dr. Pakvilai Srisaeng for her help, kindness, thoughtfulness and encouragement during the years of my study. The researcher also thank to graduate school and the Centre of Research and Training on Gender and women's Health, Khon Kaen University for providing research funding to finish the study.

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