Sexual risk behavior and attitudes towards condom-use amongst university students in Bangkok, Thailand
-A quantitative study

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Sammanfattning

**Introduktion:** Sexuelt överförbara sjukdomar är ett av de stötsta hoten mot en normal reproduktion och sexuella hälsan, där den mest kända är HIV och AIDS. Epidemiologin i Thailand över de senaste decenierna visar en ökade prevalens av sexuellt överförbara sjukdomar. Den största orsaken till sjukdomar är ett resultat av sexuellt risk beteende och inkonsekvent kondomanvändande.

**Syfte:** Syftet med studien var att undersöka sexuelt risk beteende och attityder till kondomanvändande hos thailändska universitetsstudenter i Bangkok.

**Metod:** En deskriptiv tvärnittsstudie med kvantitativ metod användes i studien. Ett frågeformulär med 5 delar delades ut till 300 universitetsstudenter på två olika universitetet i Bangkok, Thailand. 269 deltagare fyllde i enkäten korrekt och 132 av dessa uppfyllde inklusionskriterierna.

**Resultat:** 132 deltagare uppgav att de hade haft samlag. 15 (11.4%) av dessa hade ett lågt riskbeteende, 97 (73.5%) hade ett normalt riskbeteende och 20 (15.2%) hade ett högt riskbeteende. De fanns ingen signifikant skillnad mellan manliga (n=97) och kvinnliga (n=35) deltagare gällande deras sexuella risk beteende (p=0.68) och deras attityd till kondomanvändande (p=0.990). Ett samband mellan variablerna högt sexuellt riskbeteende och negativ attityd till kondomanvändande kunde ses, r=0.326, n= 132, p= 0.00.

**Slutsats:** Majoriteten av universitets studenterna i denna studie hade ett normalt riskbeteende. Attityden till kondomanvändande var till största delen positiv med undantag gällande enstaka frågor. Vidare studier gällande thailändska universitetsstudenter och deras sexuella hälsa är av största vikt för att vidare minska riskbeteendet och sexuellt överförbara sjukdomar i populationen.

**Nyckelord:** Sexuellt riskbeteende, kondom, attityd, unga vuxna, Thailand
Abstract

Introduction: One of the largest threats towards normal reproduction and sexual health is sexual transmitted diseases, were the most known is HIV and AIDS. The epidemiology of Thailand shows that over the last two decades several surveys reports an increase in the young adults' STD prevalence. The infections are mostly gained as a result of sexual risk behaviors and inconsistent condom use.

AIM: The aim was to investigate sexual risk behavior and attitudes to condom use among Thailand university students in Bangkok.

Method: The design used in this study was a descriptive cross-sectional quantitative method. A single five part questionnaire was handed out to 300 students within two different universities in Bangkok, Thailand. 269 participants completed the questionnaire and 132 of them met the inclusion criteria.

Result: 132 participants reported having had sexual intercourse. 15 (11.4%) had a low risk behavior, 97 (73.5%) had an average risk behavior and 20 (15.2%) had a high risk behavior. There were no significant difference between male (n=97) and female (n=35) participants regarding sexual risk behavior (p= 0.68) and their attitudes towards condom-use (p= 0.990). A correlation between the two variables high sexual risk behavior and negative attitudes towards condom-use could be seen, r=0.326, n= 132, p= 0.00.

Conclusions: The majority of the university students in our study showed an average risk behavior. The attitudes towards condoms were mostly positive with the exceptions of some specific questions. Further studies about Thai university students regarding sexual health is of importance to further decrease the sexual risks and STDs in the population.

Keywords: Sexual risk behavior, condom, attitudes, young adults, Thailand
TABLE OF CONTENTS:

1. BACKGROUND ............................................................................................................................ 1
   1.1 Sexual Health ...................................................................................................................... 1
      1.1.1 Definition of Sexual Health ......................................................................................... 1
      1.1.2 Sexual health and the nurse's role ............................................................................ 1
   1.2 Sexual transmitted diseases .................................................................................................. 2
   1.3 Sexual norms in Thailand ...................................................................................................... 2
   1.4 Health-care centers' influences on sexual health in Thailand ............................................. 3
   1.5 Self-efficacy ......................................................................................................................... 4
   1.6 Sexual risk behavior ............................................................................................................. 5
      1.6.1 Definition of sexual risk behavior .............................................................................. 6
      1.6.2 Sexual risk behavior in the world ............................................................................... 6
      1.6.3 Sexual risk behavior in Thailand ............................................................................... 7
   1.7 Condoms ............................................................................................................................... 9
      1.7.1 Condom use ................................................................................................................. 9
      1.7.2 Attitudes towards condoms in the world ................................................................... 10
      1.7.3 Attitudes towards condoms in Thailand .................................................................... 10

2. THEORETICAL FRAMEWORK ............................................................................................... 11

3. RATIONALE OF RESEARCH ................................................................................................ 13

4. AIM ............................................................................................................................................... 14

5. RESEARCH QUESTIONS .......................................................................................................... 14

6. METHOD ..................................................................................................................................... 15
   6.1 Research Design .................................................................................................................. 15
   6.2 Settings .................................................................................................................................. 16
1. BACKGROUND

1.1 Sexual Health

According to the World Health Organization (WHO, 2006) sexual health can not be defined or understood without initially understanding the term sexuality. Sexuality is a fundamental part of human life. It affects and manifest itself through human life and is the structure on which sexual health is based. Sexuality is dependent on and maintained through human rights. Certain human rights have a heavy impact on sexuality and therefore needs to be respected when explicating the subject. All humans have the rights to equality and non-discrimination, as well as freedom of opinion and expression. Such rights, among others, influences sexuality which therefore influences sexual health. WHO describes such influence as “…the interaction of biological, psychological, social, economic, political, cultural, legal, historical, religious and spiritual factors.”. Only a harmony between these factors can create a good sexual health (WHO, 2006).

1.1.1 Definition of sexual health

Hulter (2004)* describes sexual health as “... a state of physical, emotional, mental and social well being in relation to the individual’s sexuality and not only absence of sickness, dysfunction or weakness. Sexual health requires a positive and respectful approach to sexuality and sexual relations, such as the possibility of pleasurable and safe sexual experiences free from oppression, discrimination and violence. To reach and sustained sexual health all people’s sexual rights have to be respected, protected and fulfilled.” *(s. 270).

1.1.2 Sexual health and the nurse's role

Reproduction and sexual health is an essential nursing area within a country’s health care, where nurses have a significant role. Three out of the eight of the UN:S international Millennium Development Goals are about sexuality. These goals includes the promotion of gender equality and
empowerment of women, improvement of maternal health and combat towards HIV/AIDS, malaria and other diseases (World Health Organization, 2015). Even if this is the case many nurses don't seem to educate their patients in sexual health, despite the needs (Sundbäck, 2013). The nurses can support humans sexual health and life quality through professional nursing and through individual counseling (Hulter, 2009). Problems with sexual health often leads to problems with the health in general, therefore sexual health care is important to improve quality of life and to avoid illness and distress. One significant role for the nurses is therefore to support sexual health. Even though nurses and nursing students are aware of their role regarding sexual health care their preparedness and willingness to act is insufficient. The sexual health is a crucial component in holistic nursing practice, which has sadly been overlooked within the nursing health-care (Sung, Haung & Lin, 2015).

1.2 Sexual transmitted diseases

One of the biggest threats towards normal reproduction and sexual health is sexual transmitted diseases, were the most known is HIV and AIDS (Sylvan & Christenson, 2008). According to The joint United Nations programme on HIV/AIDS (UNAIDS) (2014a) the overall spreading of HIV in Thailand have been decreasing over the last 4 years. After the 2011 United Nations General Assembly in New York, where the plan for global HIV-protection was established, Thailand has been working on a model for stopping the spread of HIV as well as reducing other sexually transferred infections by the year of 2030. This model have foremost been focusing on advertising and sending out condoms amongst the population, focusing on the more exposed groups such as youth, sex workers and male homosexuals. The number of infected has since been decreasing on most parts, with the exception of people between the ages of 18-25, where both the knowledge and usage of condoms still are significantly low (UNAIDS, 2014a). Between data collected in Thailand in 2008-2009 and 2010-2011 a significant difference can be seen. There is a decrease in HIV
knowledge and an increase of people with multiple sex partners (Avert, 2012). Data suggest that rates of HIV and other Sexual transmitted diseases (STDs), due to this increase of sexual partners, are on the rise. For continued reductions in HIV prevalence nationwide, UNICEF states that more young people need to be fully addressed (UNICEF, 2010).

1.3 Sexual norms in Thailand

More liberal opinions regarding sexuality have been an effect after changes in the economy and culture in Thailand, particularly amongst young adults. These cultural changes have created a conflict between the more traditional values in Thai culture and the young adults (Vuttanont, Greenhalgh, Griffin, & Boynton, 2006). Younger generations have been exposed to the modern changes in their society due to the social norms, internet and mass media. This modern development has created an increase of sexual triggers in the everyday life. According to Tangmun Kongvorakul, Kane and Wellings (2005) these triggers are leading towards an escalation in sexual freedom which establishes new risks and habits regarding sexual behavior and attitudes. A “double standard” of sexual norms has been noticed as a result of a study done in Thailand during 2013. This study shows that men are sexually active earlier than women, have more lenient attitudes towards sex trade as well as multiple sexual partnerships and are more commonly engaged towards casual and commercial sex. The attitudes and acceptance towards premarital sex were also higher for adolescent and middle-aged men than for adolescent and middle-aged women. The attitudes towards unmarried woman’s sexual activities have despite of this resulted in these women being stigmatized and discouraged to seek contraceptives, sexual and reproductive health information and services. For these reasons women therefor having a higher sexual risk behavior and an increased risk of getting STDs (Techasrivichien et al, 2013).
1.4 Health-care centers' influences on sexual health in Thailand

Health-care centers are one sector that is involved in improving sexual health and have an important role in helping people make healthy decisions regarding their sexual habits by giving evidence-based information and care. It is therefore essential for the public health that sexual health care is free from discrimination, stigma and gender bias. (WHO, 2010). According to Tangmunkongvorakul et al., (2012) only one out of nine young adults in northern Thailand ever visited a health-care facility regarding their reproductive and sexual health, with women visiting the facilities more frequently than men. The study also found that there were a difference in the personnel’s attitudes towards female and male adolescents regarding their sexual activity. Even though the health-care providers showed negate towards unmarried young people in general, females were more likely to meet judgmental attitudes. Having sexual experience was more approved for in men and the negative effects, such as diseases, were easier accepted and excused. In contrast sexually active young females were treated with attitudes that classified them as "immoral" and as "bad girls" and the health-care provider seemed unwilling to provide care for them. This have resulted in that young girls seeks help at smaller private clinics and hospitals where they could be anonymous and avoid all judgment. The ones who does not afford private clinics were thus often committed to other ways of treatment. As a result of this in combination with the open accessibility of drugs in Thailand the self-treatment became the easiest, but more riskier and less effective way of treatment (Tangmunkongvorakul et al., 2012).

1.5 Self-efficacy

A prerequisite to change behavior is knowledge and necessary resources. But the individuals also have to believe that they can achieve a change with their own action otherwise the motivation of making a change will be low and the change are not going to be sustainable in the face of obstacles. Self- Efficacy, your belief in your own ability to change
source, 2012), influences the way a person will make the change, how much effort the person will put in to the change, how the individual will handle obstacles on the way and the level of accomplishment the change will give. An individual may have the knowledge on HIV and the skills to use a condom but if the self-efficacy is low the individual may still engage in unprotected intercourse (Sung et al., 2015). To approach self-efficacy has been a recognized way of changing unhealthy behaviors. It can be used as health promotion with a broad range to young adults. Young adults need knowledge and motivation to change a specific behavior in addition to that they also need a self capacity and ability to implement the task and achieve their goal. Increased levels of self-efficacy will lead to improved outcomes regarding young adults and sexual health. Improved outcomes will reduce the number of occurring STDs. Nurses have the function to educate young adults so a positive change can be made (Jenkins, 2015). The natural way of achieving self-efficacy are on the other hand through the concept of fear. A individual with a high risk behavior will at some point realize that the threat of falling into harm's way will be perceived as so high that their self-efficacy will naturally rise and protective measures will emerge. This protective system is prescribed in the Protection motivation Theory (PMT) and is a common secondary way of achieving self-efficacy. The problem however is if the individual in some cases can react in the opposite way and start avoiding and ignore the subject as a protective measure and therefore enhance the problem. It is when the fear is combined with adequate help that the outcome of high self-efficacy is the most successful (Consumer health informatics research source, 2012).

1.6 Sexual risk behavior

The definition of young adulthood is characterized as a transition towards a more emotional, physical and psychological demanding state of mind and type of lifestyle. This stage in life circulates around intimate relationships with high sexual implementations. The result of this transition shows an increase in sexual transmitted infections (STIs), as well as unwanted
pregnancies due to the individual's emerging sexual high risk behavior (Aramrattana et al., 2008).

### 1.6.1 Definition of sexual risk behavior

The epidemiology of Thailand shows that over the last two decades several surveys reports an increase in the young adults' STI prevalence. (Aramrattana et al., 2008) The infections are mostly gained as a result of sexual risk behaviors. Sexual risk behaviors consist of the following but are not limited to: lack of barrier during penetrative intercourse, lack of sexual refusal when condoms aren't accessible or the partner don't want to use it, using alcohol or other drugs before sexual intercourse, or not being aware of the partner's sexual history before the intercourse. These are however only identified as high-risk behaviors as long as it isn’t in a single-partner long-term relationship. Adolescents and young adults are currently at most risk to encounter the issue of STI's (Sadovszky, Draudt & Boch, 2014).

### 1.6.2 Sexual risk behavior in the world

In the United states large groups of young people engage in sexual risk behavior. Centers for Disease Control and Prevention (2013) shows that 41 % of the American youth did not use a condom the last time they had sexual intercourse. Around 10,000 young people between the ages of 13-24 were diagnosed with HIV infection during 2013 in USA. Every year around 20 million Americans get STDs and half of them are 15-24 years old. In China a study done with college students showed that condoms was used irregularly. 24.7 % used condoms every time they had sex, 23.9 % used condoms often but not always and 17.9 % never used condoms during intercourse. Almost half of the students did not use a condom during their last sexual intercourse (Xinying, Xianona, Yuhui, Yangling, Peiyu & Chun, 2013). In Taiwan sexual risk behaviors were also reported. 277 of the 996 respondents had ever had a sexual intercourse. 82.3 % of those had used a condom at least once to protect themselves from STDs. 31.4 % used condoms consistently. The
study also showed that men were 5 times more likely to use a condom to prevent STDs than women. The result in the study indicate that only one third of the sexual active participants routinely practiced safe sex (Tung, Cook & Lu 2011).

In a study done in Ireland 86% of the participating students reported having oral sex without using a condom. 69 % reported having vaginal sex without a condom and 19% reported having unprotected anal sex in the last 24 months. There were different reasons for not using a condom, the most common answer was however usage of other types of contraceptives. 20.5% stated that alcohol or other drugs had resulted in an increase of risk behavior. 19.5% reported that they did not have access to condoms during the sexual activity (Lally et al, 2015). In a study done in Brazil those who engaged in anal sex regularly had a lower percentage of condom use during vaginal sex (32.5%), in difference to those who never had anal sex (70.7%). Male students used condoms more often than female students during anal sex (Castanet, Linhares, Pinotti, Maggio de Fonseca, Wojitani & Giraldo, 2010).

1.6.3 Sexual risk behavior in Thailand

A study by Sirirassamee and Siriassamee (2013) that was investigated the sexual behavior of 938 persons of the youth population of Thailand. It showed that 36.2 % of the respondents had an active sex life and also had multiple sex partners. 54.3 % of the respondents used a condom during their last sexual act and 12.7% had not used any contraceptives during their last intercourse. The study further showed that the male respondents had a higher prevalence than the female respondents regarding having multiple sexual partners. In spite of this the males had a higher prevalence of using a condom. Not using any contraceptives was thus higher among females.

Another study by Techasrivichien et al. (2013) also shows that Thai men and women nowadays are
having their sexual debut at a younger age and therefore have a higher number of sexual partners in contrast to the older generations.

According to a literature review study done in Chiang Mai, Thailand (Aramrattana et al., 2008) data from different military recruits in 1991 shows that an average 21-year-old male population at this time have a history with 29.2% gonorrhea, 7.0 syphilis and 9.2% nongonococcal urethritis. 19.2% of the participants also showed a history of a consistent diagnosis of chancroid. The majority of the population reported that they were infected due to commercial sex and/or inconsistent condom use. According to Aramrattana et al. (2008), they found a high prevalence of methamphetamine (MA) usage as an important factor for high sexual risk behavior. The study also noticed that increase of MA in Southeast Asia, especially Thailand during the last two decades have been defined as an epidemic rise. Some differences were seen between genders regarding drug-use and sexual risk behavior. Men were more likely to use MA as well as other type of drugs. They also reported a higher number of sexual partners within the last year (>2 heterosexual partners) as well as a higher percentage of condom use than women. Women on the other hand had a higher number of same-sex experiences, but a lower number of sexual partners and a lower habit regarding usage of condoms. Both genders showed that drugs were a direct cause to lack of condom-use. Young adults over the age of 20 showed a higher sexual risk behavior due to their increase of number of lifetime sexual partners, compared to their adolescent counterparts. The development over the last two decades is however interesting. In 1990 the study highlights that 13% of the women and 23% of the men within the age of 15 to 19 where sexually experienced. In 1999 15- to 21-year-olds within the same area, now instead showed that 43% of the women and 48% of the men were sexually active. This indicates an earlier age of sexual activity, with an increase of lifetime sexual partners before the age of 21 (Aramrattana et al., 2008).
Aramrattana et al. (2008) indicates that the increase of sexual partners at an early age, the increase of drug-usage, as well as the lack of condom-use among the young adults points towards a possible epidemic outbreak. If STD's such as HIV where to infiltrate this population, this could return as a public health problem in Thailand. According to these studies more preventive actions and interventions are needed, as well as further documentation of this epidemic problem (Aramrattana et al., 2008; Sirirassamee & Siriassamee, 2013; Techasrivichien et al., 2013).

1.7 Condoms

Highly effective ways of preventing sexual transmitted diseases, such as HIV, are condom-use and long-term monogamous relationships. Condoms are ordinarily made of latex and works as a protective barrier against both urethral and vaginal secretion. To reach the maximum protection condoms needs to be used both correct and consistently. One single unprotected intercourse can be enough to infect a person with an STD. It is therefore important to always keep the consistency. If condoms are used equitable it significantly reduces all risks during vaginal and anal sex (Centers for Decease Control and Prevention, 2013).

1.7.1 Condom-use

Condoms have had an important impact on the HIV epidemics globally. Even though progress has been made towards prevention of HIV, decreasing levels of condom use within a country, still causes the HIV-epidemic to erupt. Condoms with sustainable evidence on reducing sexual transmitted infections are therefore an important public health investment. Condoms-use amongst the population are thus crucial for countries to be able to reach the millennium development goal (UNAIDS, 2014a). To reduce sexual risk behavior and promote safer sex, condom-use behavioral interventions are essential for a positive health outcome. The evidence indicates that these interventions are adequate, promotes safer sex and reduces sexual transmitted diseases. The
interventions also have a wide range regarding other sexual health outcomes. They increased the sexual communication, initiates safer sex intentions, STI knowledge as well as self-efficacy. They also reduced the frequency of intercourse, sexual partners and postpones the first intercourse (Sadovszky et al, 2014).

1.7.2 Attitude towards condoms in the world

A study done in Brazil showed that the most common reason for not using a condom during vaginal sex was trust towards the partner (28.6%), other contraceptives (21.6%), decrease of sensitivity (12.6%), not having condom at the time of the sexual intercourse (10.7%) and feeling uncomfortable with their use (8.5%) (Caetano et al, 2010). In another study done in Ireland, 82.2 % of the participants declared that having sex without using a condom was irresponsible. Those students who use condoms did so as their prime method of contraception (33 %). The remaining participants answered that condoms were used as a backup method of contraception (32 %) and/or to prevent transmission of STDs (35 %). The students who didn't use condoms did it because of confidence in other methods (70.6%), enthusiasm within the moment (43.6%) or due to alcohol or drugs (20,5%). There was a recognizable difference between female (7.5%) and male (13%) students regarding the trend of alcohol affecting the attitude towards condom use (Lally et al., 2015).

1.7.3 Attitude towards condoms in Thailand

A Study done by Haque & Soothorndhada (2009) in Kanchanaburi, Thailand shows that half of the participants uses condoms to prevent pregnancy and 4 out of 10 as protection against STDs and HIV. The respondents did not however prefer to use condoms with their wife. They responded that condoms should foremost be used by sex workers. The ones that did use condoms obtained them through a drugstore.
In another study by Thato, Charron-Prochownik, Dorn, Albrecht and Stone (2003) with Vocational students from Thailand half of the participants stated that they did not use condoms, but use other methods to protect themselves. The majority of the students only used condoms to prevent pregnancies (86.3 %). Almost one of four (23.9%) did not use condoms because they saw no risk in becoming pregnant and 27.3% did not protect themselves because they did not see any risks of getting HIV or a STDs. Usage of condoms was thus higher among the younger participants due to less alcohol-consumption. Also female students reported lower condom-usage than male students. The low interest in condom-use was according to the participants due to the fact that in Thai culture requesting use of condoms or contraceptives are not a appropriate behavior, because it implies being sexually active. It was therefore a risk to ask a partner to use a condom at the beginning of a relationship since it may imply a distrust towards that person.

2. THEORETICAL FRAMEWORK

Health belief Model (HBM) was used as the theoretical framework of this study (Glanz, Rimer & Lewis, 2002). The definition of this model is based on people’s estimation of a condition and its affecting factors, as well as people’s own opinions and attitudes towards it. HBM is specially outfitted towards surveys such as this one and has a reliable history when it comes to quantitative-focused studies. The model is divided into six steps. Each step describes what could influence a person’s attitude towards a health-care related action and how to, from a health-care provider’s perspective, approach that situation. The Perceived Susceptibility-faze explains the risk-taking and analyzing feelings towards the decease, where the person estimates if he or she is at risk. Later follows the Perceived Severity. The opinion is here established of how serious the condition is perceived and what the consequences might be. The third step is Perceived Benefits, where the efficacy of different preventive actions is being considered which transfers over to Perceived
Barriers. This phase measures the psychological and practical costs of the different options. Lastly, Cues to Action and Self-Efficacy describe the two parts where the knowledge-seeking and confidence to take action begins. Here the person’s confidence towards their ability to take action has developed (cues to action) and due to the new exposing factors the person has now begun to take action and starts to successfully realize and notice the positive effects of these (self-efficacy). This mindset is now their new point of view and if any new change would begin to take place the same steps through the HBM-cycle would have to be repeated.

The HBM (Glanz et al., 2002) describes that for a person to consider taking a preventive action, one needs to feel a high enough risk justifying their behavior and motivation to change. In other words the realization that their lack of action would in some way be dangerous. For example realizing that not using a condom during intercourse could result in a STD. To be able to prevent risks that might give the person get STDs, knowledge is an important factor. That is why knowledge is one important step in the HBM (Glanz et al., 2002). If the students have low knowledge about STDs this might be a factor that leads to a high sexual risk behavior. In order to get the person to take actions towards a safe sex behavior, the person needs to be informed about the risks the person are taking while not having safe sex. One part of this could be which diseases unsafe sex may lead to. The students also need to know what factors that are reducing the risk. For example, a person who knows condoms protects against STDs have more motivation to use a condom and will therefore take action to buy and use a condom. This is the last step of the HBM (Glanz et al., 2002).

The HBM model may be affected by individuals attitudes towards condom-use. For example negative attitudes or stigmas towards obtaining or buying condoms may lead to higher sexual risk behavior. This study aims to find if there are any relation between taking sexual risks and negative attitude towards condom-use. To be able to finish the HBM-cycle one needs to experience all the
steps in the HBM and negative attitudes towards condoms could lead to an inadequate HBM- cycle and high sexual risk behavior.

When using the HBM in relation to condom-use, there are certain affecting factors that needs to be considered. According to Haque and Soonthorndhada (2009) there are three sets of important factors. Sociodemographic factors include demographic characteristics, such as a person’s age, sex and civil status and affect the influence and bias around the subject of condom-use. Even social structures like education, occupation and salary have an important part regarding to a person's attitude towards buying or obtaining condoms. An individual's access to mass-media and substances is the last set of factors. The accessibility to information and advertisement through TV, radio and computers affects the person’s knowledge and awareness of condoms. This can also be related to the social structure where a person with a low income may not be able to afford a computer or TV and therefore not be informed enough or have the priorities to buy condoms. Different social interactions with friends in combination of substance-use, such as alcohol or drugs, reduce the person’s judgment and could also affect the attitude and preference towards condoms. Due to the fact that buying sex is common among men in Thailand the last affecting factor also includes risk perception. Weather a person thinks it’s worth using condoms to lower the risk of getting an STD (Haque & Soonthorndhada, 2009).

3. RATIONALE OF RESEARCH

Despite great effort to focus on prevention of sexual risk behavior in Thailand (Sirirassamee & Siriassamee, 2013; Techasrivichien et al., 2013). Several studies have shown that young adults still take risks regarding their sexual activities. High sexual risk behavior increases the risk of sexual transmitted diseases such as HIV. This affects both the individual as well as the public health (WHO, 2010). One way to prevent HIV is condom use (UNAIDS, 2014b). The nurse has an
significant role regarding preventive work towards good sexual health. One part of the nurse's profession is to inform and educate people about sex, condoms and STDs (Sundbeck, 2013). This study focuses on the attitudes towards condoms among university student that may effect on an individual or personal level, to be able to direct nurse’s sexual health service in the right direction. The sexual risk behavior is investigated to observe if there is a connection between sexual risk behavior and students’ attitudes towards condom use. The relation between sexual risk behavior and attitudes towards condom use has not yet been studied in Thailand. Therefore, it is important to investigate safe sex and condom use among university students at the age of 18-25 years old in order to contribute a new perspective. The results of this study will be used to increase knowledge of nurses or healthcare personal to be aware of the students’ sexual behaviors and also to prepare an intervention program to promote safe sex and condom use among the young people.

4. AIM

The aim was to investigate sexual risk behavior and attitudes to condom use among Thailand university students in Bangkok.

5. RESEARCH QUESTIONS

What are the sexual risk behaviors and attitudes towards condom use among university students in Thailand?

Is there a relationship between sexual risk behaviors and attitude towards condom use among these students?

Is there a difference between women and men regarding sexual risk behavior and attitudes towards condom use?
6. METHOD

6.1 Design

The design used in this study was a descriptive cross-sectional quantitative method (Healthknowledge, 2009).

6.2 Settings

This study was conducted in Bangkok, Thailand. Thailand is located in Southeast Asia and have the total area of 513,120 sq km. It’s population is around 68 million people and consist of 95.9% Thai originated citizens. Buddhism is the largest religion with 93.6% of the total population being official buddhists and islam being the second largest with 4.9%. (Central intelligence agency, 2015). Bangkok is the country’s capital and largest city by far. It is located near the center of Thailand and has a population of 8.5 million citizens (World Population Review, 2015). The capital is seen as the center of Thailand with the highest financial and political impact. 22% of the entire population of Thailand is located in the metropolitan region of Bangkok, which correspond to around 14 million people. The city have a large amount of commutes from different countries, with millions of people traveling through the city area every day. In 2010 the amount of people registered as local resident was estimated to only 5.7 million people of the 8.7 million living within the capital (World Population Review, 2015). Bangkok also have Thailand’s most highest ranked Universities (Central intelligence agency, 2015), making it a popular destination for students from all over the country.

This study was done at two different universities in Bangkok, located at various areas within the city and with different variants of education. They were chosen due to their variety of students, type of teaching and educational orientation. Due to ethical considerations, nothing more can be shared
about the specific setting of this study.

6.3 Sample

The sampling of this study was a strategic sample, based on evidence-based risk groups from previous research. The inclusion criteria in the study were University students in Bangkok (1), aged 18-26 (2), willing to participate (3), having had sexual intercourse (4), to have completed the questionnaire (5) and having a total sum of all points in SSBQ to be >0 (6).

A total of 300 questionnaires was distributed. The non-respondents were a total of 2. Out of the remaining participants 132 met the inclusion criterias. The collected sample consisted of 97 eligible men and 35 eligible women. 29 of the participants did not meet the inclusion criteria and were therefore excluded from the sample. 137 participants had not had sexual intercourse, but still completed the questionnaire and were presented as descriptive data.

6.4 Data collection

The questionnaire (Appendix A) is a combined questionnaire of two different thesis groups. It consists of 56 questions and has been divided into five parts. In this study only three of the parts were used, part one, four and five. The remaining parts were used in another study. The first part is a demographic overview, the fourth part is about sexual risk behavior and the fifth part is about attitudes towards condom use.

The first part of the questionnaire is a demographic overview with questions about gender, age, school year, religion, relationship status, sexual status, extra job and living situation.

The fourth part of the questionnaire SSBQ (Safe Sex behavior Questionnaire) is a validated questionnaire used in earlier studies in the same area. SSBQ was designed to measure HIV-related sexual risk behaviors (Fitzpatrick & Kazer, 2012). This part is an ordinal scale and the questions are
about sexual risk behaviors. There are 4 different answers “never”, “sometimes”, “most of the
time”, “always”. The SSBQ has been converted to suit the Thailand culture (Kuysuwan,
Supparerkchaisakul, Chuawanlee & Intarakamhang, 2013). A new alternative has been added to the
SSBQ where the participants could answer they never engaged in the activity asked of in the
question. For example, when the second question of the questionnaire asks “I insist on condom use
when I have sexual intercourse”, the participants could answer that they never had sex. Regarding
other types of questions they could also answer that they never used drugs, never had oral sex or
never had anal sex.

The fifth part of the questionnaire is inspired of *on Illustrative Questionnaire for Interview Surveys
with Young People* by John Cleland, from WHO (2001) and focus on the participant’s attitudes
towards condom use. The scale is an ordinal scale. The participants can answer from “Strongly
agree” to “Strongly disagree”. Attitudes in this study will focus on factors that may affect the use of
condom such as buy, obtain and usage of condoms.

The questionnaire was translated from English in to Thai by our co-supervisors, Assistant Professor,
Dr. Wantana Maneesriwongkul and Assistant Professor Supunnee Thrakul, Ramathibodi School of
Nursing, Faculty of Medicine at Mahidol University.

**6.5 Procedure**

The study was an interaction between the Department of Public Health and Caring Sciences at
Uppsala University, Sweden and Ramathibodi School of Nursing, Faculty of Medicine,
Ramathibodi Hospital, at Mahidol University. The study was executed through the scholarship of
Minor Field Studies (MFS) at two Universities in Bangkok, Thailand. No data collection was
executed at Mahidol University. A ethical inquiry was sent to the Ethical Committee Faculty of
Medicine Ramathibodi Hospital in Bangkok by our co-supervisor Dr. Wantana Maneesriwongkul and was approved (Appendix B) before the implementation of this study.

The questionnaires were handed out to the participants in their lecture hall during school hour with the help of their educator. The students were informed about the reason for doing the study, that their participation were voluntary and were given instructions on how to answer the questionnaire correctly. They were informed in both English and Thai. A information letter (Appendix C) written in english was also included in the questionnaire. The participants were encouraged to talk to the authors if they had any questions or thoughts about the study. Due to the sensitivity regarding the data of this study all participants also had to sign an informed consent that was collected simultaneously with the questionnaires. The informed consent was thus immediately separated from the questionnaires and put in a separate area, to keep the anonymity. The data sample was stored at the Ramathibodi School of Nursing. All of the further data analysis was performed at this location to ensure that the sample was kept safe and were handled correctly.

6.6 Ethical considerations

This study was a part of a project of the co-supervisors Dr. Wantana Maneesriwongkul and Suprunnee Thakul, at Mahidol University, in Thailand. An application to the Ethical Committee Faculty of Medicine Ramathibodi Hospital, Mahidol University in Thailand were sent in and approved before the implementation of the study (Appedix B).

All participants was initially given both verbal as well as written information about the purpose of the study in form of an information letter (Appendix C). The information letter followed the guidelines from The Ethical Guidelines for Research on Human Subject in Thailand (2007), EPN (2013) and CODEX (2015).
The survey included sensitive questions that could have affected the outcome. One factor was the risk of a lower response rate. The reason could have been that the participants were afraid that the information may reach a third part or that their anonymity were at risk. If the respondents agreed to participate in the questionnaire they were therefore given the option to decline to answer sensitive questions. The accuracy of the answers could have, despite of this, been a problem since the participants may not have answered the questions truthfully (Tourangeau & Yan, 2007).

This study aimed to provide knowledge about Thai student’s sexual risk behavior. That knowledge could have affected the individual protection requirement (Vetenskapligarådet, Y.u) and therefore also the participants in a negative way. The questions could have led to discomfort and doubt during the answering of the questionnaire. The authors did not however believe that the study would lead to any long term psychological damages. The only negative effects expected were discomfort or trust issues towards the authors.

The authors believed that the study could contribute to new knowledge within the research area that could help to improve the sexual health of young adults in Thailand. After careful consideration the authors assessed that the contribution of this study would outweigh the potential negative effects (Vetenskapligarådet, Y.u). If any of the participants had any opinions or questions about the questionnaire they were given contact information to both the authors and co-supervisors.

All the participants filled out an informed consent before taking part of the study. The participant were also initially fully informed of their rights concerning their decision making. All participants were able to withdraw their consent at any time and without having to give any reason. The participants were also informed that their participation would be completely anonymous. For
maintaining the anonymity the informed consent was removed from the questionnaire immediately when the questionnaire were collected and all answers were sealed as soon as the participants returned their questionnaire (CODEX, 2015).

This project followed three general principles: respect for a person, principle of benefice and principle of justice (The Ethical Guidelines for Research on Human Subject in Thailand, 2007). The principle of respect for a person includes the following: respect for human dignity, respect for freely given informed consent, respect for privacy and confidentiality. The principle of beneficence covers the following parts: balance between risks and benefits, minimizing harm, maximizing benefits. The principle of justice includes fairness and equity, that the participants of the research shall be entitled to any direct benefits from the research and without any neglect or discrimination.

This study aimed to follow The Ethical Guidelines for Research on Human Subject in Thailand (2007). It is according to these guidelines a risk that participants may be forced to participate in a study due to the hierarchy within the institution. The students may feel like they have to obey the corresponding authorities. When recruiting these students into a study, it was therefore necessary that they were well-informed and were given the opportunity to make their own decisions without any interference from the higher authority.

To protect the universities from bad critic or bad reputation, if the results were in any way inconvenient or not following the Thai culture, none of the universities will be named or described in this study, thus it might lead to stigmatization, injustice or discrimination.

6.7 Data analysis

In this study the Statistical Package for the Social Sciences, SPSS 21.0, was used to analyse the
collected data. The data in the first part was demographic characteristic and based on nominal scale. Each questionnaire was coded into id-numbers in SPSS and registred into the SPSS using descriptive statistics (Polit & Beck, 2012). Part 4 and 5 are in ordinal scale.

The questions from part 4 was scored from 0 to 4 depending on the negative attribute. The data were initially coded in SPSS as always (1), most of the time (2), sometimes (3) and never (4). At the beginning of the data analysis the question with the most negative attribute consequently the most risky sexual behaviour was given the highest number. If the answer “never” were the most negative attribute in the question the score will be coded as always (1), most of the time (2), sometimes (3) and never (4). If “always” was the most negative attribute in the question the answers was recoded and the order changed to the following; always (4), most of the time (3), sometimes (2) and never (1). The answers Never had sex, never used drugs, never had oral sex and never had anal sex was however always given 0 points.

For part 5 the data was scored from 0 to 2 based on the participants negative attitude towards condom-use. During data entry the answers were initially coded in SPSS as Disagree (0), Don’t know/Not sure (1) and Agree (2). Each answer was then divided into a score based on the negative variable. If the question had a negative attitude, such as “Condoms reduce sexual pleasure”, the score would be coded as: Disagree (0), Don’t know/Not sure (1) and Agree (2). If the question instead had a positive attitude, such as “I feel protected while using a condom”, the score would be recoded and changed to the following: Disagree (2), Don’t know/Not sure (1) and Agree (0).

The points from part 4 and 5 were then transformed and computed to a summarize for each part. The participants could get a minimum of 0 points and a maximum of 72 points in part 4 and a minimum of 0 points and maximum of 20 in part 5. A high score on each part indicates a high risk
behavior and a negative attitude towards condom-use. The sum from each part was then presented in SPSS as an own variable.

Sexual risk behaviour was after the analysis categorized as parametric data into three groups depending on the mean value (M=37.98 +/- 8.480). The different groups were then named into “low risk behavior”, “average risk behavior” and “high risk behavior”. A low risk was classified as getting a sum of 28 points or lower from the SSBQ, which also could be described as the points below the standard deviation (SD) from the mean value. The participants with points from 29-46 were classified with an average risk behavior. Which is the values between the lowest SD to the highest SD. Lastly the ones with the high risk behavior were classified as the questionnaires with a score higher than 47, which is the values higher than the highest SD. This method would make it possible to divide each person into their corresponding group. A person with, for example, 32 summarized points from the SSBQ would be categorized as a person with an average risk behavior, while a person with 52 points would be classified as a person with a high risk behavior.

This study used a Pearson's correlation test to analyze if there were any relationship between the sexual risk behavior and attitude towards condom-use. This part of the analysis focused on discovering any connection between an increased risk behavior and a high negative attitude towards condom-use. The p-value was set to 0.01 according to Pearson's correlation test.

A independent T-test was used to answer the third research question if there are any differences between gender regarding sexual risk behaviour and condom use. The p-value was set to 0.05 (Polit & Beck, 2012).
7.0 RESULTS

The collected samples of completed questionnaires were 269. 40.9% (n=110) were female and 59.1% (n=159) were male. The respondents aged range between 18-26 years. The most common age were 20 years old (32.3%, n=87). 37.2% (n=100) of the students were currently in a relationship. 49.1% (n=132) of the students have had sexual intercourse: 61% (n=97) of male and 31.8% (n=35) of female students have had sexual intercourse. See Table 1.

Table 1: Demographic characteristics of the participated university students.

<table>
<thead>
<tr>
<th>DEMOGRAPHIC CHARACTERISTICS</th>
<th>Total (n=269)</th>
<th>Male (n=159)</th>
<th>Female (n=110)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>13</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>19</td>
<td>75</td>
<td>27</td>
<td>48</td>
</tr>
<tr>
<td>20</td>
<td>87</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>21</td>
<td>68</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>22</td>
<td>11</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>8</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>24</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>25</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>159</td>
<td>100</td>
<td>110</td>
</tr>
<tr>
<td>Female</td>
<td>110</td>
<td>59.1%</td>
<td>40.9%</td>
</tr>
<tr>
<td>School Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>51</td>
<td>19.0%</td>
<td>10.6%</td>
</tr>
<tr>
<td>2</td>
<td>207</td>
<td>77.0%</td>
<td>86.8%</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>4.1%</td>
<td>4.1%</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non religion</td>
<td>2</td>
<td>0.7%</td>
<td>1%</td>
</tr>
<tr>
<td>Buddhist</td>
<td>258</td>
<td>95.9%</td>
<td>105%</td>
</tr>
<tr>
<td>Christian (Catholic)</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Christian (protestant)</td>
<td>3</td>
<td>1.1%</td>
<td>2%</td>
</tr>
<tr>
<td>Muslim</td>
<td>5</td>
<td>1.9%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.4%</td>
<td>0%</td>
</tr>
<tr>
<td>Extra job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>6.7%</td>
<td>10%</td>
</tr>
<tr>
<td>No</td>
<td>251</td>
<td>93.3%</td>
<td>90.9%</td>
</tr>
<tr>
<td>With whom do you live</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents/family</td>
<td>195</td>
<td>72.5%</td>
<td>75.5%</td>
</tr>
<tr>
<td>Friends</td>
<td>49</td>
<td>18.2%</td>
<td>22%</td>
</tr>
<tr>
<td>By myself</td>
<td>17</td>
<td>6.3%</td>
<td>9%</td>
</tr>
<tr>
<td>Other/others</td>
<td>8</td>
<td>3.0%</td>
<td>4%</td>
</tr>
<tr>
<td>Boyfriend/ Girlfriend</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currently have</td>
<td>100</td>
<td>37.2%</td>
<td>37%</td>
</tr>
<tr>
<td>Use to have</td>
<td>62</td>
<td>23.0%</td>
<td>20%</td>
</tr>
<tr>
<td>Age</td>
<td>107</td>
<td>39.8%</td>
<td>53%</td>
</tr>
<tr>
<td>Sexual intercourse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>132</td>
<td>49.1%</td>
<td>35%</td>
</tr>
<tr>
<td>No</td>
<td>137</td>
<td>50.9%</td>
<td>75%</td>
</tr>
</tbody>
</table>
7.1 Sexual risk behavior among the students.

The participants were able to get a score between 0-72, where 72 points indicated the highest risk behavior possible and 0 points the lowest. The mean value of the participants’ sum from safe sex behavior questionnaire (SSBQ) were 37.98 (SD = 8.48, Min = 10, Max = 57). The results showed that 11.4% (n=15) of the 132 participants who finished the SSBQ got a score below 28 points and were therefore classified with a low risk behavior. The majority (73.5%, n=97) of the students got a score between 29-46 points. They were classified as the group with an average risk behavior. 15.2% (n=20) of the students achieved the score of 47 or higher and were categorized as a high risk group.

The result from the SSBQ was based on the 132 participants who met all the inclusion criteria’s (Table 2). Out of those 132 students 50.8% (n=67) reported that they always insisted on condom-use during sexual intercourse. 21.2% (n=28) chose most of the time, 23.5% (n=31) answered sometimes and 3.8% (n=5) never insist on using a condom. Out of all of the students 49.2% (n=65) reported that they always carry a condom when there is a possibility for sex, 17.4% (n=23) chose most of the time, 13.6% (n=18) answered sometimes and 16.7% (n=22) would never bring a condom.

The participants were asked if they would refuse to have sexual intercourse with a partner who insisted on not using a condom. 27.3% (n=36) answered always, 16.7% (n=22) most of the time, 33.3% (n=44), sometimes and 20.5% (n=27) never. The participants were then asked if a person would stop foreplay long enough to put on a condom. 34.1% (n=45) answered always, 21.2% (n=28) most of the time, 21.2% (n=28) sometimes and 22% (n=29) never.

When asked about condom-use during different types of sexual intercourse the majority of the result showed a low sexual risk behavior. 85.6% (n=113) out of all of the participants always uses a
condom when engaging in anal intercourse, 3% (n=4) uses it most of the time, 0.8% (n=1) uses condoms sometimes and none of the participants answered never using a condom. 10.6% (n=14) had never engaged in anal intercourse. Regarding oral sex 44.7% (n=59) always uses a protective barrier during, 19.7% (n=26) uses it most of the time, 18.9% (n=25) sometimes and 9.1% (n=12) would never use protection. 7.6% (n=10) had never had oral sex.

Table 2: Safe sex among the university students

<table>
<thead>
<tr>
<th>Safe sex behavior questionnaire</th>
<th>Always</th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
<th>Never had</th>
</tr>
</thead>
<tbody>
<tr>
<td>I engage on sexual intercourse on first date</td>
<td>4</td>
<td>3.0</td>
<td>2</td>
<td>1.5</td>
<td>33</td>
</tr>
<tr>
<td>I insist of condom use when I have sexual intercourse</td>
<td>67</td>
<td>50.8</td>
<td>28</td>
<td>21.2</td>
<td>31</td>
</tr>
<tr>
<td>I stop foreplay long enough to put on a condom (or for my partner to put on a condom)</td>
<td>45</td>
<td>34.1</td>
<td>28</td>
<td>21.2</td>
<td>28</td>
</tr>
<tr>
<td>I avoid direct contact with sexual partners semen or vaginal secretion</td>
<td>34</td>
<td>25.8</td>
<td>22</td>
<td>16.7</td>
<td>39</td>
</tr>
<tr>
<td>I ask potential sex partners about their sexual history</td>
<td>34</td>
<td>25.8</td>
<td>18</td>
<td>13.6</td>
<td>46</td>
</tr>
<tr>
<td>I ask my potential sexual partners about a history of bisexual/homosexual practices.</td>
<td>12</td>
<td>9.1</td>
<td>11</td>
<td>8.3</td>
<td>25</td>
</tr>
<tr>
<td>I ask my potential sexual partners about a history of IV drug use.</td>
<td>23</td>
<td>17.4</td>
<td>3</td>
<td>2.3</td>
<td>16</td>
</tr>
<tr>
<td>I abstain from sexual intercourse when I do not know my partner's sexual history.</td>
<td>43</td>
<td>32.6</td>
<td>18</td>
<td>13.6</td>
<td>34</td>
</tr>
<tr>
<td>If I know an encounter may lead to sexual intercourse, I carry a condom with me.</td>
<td>65</td>
<td>49.2</td>
<td>23</td>
<td>17.4</td>
<td>18</td>
</tr>
<tr>
<td>If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex.</td>
<td>65</td>
<td>49.2</td>
<td>29</td>
<td>22.0</td>
<td>19</td>
</tr>
<tr>
<td>If I disagree with information that my partner presents on safer sex practices, I state my point of view.</td>
<td>36</td>
<td>27.3</td>
<td>38</td>
<td>28.8</td>
<td>32</td>
</tr>
<tr>
<td>If swept away in the passion of the moment, I have sexual intercourse without using a condom.</td>
<td>5</td>
<td>3.8</td>
<td>10</td>
<td>7.6</td>
<td>53</td>
</tr>
<tr>
<td>I insist on examining my sexual partner for sores, cuts, or abrasions in the genital area.</td>
<td>22</td>
<td>16.7</td>
<td>21</td>
<td>15.9</td>
<td>37</td>
</tr>
<tr>
<td>If my partner insists on sexual intercourse without a condom, I refuse to have sexual intercourse.</td>
<td>36</td>
<td>27.3</td>
<td>22</td>
<td>16.7</td>
<td>44</td>
</tr>
<tr>
<td>I avoid sexual intercourse when I have sores or irritation in my genital area.</td>
<td>66</td>
<td>50.0</td>
<td>22</td>
<td>16.7</td>
<td>14</td>
</tr>
<tr>
<td>I use drugs prior to or during sexual intercourse.</td>
<td>2</td>
<td>1.5</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>I engage in oral sex without using protective barriers such as a condom or rubber dam.</td>
<td>12</td>
<td>9.1</td>
<td>25</td>
<td>18.9</td>
<td>26</td>
</tr>
<tr>
<td>I engage in anal intercourse without a condom</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.8</td>
<td>4</td>
</tr>
</tbody>
</table>
7.2 Attitudes towards condom-use among the university students

In the attitudes towards condoms questionnaire the participants could get a sum from 0-14 points, where 0 was equal to a positive attitude towards condoms and 14 was equal to a negative attitude towards condoms. The mean value of the sum from attitudes towards condoms questionnaire were 4.72 points (SD = 2.979, Min = 0, Max = 14).

The results of attitude towards condom-use, included the answers from the 132 students who answered having had sexual intercourse (Table 3). When asked if condoms are suitable for casual sex 73.5% (n=97) agreed, 6.1% (n=8) was not sure or did not know and 20.5% (n=27) disagreed. When instead asked if condoms are suitable for a steady relationships the participants answered that 61.4% (n=81) agreed with the statement, 20.5% (n=27) was not sure or did not know and 18.2% (n=24) disagreed.

28.8% (n=38) of the students agreed with that condoms reduce sexual pleasure. 34.1% (n=45) was not sure or did not know and 37.1% (n=49) disagreed with the statement. When asked if condoms affect the mood in a negative way 20.5% (n=27) reported that they agree, 40.2% (n=53) did not know or was not sure and 39.4% (n=52) disagreed.

The participants were asked if it would be hard to tell a partner to use a condom if he or she does not want to use it. 24.2% (n=32) agreed with that it would be difficult, 19.7% (n=26) did not know or was not sure and 56.1% (n=74) did not think it would be hard.
Table 3: Attitudes towards condoms

<table>
<thead>
<tr>
<th>Attitudes towards condoms</th>
<th>Total n= 132</th>
<th>Male n=97</th>
<th>Female n=35</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agree</td>
<td>Not Sure</td>
<td>Disagree</td>
</tr>
<tr>
<td>Condoms are an effective method to prevent pregnancy’s</td>
<td>123</td>
<td>93.2</td>
<td>6</td>
</tr>
<tr>
<td>It’s to embarrassing for me to ask my partner to use condom</td>
<td>11</td>
<td>8.3</td>
<td>6</td>
</tr>
<tr>
<td>Condoms are suitable for casual sex</td>
<td>97</td>
<td>73.5</td>
<td>8</td>
</tr>
<tr>
<td>Condoms are suitable for steady relationships</td>
<td>81</td>
<td>61.4</td>
<td>27</td>
</tr>
<tr>
<td>It would be to embarrassing for me to buy or obtain condoms</td>
<td>12</td>
<td>9.1</td>
<td>14</td>
</tr>
<tr>
<td>Condoms reduce sexual pleasure</td>
<td>38</td>
<td>28.8</td>
<td>45</td>
</tr>
<tr>
<td>I feel protected while using a condom</td>
<td>120</td>
<td>90.9</td>
<td>9</td>
</tr>
<tr>
<td>Condoms are to expensive to buy</td>
<td>24</td>
<td>18.2</td>
<td>27</td>
</tr>
<tr>
<td>Condoms affect the mood in a negative way</td>
<td>27</td>
<td>20.5</td>
<td>53</td>
</tr>
<tr>
<td>It’s hard to tell my partner to use a condom if he/she don’t want to use it</td>
<td>32</td>
<td>24.2</td>
<td>28</td>
</tr>
</tbody>
</table>

7.3 Correlation between high risk behavior and high negative attitude towards condoms

Pearson's correlation coefficient was used to assess the relationship between high sexual risk behavior and high negative attitude towards condoms. The result showed a correlation between the two variables, r=0.326, n= 132, p= 0.00. Overall there was a strong correlation between high risk behavior negative attitudes towards condoms.

7.4 Differences between sex and sexual risk behavior

An independent t-test was used to compare the total sum from each participant in the Safe sex
behavior questionnaire, between male 61% (n=97) and female 31.8 % (n=35). There were no significant difference between males (M=37.9, SD=8.18) and females (M=38.49, SD=9.36) regarding their sexual risk behavior, t=0.412, p= 0.68 (n = 130). This means that gender does not have an effect on sexual risk behavior.

7.5 Differences between sex and attitudes towards condom use

An independent t-test was used to compare the negative attitudes towards condoms between male 61 % (n=97) and female 31.8% (n=35) participants. There were no significant difference between males (M= 4.72, SD= 3.145) and females (M =4.71, SD= 2.504) regarding their attitudes towards condom-use, t=0,012, p= 0.990 (n=130). This means that gender does not have an effect on attitudes towards condoms.

8 DISCUSSION

Almost half of the participants 132 (49.2%) have had sexual intercourse. Of the 132 participants only 20 (15.2%) had a higher risk behavior than average. There were no significant difference between genders regarding sexual risk behavior and attitudes towards condoms. A correlation between high risk behavior and high negative attitude towards condoms could be seen in this study.

8.1 Result discussion

Based on the background preparation and previous studies done before this study, the sexual active sample expected was not anticipated to be significantly high. According to Sirirassamee and Siriassamee (2013), who did a study in Thailand containing 938 participants, 36.2% were sexually active. In China a similar study were executed which showed a prevalence of 22.9% of sexual active participants (Appleby, Guo, Guo, Huang, McAleese, Peterson & Zhang, 2014). After collecting all the samples and analyzing the data the result from our study showed that almost half
(49.2%) of the participants had answered having had sex, which is an interesting difference from previous studies. The reason for this type of result can of course be speculated back and forth. For example, the size of the sample or the setting of the study could have had an important effect on the outcome. However, the result still indicates a possible development. As seen in previous studies (Vuttanont et al., 2006), a modern change has developed over the last few years where the sexual norms of the youth of Thailand have begun to change. Sex has been a more accepted topic in society and the young adults have escalated towards a more modern sexual freedom. This could be the reason for the increased percentage of sexual active participating students in our study.

Compared with other studies on university students around the world, this result landed somewhere in between. For example, a study in Taiwan by Tung et al. (2011) showed that only 27.8% were sexually active, while a study in Spain (Romero-Estudillo, González-Jiménez, Mesa-Franco & García-García, 2014) showed that approximately 60% of the participants have had sex. This seems to strengthen the fact that cultural differences are the reason for the different results.

8.1.1 Sexual risk behavior

The result indicate that the students participating in the study had a average risk behavior. Due to the fact that the participants who had not had sexual intercourse could not be included in this study. They would therefore not have a risk behavior and would always get a total score of 0. However, since 50.9% answered never having had sex they still contributed with the knowledge that this group does not increase the risk behavior within the population. These findings suggests that the university students as a group in fact have a lower risk behavior.

Based on the results in this study 50.8 % of the sexually active participants always insisted on condom-use during sexual intercourse while only 3.8 % answered never insisting on that same protective measure. This result was similar to a study done by Sirirassamee and Siriassamee in
Thailand in 2013 where 54.3% of the participants used a condom during their last sexual intercourse and 12.7% did not. When on the other hand compared to studies performed in other countries these results showed a significantly higher prevalence of condom-use (Lally et al., 2015; Xinying et al., 2013; Tung et al., 2011). For example, according to Xinying and other co-workers (2013) college students in China uses condoms more irregularly. Only 24.7% was reported using condoms during every sexual intercourse and 17.9% would never use a condom. According to Lally et al. (2015) in Ireland 86% would have oral sex and 19.5% anal sex without ever having a protecting barrier, which differs when compared to our result where 44.7% would always use a protective barrier during oral sex and none of the participants would never use a condom during anal sex. The result from a study done by Tung et al. (2011) in Taiwan showed the same behavior when only one third of their sample reported practicing safe sex routinely. Such results proves that there are affecting factors which creates differences between countries and their safe sex behavior.

According to Sadovszky et al. (2014) STDs are mainly caused by a high sexual risk behaviour. If this were to correlate with our study, based on the result that there were no significant difference between genders regarding sexual risk behavior, it would open up the possibility that male and female participants also have the same risk of getting STDs. Further studies are however needed to prove such a correlation.

8.1.2 Attitudes towards condoms

The part attitude towards condom-use consisted of 10 statements with 3 options where each . The total sum of the points gained from these questions could differ between 0 to 20. The higher the score the more negative the attitudes were towards condom-use and vice versa. The mean value were 4.72 points which shows that the participants in general had a positive attitude towards condoms. Similar result could also be seen in the same age group from a study by Stulhofer, Graham, Bozicevic, Kufirin, & Ajdukovic (2007). These young adults also reported a positive
attitude towards condoms. Furthermore the study showed that a negative attitude towards condom-use correlated with lower condom-use. This might indicate that the participants in our study have a greater condom use due to the fact that they have a positive attitudes towards condoms. If there were such a correlation it was not investigated in this study. In the study by Stulhofer et al. (2007) the authors found a significant difference between genders, were women tend to be more positive towards condom-use than men. However no significant difference between genders were found in our study.

93.2 % (N=123) of the participants agreed with that condoms are an effective way of preventing pregnancies and 90.9 % (N=120) answered that they feel protected while using a condom. This is consistent with the facts showing that condoms are an effective precaution against STDs and unwanted pregnancies but that few 18 to 25-year olds have this knowledge (UNAIDS, 2014a). The result could therefore indicate that the university students in our study have enough knowledge about condoms to know how and why to use them. According to UNICEF (2010) one of the fundamental parts of continued reduction of HIV prevalence nationwide is knowledge which is why this is an important area that needs to be further studied.

Almost 30% of the participants in the study thought that condoms reduces sexual pleasure. These findings are similar to previous research in the United states where 18% of the participants answered that it would be a good chance that condoms would reduce their sexual pleasure. 11% answered that there were almost a certain chance that condoms would reduce their sexual pleasure (Higgings & Wang, 2015). Similar studies also indicates that a person with the attitude that condoms reduce pleasure is strongly associated with the lack of condom use (Higgings & Wang, 2015; Romero-Estudillo, González-Jiménez, Mesa-Franco & García-García, 2014). Even though this exact correlation was not investigated in our study it turned out being one of the more dominant reasons for a negative attitude towards condoms.

The Pearson correlation test done further showed a significant correlation between a high sexual risk behavior and a negative attitude towards condom-use. This result was also found by Widman,
Golin, Grodensky & Suchindran (2013) where the participants who expressed a positive attitude towards condom-use also showed an increase of safe sex behavior. Such facts therefore strengthen the conclusion from our study and proves that a similar correlations does exist.

8.2 Theoretical framework discussion

According to the Health belief model (HBM) the decision to take action towards a protective measure is founded in the individual's own risk perception (Glanz et al., 2002). The students in this case, needs to be aware of their different sexual risk behaviors to be able to take a preventive action and change any negative attitudes.

Based on the results from the attitudes towards condom-use the majority of the participants felt protected when using a condom. The fact that 72% of the students always or most of the time insisted on condom-use during sexual intercourse (50.8% + 21.2%) proves that their awareness of the protective measure and it’s effectiveness is enough motivation to implement it. However, more than half of the participants (53.8%) would never or only sometimes refuse to have sexual intercourse without a condom if a partner insisted on it (20.5% + 33.3%). These answers shows that there is a trust towards the protective measure, but a disbelief towards encountering a risk when avoiding it. When compared to the HBM-cycle this behavior can be described as a progressed cue to action, but also a unachieved self-efficacy. A achieved self-efficacy would be when the person realizes that their protective measure is a form of self-care which benefits their own health by reducing the risks (Sung et al., 2015). Signs of such behavior can be seen in the participants based on specific questions. For example, out of the 132 sexually active university students 49.2 % would always bring a condom if they knew an encounter might lead to sex. This means that 49.2 % of the sample have begun to implement the protective measure into their everyday life by taking their own precautions, which is a form of self-efficacy. But because they still are not always using this
protection during the moment of exposure this behavior shows that the self-efficacy have not been fully achieved. To be able to discuss the exact reasons for this result, including all of the different steps of the HBM-cycle there needs to be further complementary studies including questions regarding the participants’ knowledge about risks and different ways of protection.

8.4 Methodology discussion

The decision to have a strategic sample was due to the amount of previous research found. It made it possible for the authors to pick the samples based on the description of the risk groups produced in these studies. The realization of the data collection was then made with the cooperation of the Thai co-supervisors and the participating universities and ended up giving the authors a sample larger then expected and a more generalizable result.

The questionnaire was distributed to the students in their classrooms during school hour. The distribution of the questionnaire was suitable for the purpose. Distribution of questionnaires to a larger group is an effective way of distribution due to the fact that it leads to a high response rate and therefore increases the external validity (Billhult & Gunnarsson, 2012a). It also reduces the overall work and cost of the study. On the other hand questionnaires distributed to larger groups have a higher risk of having negative effects to the internal validity. It may lead to students in the class answering the questionnaire even though they do not want to participate. The participants might be afraid that other students or teachers could have seen their answers and as a result the answers truthfulness might have been affected (Billhult & Gunnarsson, 2012b). The fact that the questionnaire was collected as soon as it was completed showed a respect towards the anonymity of the study, but might also have created a stress factor for those who needed more time. The loss of participants was however quite few (n=2). The most common reason for having to discard a sample was due to the incompletion of the questionnaire, which indicates that the internal validity should
have been more carefully thought of. There were on the other hand very few questions regarding the questionnaire and well prepared information on both the execution of the questionnaire and the information regarding participation. All of which was given in both Thai and English.

The Safe Sex Behavior Questionnaire (SSBQ) was used to collect the data in this study. This instrument was found with the help of the thesis’ co-supervisors in Thailand. It was used by a previous study performed in Thailand (Kuysuwan, Supparerkchaisakul, Chuawanlee & Intarakamhang, 2013) where the SSBQ was translated into Thai and adjusted to fit the Thai culture. Since the questionnaire has been used in earlier studies and proved to be an effective instrument to use when researching safe sex questions, it is estimated to have a high reliability. It was important for the authors that the questionnaire was translated into Thai so that the participants would understand the questions to the fullest without any misunderstandings. However, when using a premade questionnaire it limits the options to redo and adjust different questions to fit the studies research questions without affecting the reliability.

The student sample was not randomized and the results could therefore be difficult to generalize to the population. The sample might also have been too small to generalize to the rest of Thailand’s university students in general. Time was limited during this study, which is why a larger sample was not collected from more universities. The location and orientation of the universities created a wide difference between the type of students participating which had both a positive and negative effect on the internal validity. The different universities had a large difference between genders. During the first data collection the majority of the participants were male students and the result therefore contained a larger percentage of males. The second university had a majority of women participants, but it was not enough to even out the difference from the first sample. This resulted in an inability to analyze different factors, such as the possible differences between genders regarding
specific questions in the questionnaire. Another reason for this variety is that a large percentage of the females answered not having had sexual intercourse and could therefore not be included in the analysis. With more time the amount of participants from the second university could have been increased and therefore made a better result. A large variety of students from different backgrounds and with different types of educations is however also a good way to increases the external validity and generalization of the sample. To reach any further generalizable results in relation to the population more and larger studies are therefore needed.

8.4.1 Ethical consideration

The ethical considerations in this study was thoroughly thought through and amplified to the entirety of the study. None of the practical work was done before having an approval from the Thai ethics committee (Appendix B). Both of the universities where the data was collected were asked in advance and were able to adjust the time and place to their liking. The one ethical problem that turned up was the usage of the informed consent. The informed consent was absolutely necessary for the students approval, but also included them having to sign their name at the same time as answering the questionnaire. It could therefore have affected the anonymity of the participants if a sample was misplaced or a informed consent was not separated immediately after collection. Due to the sensitivity of the questions this could also have affected the outcome of the study if a student felt any distrust towards the authors. Only one of the participants did not hand in the questionnaire and to respect the integrity of this person no reason were requested. The small sample of non-respondents proves that the ethical considerations were carefully thought of and applied in a adequate way.

8.5 Nursing implications

This study is among the first to study the relationship between negative attitude towards condoms
and high sexual risk behavior in Thailand. To maintain the sexual health the approach towards the sexuality and sexual relations has to be positive and respectful. All people's sexual rights have to be respected, protected and fulfilled to be able to reach and maintain sexual health (Hulter, 2004).

Nurses have a significant role in health care regarding sexual health and reproduction. Despite the needs of sexual health education, the nurses do not seem to educate their patients despite the needs (Sundback, 2013). Previous studies showed that risk behavior is closely connected with self-efficacy (Sung et al., 2015), which is an important area to investigate further to be able to direct the nursing education and counseling further. Even though this study showed that the majority had an average risk behavior and the attitudes were generally positive there were still high risk behaviors and negative attitudes regarding specific questions. These factors can still be improved by increasing the nurses counseling further and lower the negative attitudes and risk behavior further.

This result can be used in further studies not only in Thailand, but also in Sweden and other countries with a high amount of STD's. Condom-use is in general a well-studied and well working prevention (Centers for disease control and prevention, 2014). It shows to profitable for society as well as for the individuals and could be improved with a higher frequency of free distribution. The UNAIDS Guidance Note (2014a), have pointed out the importance of condom-distribution and says that it should be a human right to have access to both male and female contraceptives, with a special focus on condoms. This would not only benefit the citizens, but also save the health-care a lot of avoidable treatments. A continued high sexual transmitted decease-level globally combined with more liberal sexual behavior may change the situation further in countries like Sweden as well (Socialstyrelsen, 2009). Important factors regarding sexual health is a safe sex experience free from violence, discrimination and oppression with an equal possibility of pleasure (Hulter, 2004).

Problems and changes concerning sexual health affect on public health in general and there is therefore an important area for the maintenance of life quality and avoiding of illness and distress
8.6 Conclusions

The majority of the university students in our study showed an average risk behavior, indicating a good standard behavior. The attitudes towards condoms were mostly positive with the exceptions of some specific questions. No significant difference between genders was found regarding sexual risk behavior and attitudes towards condoms. The study also showed a correlation between a high negative attitude towards condom-use and a high sexual risk behavior. Further studies about Thai university students regarding sexual risk behavior, attitudes towards condom-use and more specific items regarding gender would be of importance to further evaluate and decrease the sexual risks and STDs within the population.

9. ACKNOWLEDGEMENTS

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Our sincerest thanks also go to all of the department staff members at Ramathibodi School of Nursing for their help and support during the thesis.

Last but not least we would also like to give our deepest gratitude to the universities in Bangkok for letting us collect our data at their facility and to all the participants in the study, without them this thesis could not have been made.
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41


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Sexual risk behavior and attitudes towards condom use amongst university students

Part 1
1. Id nummer

2. Age___

3. Gender: Male___ Female___

4. Which year in school are you now: 1___ 2___ 3___ 4___

5. Religion: Non religion___ Buddhist___ Catholic___ Christian___ Muslim___

6. Do you have a boyfriend /girlfriend: No__ Yes___

7. Have you ever had sexual intercourse? No___ Yes___

8. Extra job: No ___ yes___


Part 4 (Sexual risk behaviour)
Directions: Below is a list of sexual practices. Please read each statement and respond by indicating your degree of use of these practices.

1 = Never                2 = Sometimes                 3 = Most of the Time                   4 = Always
<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I engage in sexual intercourse on a first date.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>I insist on condom use when I have sexual intercourse.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>I stop foreplay long enough to put on a condom (or for my partner to put on a condom).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>I avoid direct contact with my sexual partner's semen or vaginal secretions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>I ask potential sexual partners about their sexual histories.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6.</td>
<td>I ask my potential sexual partners about a history of bisexual/homosexual practices.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>I ask my potential sexual partners about a history of IV drug use.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8.</td>
<td>I abstain from sexual intercourse when I do not know my partner's sexual history.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9.</td>
<td>If I know an encounter may lead to sexual intercourse, I carry a condom with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>If I disagree with information that my partner presents on safer sex practices, I state my point of view.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>If swept away in the passion of the moment, I have sexual intercourse without using a condom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>I insist on examining my sexual partner for sores, cuts, or abrasions in the genital area.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>If my partner insists on sexual intercourse without a condom, I refuse to have sexual intercourse.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>I avoid sexual intercourse when I have sores or irritation in my genital area.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>I use cocaine or other drugs prior to or during sexual intercourse.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>I engage in oral sex without using protective barriers such as a condom or rubber dam.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>I engage in anal intercourse without a condom</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
**Part 5 Attitudes to condom use**

**Directions:**
People have different opinions about condoms. Below you will find a number of statements about condoms. Please tell whether you agree or disagree, or whether you don't know.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Agree</th>
<th>don’t know/not sure</th>
<th>disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Condoms are an effective method of preventing pregnancy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.2</td>
<td>It’s embarrassing for me to ask my partner to use a condom</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.3</td>
<td>Condoms are suitable for casual sex</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.4</td>
<td>Condoms are suitable for steady relationships</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.5</td>
<td>It would be embarrassing for me to buy or obtain condoms</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.6</td>
<td>Condoms reduce sexual pleasure</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.7</td>
<td>I feel protected while using a condom</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.8</td>
<td>Condoms are too expensive to buy</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.9</td>
<td>Condoms affect the mood in a negative way</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3.10</td>
<td>It’s hard to tell my partner to use a condom if he/she don’t want to use it</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Thank you for your answers!
### Documentary Proof of Ethical Clearance

**Committee on Human Rights Related to Research Involving Human Subjects**

**Faculty of Medicine Ramathibodi Hospital, Mahidol University**

---

**Title of Project**

EC_5B0813

Relationships between Knowledge about HIV and HBV, Attitudes to Condom Use and HBV Vaccine, and Sexual Risk Behavior among University Students

**Protocol Number**

ID 08-58-61

**Principal Investigator**

Asst. Prof. Dr. Wantana Maneesriwongul

**Official Address**

Ramathibodi School of Nursing  
Faculty of Medicine Ramathibodi Hospital  
Mahidol University

---

_The aforementioned project has been reviewed and approved by the Committee on Human Rights Related to Research Involving Human Subjects, based on the Declaration of Helsinki._

**Signature of Chairman**

Committee on Human Rights Related to Research Involving Human Subjects

Prof. Pat Mahachoklertwattana, M.D.

**Date of Approval**

September 3, 2015

**Duration of Study**

2 Months
We are four students who are studying the Science of Nursing at Uppsala University in Sweden. We are here to do our final thesis about the knowledge about hepatitis B, attitudes towards the hepatitis B vaccine, sexual risk behaviors and attitude towards condom-use among Thai-students in Bangkok. This study will include 200 participants between the ages of 18-25.

The purpose of this study is to examine the students knowledge about hepatitis B infection, knowledge and attitudes towards hepatitis B virus vaccine and the habits regarding safe sex and condom use to prevent spreading of HIV. The questionnaire is divided into 5 parts: background characteristics, knowledge about hepatitis B, attitudes towards hepatitis B vaccine, safe sex behavior and attitudes towards condom use.

Before you start we want you to know that the answers in this are a voluntary. The answers are completely anonymous and will only be seen by us during the analyzing process. To keep the process as fair as possible we ask you to answer the questions truthfully and to hand in the questionnaire as soon as you are done. For us to be able to use your data we will need you to answer most of the questions. The questionnaire is of course optional, so if you find any questions too personal, there’s no constraint in answering them. You may end the participation at any time. The questionnaire will take about 5-10 minutes to answer and please ask if you have any questions or thoughts.

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Sincerely,
Simon, Cindra, Emilia and Frida

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