Knowledge, attitudes and beliefs about sexually transmitted diseases among Vietnamese students at a vocational school in Ho Chi Minh City

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ABSTRACT

Sexually transmitted diseases (STDs) are a growing problem worldwide and young people are especially vulnerable. Every day about 1 million people contract a sexually transmitted disease (STD) and over half of the newly infected are young people aged between 15-24 years. **Aim:** The aim of this study was to investigate knowledge, attitudes and beliefs related to STDs among adolescents at a secondary school in Ho Chi Minh City, Vietnam, and to compare the genders regarding these issues. **Method:** This study was a descriptive and comparative cross-sectional study and a quantitative approach was used. The project was carried out at Nhan Dao Vocational Secondary School in Ho Chi Minh City, Vietnam. Two hundred and ten male and female students aged between 15-24 years participated in the study and chose to fill in the questionnaire. The questionnaire consisted of 31 questions regarding the students’ knowledge, attitude and beliefs of STD. Leininger’s Theory of Cultural Care Diversity and Universality was provided as theoretical framework. **Results:** The Vietnamese students at Nhan Dao Vocational School in Ho Chi Minh City, Vietnam, had low knowledge about STDs and the students’ attitudes to and beliefs about STDs showed that there exists a lot of misconceptions about the subject. The study did not show any major differences between the genders regarding knowledge, attitude or beliefs. **Conclusions:** Further research about young people’s practice needs to be performed in order to receive a wider perspective on young Vietnamese people’s knowledge, attitudes and beliefs. It is also important in order to be able to draw conclusions concerning whether knowledge and attitudes are related to sexual practice.

**Keywords:** Knowledge, attitude, belief, Vietnam, STD
SAMMANFATTNING

Sexuellt överförbara sjukdomar (STD) är ett växande problem världen över och ungdomar är särskilt utsatta. Varje dag smittas ca 1 miljon personer av en sexuellt överförbar sjukdom (STD) och över hälften av de smittade är ungdomar mellan 15-24 år. **Syfte:** Syftet med denna studie var att undersöka kunskaper, attityder och övertygelser relaterade till sexuellt överförbara sjukdomar bland ungdomar på en gymnasieskola i Ho Chi Minh City, Vietnam, och att jämföra könen i dessa frågor. **Metod:** Denna studie var en beskrivande, jämförande tvärsnittsstudie med kvantitativ metod. Projektet genomfördes på Nhan Dao Vocational Secondary School i Ho Chi Minh City, Vietnam. Tvåhundra tolv manliga och kvinnliga studenter i åldern 15-24 år deltog i studien och valde att fylla i frågeformuläret. Frågeformuläret bestod av 31 frågor om elevernas kunskaper, attityder och övertygelser om STD. Som teoretisk referensram användes Leiningers teori om mångfald och universalitet i kulturrelaterad omsorg. **Resultat:** De vietnamesiska studenterna hade bristande kunskap om sexuellt överförbara sjukdomar och elevernas attityd till och övertygelser om sexuellt överförbara sjukdomar visade att det finns många missuppfattningar om ämnet. Studien visade inte några större skillnader mellan könen när det gäller kunskap, attityd eller övertygelse. **Slutsats:** Ytterligare forskning om ungdomars sexuella vanor behöver utövas för att få ett vidare perspektiv på vietnamesiska ungdomars kunskaper, attityder och övertygelser. Det är också viktigt för att kunna dra slutsatser om huruvida kunskap och attityder är relaterade till det sexuella utövandet.

**Sökord:** Knowledge, attitude, belief, Vietnam, STD
CONTENTS

1. BACKGROUND ................................................................................................................. 6
   1.1. Knowledge of STDs .............................................................................................. 6
   1.2. Attitudes to STDs .............................................................................................. 8
   1.3. Beliefs about STDs ............................................................................................ 9
   1.4. Vietnam .............................................................................................................. 10
       Health in Vietnam ............................................................................................... 11
       Knowledge, attitudes and beliefs of STDs in Vietnam ..................................... 11
   1.5. Theoretical framework ....................................................................................... 12
   1.6. Rationale of research ......................................................................................... 13
   1.7. Aim ..................................................................................................................... 13
   1.8. Research questions ............................................................................................ 13

2. METHOD .......................................................................................................................... 14
   2.1. Design ................................................................................................................... 14
   2.2. Setting ................................................................................................................... 14
   2.3. Sample .................................................................................................................... 14
   2.4. Instrument ............................................................................................................ 15
   2.5. Procedure ............................................................................................................ 16
   2.6. Analysis of data ................................................................................................... 17
   2.7. Ethical considerations ......................................................................................... 17

3. RESULTS .......................................................................................................................... 18
   3.1. Demographic characteristics ............................................................................. 18
   3.2. Vietnamese students’ knowledge about STDs .................................................. 18
   3.3. Vietnamese students’ attitude towards STD ...................................................... 25
   3.4. Vietnamese students’ belief of STD ................................................................... 25

4. DISCUSSION .................................................................................................................... 29
   4.1. Discussion of results ........................................................................................... 29
       Knowledge ............................................................................................................ 29
1. BACKGROUND

Sexually transmitted diseases (STDs) are a growing problem worldwide and young people are especially vulnerable (1). Every day about 1 million people contract a sexually transmitted disease (STD) (2) and over half of the newly infected are young people aged between 15-24 years (1). Sexually transmitted diseases are diseases whose primary way of spreading is through sexual contact between two people. Other ways of spreading include transmission from mother to child during pregnancy and childbirth, through blood transfusions and by the sharing of needles among drug users (3). The term STD includes over 30 different bacteria, viruses, funguses and parasites. Some of the more known STDs are gonorrhea, syphilis, Chlamydia, HIV, herpes and hepatitis B. According to the World Health Organization (WHO) STDs are some of the more common infectious diseases among young people. Having an STD can also lead to dire consequences such as an early death when suffering from AIDS and genital cancer caused by human papilloma virus. Another major consequence for women who have had an STD, especially if it is of a kind that can lead to pelvic inflammatory disease (PID) is infertility and ectopic pregnancies. Having an STD also increases the risk to acquire other STDs (4).

1.1. Knowledge of STDs

In a study performed in Malaysia on students aged 15-20 years it was found that knowledge about STD was moderate, bordering on low (5). Of the students participating in the survey 10.6% had never heard of STDs. Also it was found that while a majority of the students who knew of STDs had knowledge about HIV/AIDS, other STDs were mostly unknown to the students. It was found that in Malaysia there still exist misconceptions about STDs, as some students answered that leukemia and rheumatoid arthritis are examples of STDs. Furthermore it was found that knowledge is associated with a number of different socio-demographic characteristics. For example knowledge was significantly associated with education level, where a higher grade indicated higher knowledge. Not only the education level seemed to impact knowledge level, the course stream of the student also had a significant association with knowledge. Students who were in the science stream had a higher level of knowledge than for example the students in the art stream. Another significant association was found between socio-economic status, where higher status implied higher knowledge. When comparing knowledge between the genders no significant difference was found between boys and girls (5).
A study performed in Tanzania evaluated the knowledge of and attitudes to STDs among secondary school students (6). The students were aged between 13 and 25 years and there were a fairly even number of boys and girls who answered the questionnaire. Out of 635 students 99% claimed to have heard of STDs. However, only 11% could correctly name all four STDs among the ten existing alternatives. As many as 5% of the students could not correctly name any of the four correct STDs among the ten alternatives. The most common STDs the students were aware of were AIDS and gonorrhea. In the study it was also shown that the students at the secondary schools had very poor knowledge in some of the most common symptoms of STDs. As many as 39% of the students were unable to describe at least one correct common symptom of STDs, and 23% only knew of sexual intercourse as a mode of transmission of STDs. When describing how they obtained information about STDs the students most frequently mentioned media as a source, this included radio, television and the internet. An interesting note to this question is that none of the students mentioned their parents or their teachers as a source of information.

In a study investigating the knowledge among secondary school students in Ghana it was found that knowledge about STDs was very limited (7). The students most commonly recognized HIV/AIDS as a STD. Other STDs that the students were aware of were syphilis and gonorrhea. However, the knowledge seemed to be limited to the fact that these were actually STDs. When asked more detailed questions about symptoms of these diseases the students had little or no knowledge at all. It also seemed that some of the students’ own perceived knowledge consisted of misconceptions. Examples of these were that in order to prevent spreading of HIV/AIDS in particular one should avoid kissing, use a contraceptive pill and to simply avoid infected people.

When studying a minority group of 131 adolescents in Australia, between the ages of 15 and 19 it was found that only 51% of the male and 67% of the female participants knew what the term “safe sex” entailed (8). However, as many as 81% answered that the only safe way to protect from STDs while having intercourse was through the use of a condom. Despite this fact as many as 28% of the adolescents agreed that withdrawal during intercourse was also a good way of preventing STDs and 40% thought a condom was only needed to prevent from STDs if the man ejaculated during intercourse. About 60% of the adolescents reported that they had sought
information about STDs at some point. The most common sources if they wanted to learn more about STDs would be to visit a health worker or a nurse, to ask a doctor, family, friends and school.

A study was performed in Sweden among boys around the age of 18 in order to investigate their behavior, knowledge and attitudes in several matters concerning sexual and reproductive health. About 66% of the boys considered themselves sufficiently knowledgeable in sexual and reproductive health (9). Furthermore the authors found that when it came to obtain knowledge about these subjects the main sources of information was the sexual health education received in grade 6-9 (middle school) and friends. Very few of the students named the internet as a source of information. Even though two thirds of the boys thought they had sufficient knowledge their own knowledge was usually over-estimated. Only 56% of the boys who were in a vocational programme in school could correctly answer that syphilis is not the most common STD in Sweden, and 60% of the boys did not know that the STD condyloma was the same as genital warts.

In a study performed in India investigating the knowledge, perception and attitude towards STDs/HIV it was found that the knowledge among the girls aged between 14 and 19 years old was lacking (10). The authors described that the girls were not aware of the effects caused by some of the more common STDs such as gonorrhea and syphilis. The girls also lacked knowledge about some of the most common symptoms of STDs, where 33% did not consider ulcers in the genital area and pain during urination as signs of STDs. Furthermore 22% were unaware that vaginal discharge is an important sign of STDs in women. Also almost half of the girls were of the opinion that all STDs apart from HIV/AIDS could be cured, and over half of the girls were not aware that some STDs could lead to sterility if untreated. When it came to sources of information regarding STDs the most common sources were the internet, media, friends and magazines. According to McManus and Dhar (10) this was one of the most important factors leading to students having misconceptions about STDs.

1.2. Attitudes to STDs

In the study performed by Rondini and Krugu (7) in Ghana it was found that over 70% (70.9% of males, 75% of females) of the students were worried about and thought about HIV/AIDS. Other
STDs the students mentioned they were worried about were gonorrhea and syphilis. The most frequently mentioned way to prevent getting an STD was through abstinence, which as many as 92.4% of males and 87.9% of females mentioned as their first choice. Another frequently mentioned way to prevent STDs was to use a condom, which 86.1% of males and 60% of females mentioned. However, the matter of actual use of condoms as well as the correct use of condoms was further discussed. It was found that a common opinion about condoms was that they are not effective in preventing STDs. Other opinions were that condoms were not made for the African men and the African heat. Other misconceptions about condoms were that the condom could be put on after the sexual intercourse and still prevent STDs and as well as that one condom can be used several times. When girls discussed the matter of condom use a common opinion was that it is hard for girls to buy or get condoms, since other people could think that she was a “bad girl” which could in turn lead to stigmatization. Furthermore girls were not confident to bring up the matter of condom use with their partner, since the man might think that the girl had something to hide and that she might not be a girl to trust (7).

Makzenius et al. (9) found that when Swedish boys were asked the question if it was both the boy’s and the girl’s responsibility to use a condom when having sexual intercourse a majority of the boys agreed to this statement. However, a fairly common opinion about girls who carried condoms with her was that she usually had many sexual partners. Many of the male students were also of the opinion that they would use a condom more often if they were more easily accessible and free. They also felt that it was embarrassing to buy condoms and that it was easy to forget to use a condom “in the heat of passion” (9).

According to a study performed among adolescent girls in India, it was found that about 22 % agreed that there was nothing wrong with a boy and a girl having sexual relations before marriage though only 9% reported to ever have had sexual intercourse (10). However, almost half of the students also thought that condoms should not be available to youth since it could tempt them to start having intercourse.

1.3. Beliefs about STDs

Among secondary school students in Tanzania 46% of the students believed they were not at risk of contracting an STD and the most common reasons to this belief was that they practiced
abstinence, faithfulness and through the use of a condom (6). Surprisingly only 6% of the students who thought they were not at risk of contracting an STD thought so because they used a condom when having intercourse.

Among youth in Australia who were asked if they were worried about getting an STD if they forgot to use a condom when having intercourse a majority of 60% of the males and females answered that they were not worried if they forgot to use a condom just once (8). If they answered that they were in fact worried, the most common things to worry about were catching HIV, getting pregnant and getting an STD.

1.4. Vietnam

Vietnam is a developing country situated in Southeast Asia, with 89.5 million inhabitants as of July 2010 (11). With about 246 inhabitants per square kilometer Vietnam is one of the most densely populated countries in the world (12), and the population continues to grow at a rate of 1.1% each year (11). Kinh (Viet) is the most predominant ethnic group in Vietnam, followed by small percentages of Thai, Muong and Khome. The largest religion in the country is Buddhism but Catholicism is almost as common among the population. Literacy is considered to be good, as about 90% of the population over 15 years of age is able to read and write. About 28% of the population lives in urban areas while the rest lives in the rural areas of the country. Ho Chi Minh City is situated in the south of the country and has 7.1 million inhabitants, making it the most populated city in Vietnam (11).

After suffering from the consequences of war and the centrally-planned economy for many years the government was forced to make political and economical changes in 1986. The campaign, called Doi Moi, aimed to create a country which would be more adapted to suit the demands of the western world and to create a market economy. By the end of the 1990’s the results of the reforms of Doi Moi became evident in Vietnam. Businesses were flourishing and the economy grew markedly, with poverty decreasing from 50% to 29% in the 15 years between 1990 and 2005 (12). During 2009 the economy in Vietnam was expected to continue to grow as one of the few countries in Asia, even if the growth rates have slowed down in later years (13).
Health in Vietnam

Despite the fact that the Doi Moi was so successful in improving the economy in Vietnam it became evident that health care was one of the areas which had not improved as much, leaving many poor people without coverage of a health care plan. There are not enough educated health care personnel and hospital beds are too few to meet the demand. In order to get good health care one has to have money to pay. Furthermore most good hospitals are situated in the urban areas, leaving the rural areas to have low availability to more advanced health care (14).

The overall health in Vietnam is good considering factors such as infant mortality and life expectancy (14). Between 2000 and 2005 the prevalence of HIV/AIDS more than doubled in Vietnam and has thus grown to epidemic proportions in a very short period of time. Not only has the number of people infected with HIV grown significantly, but the number of AIDS-related deaths has also increased almost equally (15). The HIV/AIDS epidemic is centered to two major groups in the country. The largest group and also the group where prevalence increases the fastest is injecting drug users and their partners, where approximately 34 % were reported to have HIV in 2005. However in certain regions of the country the prevalence was estimated as high as 50-60 % in 2005. The second largest group is female sex workers and their clients, where the estimated prevalence was 16% (16).

Knowledge, attitudes and beliefs of STDs in Vietnam

In a study of women’s knowledge of STDs in a rural area in northern Vietnam it was found that knowledge is significantly related to higher educational level, older age (20-29 years) and being married (17). However, this study also found that knowledge among women aged 15-49 years in a rural area was generally low and that as many as half of the study population did not know one single cause of STIs.

According to studies performed in Vietnam there still exists misconceptions about some causes of STDs. Results show that as many as about 11 % of women in the study performed by Lan et al. (17) believed that bad hygiene could cause STDs. Other misconceptions are that sex during menses or sex a short time after delivery, multiple childbirths or abortions are causes of STDs.

In 1999 when a survey was conducted among 902 young Vietnamese people the overall knowledge about STDs was found to be good, where over 93% knew the ways of transmitting
STDs and 82.6% were aware that HIV is an STD (18). However, according to Nguyen et al. (19) there is a lack of education about sexually transmitted disease in society in general. In the Vietnamese society sex before marriage is disapproved and therefore parents often don’t educate their children about sex issues. Mass media is instead the main source for obtaining knowledge for young people according to Nguyen et al. (18).

There seems to be a significant difference in sexual knowledge between genders, where men appear to possess more knowledge than women. Also unmarried men discuss sex issues to a greater extent than women, who instead feel uncomfortable discussing these issues (19).

In Vietnam there exists a difference in attitude towards which behavior is acceptable among boys and girls. While it is more acceptable and sometimes even expected that boys should have a more risky sexual behavior and engage in sexual activity with more than one partner, girls on the other hand are expected not to engage in sexual activity until they get married. Girls should be “innocent” and “pure”, and if the girl is not a virgin when she gets married it could cause her a lot of social problems such as stigmatization and a lack of respect from her own family and her husband’s family (17, 20).

It is also socially and culturally believed that people who show symptoms of STDs are "unclean", and women with STDs in particular are often stigmatized as "bad women" (19). Being stigmatized will in many cases lead to the person becoming an outsider in society. Not only the person with HIV or another STD is affected and treated as an outsider, but the family is also avoided and the parents are considered as poor parents (21).

1.5. Theoretical framework

In this study Leininger’s theory of nursing about cultural care diversity and universality was used as a theoretical framework for the study. Leininger’s most fundamental ground for her theory is that care is the essence of nursing and the central and dominant and most unifying feature of this practice (22). Furthermore she states that in caring for patients it is essential to consider that all patients have different cultural backgrounds and that this also implies that all patients have different expectations and responses when it comes to being cared for. Leininger’s approach is thus focused on combining anthropological knowledge about cultures with the science of nursing in order to create a culturally congruent nursing care.
Leininger’s view on humans is that they are mainly shaped in a cultural society. She further specifies that in this cultural society a person is given values, norms, beliefs and a certain way of life that guides the thoughts, actions and behavioral patterns of a group of people (23). An important part of Leninger’s theory of nursing about cultural care diversity and universality discusses the culture related nursing care. Culture related care can be defined as cognitively learned and transferred values, convictions and life patterns which helps, guides, supports or enhances the possibility of other individuals or groups to preserve well-being or health. Cultural care also entails ways of improving lifestyle and life conditions, or to master disease, handicaps or dying.

1.6. Rationale of research

At the same time that there exist a solid traditional culture in Vietnam, the country is facing a number of rapid changes in society as the country evolves and is adapting to an open market economy and trying to face the demands of becoming connected to global political and economical forces. These changes in society lead to young people becoming increasingly exposed to tourism, international media and the internet, which can be confusing since western norms and culture differs greatly from the traditional Vietnamese culture, especially when it comes to the issue of sexual health (24).

1.7. Aim

The aim of this study is to investigate knowledge, attitudes and beliefs related to STDs among adolescents at a secondary school in Ho Chi Minh City, Viet Nam, and to compare the genders regarding these issues.

1.8. Research questions

1. What are knowledge, attitudes and beliefs of sexually transmitted diseases among the adolescents?

2. Is there any difference between the genders regarding knowledge, attitudes and beliefs of sexually transmitted diseases?
2. METHOD

2.1. Design

This study was a descriptive and comparative cross-sectional study and a quantitative approach was used.

2.2. Setting

The project was carried out at Nhan Dao Vocational Secondary School in Ho Chi Minh City, Vietnam. The project is in collaboration between the Department of Public Health and Caring Sciences, Uppsala University in Sweden and the Faculty of Nursing and Medical Technology, University of Medicine and Pharmacy in Ho Chi Minh City, Vietnam.

2.3. Sample

A purposive sampling was used for the selection of the participants. Initially the only inclusion criteria was for the student to be enrolled in either information technology or fashion design at Nhan Dao Vocational Secondary School and that the participant had to be in either the first, second or third year of secondary education. The authors were of the belief that the Nhan Dao Vocational Secondary School only had students enrolled who were between the ages of 16-20 years of age, leaving no need to add further exclusion criteria prior to distributing the questionnaires at the school.

However, after a first review of the collected questionnaires it was revealed that some students were 32 years old. This made the authors reconsider the age span of students who were eligible for participation in this study. In order to better fit the purpose of the study the authors added the inclusion criteria that students had to be between 15 and 24 years old in order to participate. The age span of the students was determined in order to fit the definition of when a person is considered to be “youth” (Youth and the United Nations, 2010).

The criteria that students had to be enrolled in either information technology or fashion design was established in order to receive a somewhat equal proportion of participants who were boys and girls respectively after the authors’ own presumptions that a majority of students enrolled in
information technology are boys and that a majority of students enrolled in fashion design are girls.

The total number of students who were asked if they were willing to participate in the study was 221. This was also the same number of students who chose to actually participate in the study. Since the authors did not ask the students of their age prior to filling in the questionnaire the authors had no exact knowledge of the age of the participants. This meant that 11 of the students were not actually eligible to participate since they did not match the inclusion criteria of being between 15-24 years old and were thus excluded. This resulted in a total number 210 participating students, whose response rate was 100%.

2.4. Instrument

A questionnaire was developed by Dr Pranee Lundberg and Ms. Trieu Thi Ngoe Thu, who had knowledge about the Vietnamese culture and society as well as knowledge about the area studied (Appendix 1a). Ms Thu translated the English version of the questionnaire into Vietnamese language (Appendix 1b) and also tested the questionnaire using face validity before use. The questionnaire consists of 31 questions of a multiple choice character and is divided into two parts. Part one consists of questions concerning demographic characteristics. Part two is divided into three subcategories: knowledge, attitude and beliefs of STDs. At the beginning of the first page of the questionnaire, before the questions, there is a short text with information about the study, about confidentiality, about the voluntary participation and also about how to correctly fill in the questionnaire.

Part one of the questionnaire consists of five questions concerning age, gender, year in school, religion, marital status, allowance from home or income every month, extra job, time period of staying in Ho Chi Minh City and persons to live with.

In part two the first subcategory is knowledge of STDs. The participants were asked to answer questions concerning whether they have heard of STDs and from where they have obtained this knowledge. The questionnaire also had five multiple choice questions regarding knowledge about STDs. The questions had both right or wrong choices with a maximum score of 26 right answers. The students could choose several answers to these multiple-choice questions and the number of right and wrong answers was counted.
The second subcategory is attitudes towards STDs. The questions consist of statements which can be answered with one of the following options: “agree”, “disagree” or “don’t know”. The last question in this subcategory concerns the matter of whether the participants are worried that they will contract an STD.

The third subcategory consists of questions concerning the participants’ beliefs of STDs. The questions are formed as statements to which participants can answer either “yes”, “no” or “don’t know”. If the answer is “yes” or “no”, there is also a possibility to specify different reasons to these answers.

2.5. Procedure

Ms Trieu Thi Ngoe Thu, Head of Department of Midwifery, Faculty of Nursing and Medical Technology contacted the director of Nhan Dao Vocational Secondary School to inform about the purpose of the project and to ask for permission to carry out the study at this school. After the Director had given consent and authorized the questionnaire the authors visited the school together with Ms Trieu Thi Ngoe Thu three times in order to collect the necessary number of questionnaires, each time two to four classes were visited depending on their size.

With each class Ms Thu started by describing in Vietnamese to the class what the purpose of the project was. She further explained that participation was voluntary and that everyone was free to leave if and when they felt like doing so. She also reminded the class that there were written instructions on the front of each questionnaire if the student needed further explanation of how to properly fill in the questionnaire. Ms Thu told the class about confidentiality and that each person should fill in the questionnaire without looking at their desk neighbor and without talking during the period of time assigned to fill in the questionnaire. She also told the students about the time to fill in questionnaire will be 15 minutes and the questionnaires would be collected after 15 minutes.

When the proper preparations had taken place the questionnaires were distributed by the authors together with Ms Thu. Each student was given one questionnaire to fill in. After 15 minutes had passed one of the authors collected the questionnaires in a big envelope which was sealed after all questionnaires were collected and counted.
2.6. Analysis of data

Data from the questionnaires was analyzed by using the computer program SPSS. In order to
describe the demographic characteristics of the participants descriptive statistics were used.
Descriptive statistics were also used to answer the first research question, which is the following:

1. What are knowledge, attitudes and beliefs of sexually transmitted diseases among the
adolescents?

The relationship between age and the total number of correct answers to the questions regarding
knowledge was investigated using Pearson product-moment correlation coefficient. In order to
answer the second research question comparative statistics were used. The second research
question is the following:

2. Is there any difference between the genders regarding knowledge, attitudes and beliefs of
sexually transmitted diseases?

The authors have chosen to use the Chi-square test to compare the genders about these issues.
For significant difference, a p-value $\leq 0.05$ was accepted.

2.7. Ethical considerations

The participants received written and verbal information of the purpose of this study prior to
filling in the questionnaire. They were also informed that all participation is voluntary and that
they were free to interrupt their participation at any moment in accordance with the Declaration
of Helsinki (25) and the ICN Code of Ethics for Nurses (26).

This study potentially put participants in an uncomfortable situation as the subject of study could
be considered a sensitive subject in a country such as Vietnam, with its traditions and cultural
beliefs (24). The authors together with both Dr Pranee Lundberg and Ms Trieu Thi Ngoe Thu
designed the study in order to facilitate, encourage and respect each participant’s integrity and to
make confidentiality a priority in every aspect of the process.
3. RESULTS

3.1. Demographic characteristics

The total number of participants was n=210. The demographic characteristics (age, gender, year in school, religion, marital status, allowance from home or income every month, extra job, how many years they had lived in Ho Chi Minh City and the character of their living conditions) are presented in table 1.

The age of the participants were between 15 and 24 years with a mean age of 18.73 years (SD 2.24). The participants took courses in fashion design or information technology. Of the students 35.1% (74/210) were in first year in school, 45.5% (96/210) in second year and 8.0% (38/210) in their third year of school.

There were significant differences between male and female groups regarding year in school, only one male student was in the third year of school compared to 34 female students. There were also significant differences between the genders for religion and marital status (table 1). After performing a missing system analysis in SPSS it was discovered that only 157 of the 210 participants had chosen to answer the demographic question concerning income.

3.2. Vietnamese students’ knowledge about STDs

The calculated mean of right answers for all students was 9.49 (SD 4.89). Low scores indicate a lack of knowledge (figure 1). There were no significant differences between male and female students regarding right answers. No correlation between age and the total number of right answers was found, r=0.21, n=210, p=0.002.

About 85% (178/210) of the students had heard about other infections or diseases than HIV which can be obtained through sex, while 7.1% (15/210) had not heard about other diseases than HIV. Among the female students 81.1% (83/90) knew about other diseases than HIV while the number of male students was 87.5% (105/120).
Table 1. Demographic background of the Vietnamese students.

| Table 1: Demographic background of the Vietnamese students. |
|---------------------------------|-----------------|
| Total                           | Allowance from home or income every month |
| Gender                          | no (%)          |
| Male                            | 120 (57)        |
| Female                          | 90 (43)         |
| Age (years old)                 | mean = 18.73    |
| Year in school                  | n=210           |
| First                           | 74 (35.5)       |
| Second                          | 96 (46.1)       |
| Third                           | 38 (18.2)       |
| Religion                        | non religion o |
| Buddhist                        | 91 (43.1)       |
| Catholic                        | 48 (22.7)       |
| Protestant                      | 6 (2.8)         |
| Other                           | 2 (0.9)         |
| Marital status                  | n=205           |
| Single                          | 148 (72.2)      |
| Have girlfriend                 | 33 (16.1)       |
| Have boyfriend                  | 22 (10.7)       |
| Married                         | 1 (0.5)         |
| Unmarried couple                | 1 (0.5)         |
| Money                           | n=157           |
| 0-99.000                        | 8 (5.1)         |
| 100.000-500.000                 | 45 (30)         |
| 501.000-1.000.000               | 50 (32)         |
| 1.000.000-2.000.000             | 41 (26)         |

1 Allowance from home or income every month
2 Specified extra jobs
3 How many years have you stayed in Ho Chi Minh City
About 4% (8/210) of the students could identify all the correct causes of STDs. The most common wrong answers were “bad hygiene of woman” 42.7% (87/210) and “bad hygiene of man” 34.6% (73/210). A significant difference in knowledge between male and female students was found only for the alternative of “having sex soon after delivery”. More of the females had wrongly answered that this is a possible cause for STD (table 2).

When asked the question which of a number of alternatives were STDs a majority of the students 91% (192/210), could identify HIV/AIDS. Concerning the other STDs available to choose from only a few of the students managed to pick out the right answers. Only 1.4% (3/210) of the students had knowledge about Chlamydia. For herpes only 3.3% (7/210) had knowledge about the disease while 4.3% (9/210) could identify Hepatitis C as an STDs (table 2). There was no significant difference in knowledge between the genders.

Among the available alternatives to choose from in the question concerning symptoms of STD there was a significant difference between the genders for the alternative of “abdominal pain”, p=0.02. More female students (4.3%, 9/90) were aware that abdominal pain was a symptom of STD than male students (4.3%, 3/120). In the same question the most common answers however were “itching in genital area” (46.2%, 97/210) and “genital ulcers or open sores” (44.8%, 94/210).

The fact that infertility is a complication of untreated STD was known by 40% of the students (84/210) and 36.2% (n=76) were aware that cervix cancer is a possible complication. These were the two most known complications of untreated STD but there was no significant difference between the genders (table 2).

In table 3, one of the three statements was a significant difference in knowledge about STDs between the genders (p=0.01). The statement regarding the possibility of men having a STD without having any symptoms was answered positively by 60.8% (n=73) of the males compared with 52.2% (n=47) of the females.

To the question regarding where the students obtained their knowledge about STD there were ten different alternatives to choose from. There were significant differences between the boys’ and
the girls’ answers to this question. The single most common source of information was magazines which 173 (82.4%) students had chosen, whereof 105 (87.5%) were boys and 68 girls (75.6%) with a significant difference between the genders (p=0.02). Other common answers with significant differences between the genders were the internet (p=0.00), television (p=0.00), school/college (p=0.00) and friends (p=0.00) (table 3).

In the questionnaire there was also a question concerning if the students had heard that anyone in their vicinity had had an STD other than HIV. There were six alternatives to choose from and the most common answer was “friends”, which 69 students (32.9%) had chosen. There was a significant difference between the genders, where more boys knew someone with an STD other than HIV than girls (p=0.02).

Figure 1. Knowledge: Knowledge among the Vietnamese students. The total number of right answers\(^1\) to question 11-17 presented as a histogram.

\[^1\] The maximum possible score was 26 correct answers.
Table 2. Knowledge: Vietnamese students’ knowledge about sexually transmitted diseases

<table>
<thead>
<tr>
<th>Possible causes of STDs</th>
<th>Total N=210</th>
<th>Male N=120</th>
<th>Female N=90</th>
<th>Significance (p-value)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacteria</td>
<td>91 (43.3)</td>
<td>52 (43.3)</td>
<td>39 (43.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Virus</td>
<td>94 (44.8)</td>
<td>60 (50)</td>
<td>34 (37.8)</td>
<td>NS</td>
</tr>
<tr>
<td>Fungus</td>
<td>70 (33.3)</td>
<td>34 (28.3)</td>
<td>36 (40)</td>
<td>NS</td>
</tr>
<tr>
<td>Bad hygiene of woman</td>
<td>123 (58.6)</td>
<td>71 (59.1)</td>
<td>52 (57.8)</td>
<td>NS</td>
</tr>
<tr>
<td>Bad hygiene of man</td>
<td>137 (65.2)</td>
<td>78 (65)</td>
<td>59 (65.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Using unclean water</td>
<td>174 (82.8)</td>
<td>101 (84.1)</td>
<td>73 (81.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Sex during menses</td>
<td>149 (71)</td>
<td>84 (70)</td>
<td>65 (72.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Have sex soon after delivery</td>
<td>185 (88)</td>
<td>111 (92.5)</td>
<td>74 (82.2)</td>
<td>S (p=0.02)</td>
</tr>
<tr>
<td>Blood transfusion</td>
<td>75 (35.7)</td>
<td>42 (35)</td>
<td>33 (36.7)</td>
<td>NS</td>
</tr>
<tr>
<td>Infected swimming pool water</td>
<td>172 (82)</td>
<td>99 (82.5)</td>
<td>73 (81.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Don't know</td>
<td>23 (11.0)</td>
<td>12 (10)</td>
<td>11 (12.2)</td>
<td>NS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which diseases are STDs</th>
<th>Total N=210</th>
<th>Male N=120</th>
<th>Female N=90</th>
<th>Significance (p-value)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuberculosis</td>
<td>202 (96.1)</td>
<td>117 (97.5)</td>
<td>85 (94.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>112 (53.3)</td>
<td>64 (53.3)</td>
<td>48 (53.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Syphilis</td>
<td>137 (65.2)</td>
<td>84 (70)</td>
<td>53 (58.9)</td>
<td>NS</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>192 (91.4)</td>
<td>109 (90.8)</td>
<td>83 (92.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>15 (7.1)</td>
<td>10 (8.3)</td>
<td>5 (5.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Hepatitis C</td>
<td>9 (4.3)</td>
<td>6 (5)</td>
<td>3 (3.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>3 (1.4)</td>
<td>3 (2.5)</td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>Herpes</td>
<td>7 (3.3)</td>
<td>6 (5)</td>
<td>1 (1.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Don't know</td>
<td>13 (6.2)</td>
<td>5 (4.2)</td>
<td>8 (8.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.5)</td>
<td>1 (0.8)</td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Routes of STDs</th>
<th>Total N=210</th>
<th>Male N=120</th>
<th>Female N=90</th>
<th>Significance (p-value)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual intercourse</td>
<td>187 (89)</td>
<td>107 (51)</td>
<td>80 (88.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Blood transfusion</td>
<td>76 (36.2)</td>
<td>48 (22.9)</td>
<td>28 (32.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Sharing needle</td>
<td>81 (38.6)</td>
<td>50 (23.9)</td>
<td>31 (34.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Sharing clothes, things</td>
<td>184 (87.6)</td>
<td>104 (86.7)</td>
<td>80 (88.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Sharing food</td>
<td>209 (99.5)</td>
<td>119 (99.2)</td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>Mother to child</td>
<td>90 (42.9)</td>
<td>53 (44.2)</td>
<td>37 (41.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Don't know</td>
<td>8 (3.8)</td>
<td>3 (2.5)</td>
<td>5 (2.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Other</td>
<td>1 (0.5)</td>
<td>1 (1.1)</td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>
Table 2 continued.

Symptoms of STDs

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal pain</td>
<td>12 (5.7)</td>
<td>3 (2.5)</td>
<td>9 (10)</td>
<td>S (p=0.02)</td>
</tr>
<tr>
<td>Discharge from penis/vulva</td>
<td>57 (27.1)</td>
<td>28 (23.3)</td>
<td>29 (32.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Itchting in genital area</td>
<td>97 (46.2)</td>
<td>56 (46.7)</td>
<td>41 (45.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Burning pain in urination</td>
<td>66 (31.4)</td>
<td>34 (28.3)</td>
<td>32 (35.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Pain during intercourse</td>
<td>57 (27.1)</td>
<td>27 (22.5)</td>
<td>30 (33.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Genital ulcers or open sores</td>
<td>94 (44.8)</td>
<td>53 (44.2)</td>
<td>41 (45.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Swellings in the genital area</td>
<td>87 (41.4)</td>
<td>50 (41.7)</td>
<td>37 (41.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Blood in urine</td>
<td>39 (18.6)</td>
<td>24 (20)</td>
<td>15 (16.7)</td>
<td>NS</td>
</tr>
<tr>
<td>Failure to pass urine</td>
<td>30 (14.3)</td>
<td>18 (15)</td>
<td>12 (13.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Loss of weight</td>
<td>21 (10)</td>
<td>13 (10.8)</td>
<td>8 (8.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Weakness</td>
<td>33 (15.7)</td>
<td>20 (16.7)</td>
<td>13 (14.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Don't know</td>
<td>66 (31.4)</td>
<td>33 (27.5)</td>
<td>33 (36.7)</td>
<td>NS</td>
</tr>
<tr>
<td>Other</td>
<td>6 (2.8)</td>
<td>6 (5)</td>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

Complications of STDs

<table>
<thead>
<tr>
<th>Complication</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infertility</td>
<td>84 (40)</td>
<td>49 (40.8)</td>
<td>35 (38.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Premature birth</td>
<td>26 (12.4)</td>
<td>13 (10.8)</td>
<td>13 (14.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Stillbirth</td>
<td>33 (15.7)</td>
<td>22 (18.1)</td>
<td>11 (12.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Ectopic pregnancy</td>
<td>20 (9.5)</td>
<td>10 (8.3)</td>
<td>10 (11.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Miscarriage</td>
<td>29 (13.8)</td>
<td>19 (15.8)</td>
<td>10 (11.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Cervix cancer</td>
<td>76 (36.2)</td>
<td>45 (37.5)</td>
<td>31 (34.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Don't know</td>
<td>82 (39)</td>
<td>47 (39.2)</td>
<td>35 (38.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Other</td>
<td>12 (5.7)</td>
<td>9 (7.5)</td>
<td>3 (3.3)</td>
<td>NS</td>
</tr>
</tbody>
</table>

More than one answer could be chosen in these questions.
p<0.05 = significant difference (S), and p>0.05 = non-significant difference (NS)

¹ Chi-square statistics compares male and female groups.
Table 3. Knowledge: Vietnamese students’ sources of information.

<table>
<thead>
<tr>
<th>How do you know the information/knowledge about sexually transmitted diseases</th>
<th>Total N (%)</th>
<th>Male N (%)</th>
<th>Female N (%)</th>
<th>Significance (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>109 (51.9)</td>
<td>72 (60)</td>
<td>37 (41.1)</td>
<td>S (p&lt;0.00)</td>
</tr>
<tr>
<td>Family</td>
<td>86 (41)</td>
<td>55 (45.8)</td>
<td>31 (34.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Youth club</td>
<td>46 (21.9)</td>
<td>35 (29.2)</td>
<td>11 (12.2)</td>
<td>S (p&lt;0.00)</td>
</tr>
<tr>
<td>School/College</td>
<td>135 (64.3)</td>
<td>93 (77.5)</td>
<td>42 (46.7)</td>
<td>S (p&lt;0.00)</td>
</tr>
<tr>
<td>TV</td>
<td>144 (68.6)</td>
<td>94 (78.3)</td>
<td>50 (55.6)</td>
<td>S (p&lt;0.00)</td>
</tr>
<tr>
<td>Radio</td>
<td>58 (27.6)</td>
<td>38 (31.7)</td>
<td>20 (22.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Magazine</td>
<td>173 (82.4)</td>
<td>105 (87.5)</td>
<td>68 (75.6)</td>
<td>S (p&lt;0.02)</td>
</tr>
<tr>
<td>Internet</td>
<td>150 (71.4)</td>
<td>101 (84.2)</td>
<td>49 (54.4)</td>
<td>S (p&lt;0.00)</td>
</tr>
<tr>
<td>Hospital/ Clinic</td>
<td>89 (42.4)</td>
<td>56 (46.7)</td>
<td>33 (36.7)</td>
<td>NS</td>
</tr>
<tr>
<td>Others</td>
<td>12 (5.7)</td>
<td>10 (8.3)</td>
<td>2 (2.2)</td>
<td>S (p&lt;0.05)</td>
</tr>
</tbody>
</table>

Have you heard any of the following people told you that they had a sexually transmitted disease other than HIV?

<table>
<thead>
<tr>
<th>How do you know the information/knowledge about sexually transmitted diseases</th>
<th>Total N (%)</th>
<th>Male N (%)</th>
<th>Female N (%)</th>
<th>Significance (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td>69 (32.9)</td>
<td>47 (39.2)</td>
<td>22 (24.4)</td>
<td>S (p&lt;0.02)</td>
</tr>
<tr>
<td>Parents</td>
<td>14 (6.7)</td>
<td>6 (5)</td>
<td>8 (8.9)</td>
<td>NS</td>
</tr>
<tr>
<td>Brother/Sister</td>
<td>14 (6.7)</td>
<td>7 (5.8)</td>
<td>7 (7.8)</td>
<td>NS</td>
</tr>
</tbody>
</table>

More than one answer could be chosen in these questions.
p<0.05 = significant difference (S), and p>0.05 = non-significant difference (NS)

1Chi-square statistics compares male and female groups.
3.3. Vietnamese students’ attitude towards STD

As many as 35.2% (74/210) thought that STDs are not dangerous because they can be cured, but when asked if young adults who get an STD must be treated for the condition 92.4% (194/210) agreed. A misconception existed among 25.2% (53/210) of the students, who thought that it is necessary to avoid a person who has an STD since they can transmit the disease to another person. Another misconception was that existed was that an emergency contraceptive pill could be used to prevent STD, where 18.6% (39/210) agreed that this was true (table 5).

A majority of the students 95.7% (201/210) agreed to the statement that young adults should get information/knowledge about STDs in order to prevent these diseases, as well as the fact that one should use a condom to prevent getting an STD which 84.5% (178/210) agreed to. There was also a significant difference between male and female students concerning the statement about condom use in order to prevent STDs, where 91.7% (110/120) of the male students agreed to the statement while only 75.6% (68/90) females agreed.

When asked if they worried a lot about catching an STD a majority of 76.2% (160/210) students answered that they did, but there was no significant difference between genders (table 5).

3.4. Vietnamese students’ belief of STD

This section of the questionnaire contained four questions which could be answered with either yes, no or don’t know. If the answer was either yes or no there was also a possibility for the students to further specify this answer with their own words.

A majority, 68.1% (143/210), of the students agreed that young adults are a high risk group to catch STDs (table 5). Only students who had answered yes to the question further specified their answer. The students’ specified answers were divided into seven categories. These were “lack of knowledge”, “unsafe sex”, “curiosity”, “sexual drive, “cultural beliefs”, “frequent use of media” and “lack of awareness”. The students’ specified answer most commonly fell into the category of “lack of knowledge”.

The number of male students who believed that STDs can be cured differed significantly from the number of girls, where 58.3% (79/120) of the male and 39.3% (35/90) of the female students
believed this was true (p=0.01). Specified answers were only given by students who had answered yes to this question and the answers were divided into the following categories: “scientific development”, “early treatment”, “early discovery” and “drug treatment”. The student’s specified answer most commonly fell into the category of “scientific development”.

A majority of the students, 74.3% (156/210), answered that they thought STDs could be prevented. The specified answer was categorized as follows: “good hygiene”, “condom use”, “prevention methods”, “knowledge about safe sex”, “awareness” and “knowledge about STDs”. The student’s specified answer most commonly fell into the category of “condom use”.

Table 4. Knowledge: Vietnamese students’ knowledge about sexually transmitted diseases.

<table>
<thead>
<tr>
<th>Have you heard about infections or diseases other than HIV that one can get through sex</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=210</td>
<td>N=120</td>
<td>N=90</td>
<td></td>
</tr>
<tr>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>(p-value)</td>
<td></td>
</tr>
<tr>
<td>Have you heard about infections or diseases other than HIV that one can get through sex</td>
<td>Yes</td>
<td>178 (85.2)</td>
<td>105 (87.5)</td>
<td>73 (81.1)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>15 (7.2)</td>
<td>7 (5.8)</td>
<td>8 (8.9)</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>16 (7.7)</td>
<td>7 (5.8)</td>
<td>9 (10)</td>
</tr>
</tbody>
</table>

Do you think it is possible for a man to have a STD (other than HIV) but not have symptoms

<table>
<thead>
<tr>
<th>Do you think it is possible for a man to have a STD (other than HIV) but not have symptoms</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=210</td>
<td>N=120</td>
<td>N=90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>(p-value)</td>
<td></td>
</tr>
<tr>
<td>Do you think it is possible for a man to have a STD (other than HIV) but not have symptoms</td>
<td>Yes</td>
<td>120 (57.1)</td>
<td>73 (60.8)</td>
<td>47 (52.2)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>29 (13.8)</td>
<td>20 (16.7)</td>
<td>9 (10)</td>
</tr>
<tr>
<td></td>
<td>Don’t know</td>
<td>61 (29)</td>
<td>27 (22.5)</td>
<td>34 (37.8)</td>
</tr>
</tbody>
</table>

Do you think it is possible for a woman to have a STD (other than HIV) but not have symptoms

<table>
<thead>
<tr>
<th>Do you think it is possible for a woman to have a STD (other than HIV) but not have symptoms</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=210</td>
<td>N=120</td>
<td>N=90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>(p-value)</td>
<td></td>
</tr>
<tr>
<td>Do you think it is possible for a woman to have a STD (other than HIV) but not have symptoms</td>
<td>Yes</td>
<td>117 (55.7)</td>
<td>71 (59.2)</td>
<td>46 (51.1)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>44 (21)</td>
<td>25 (21.7)</td>
<td>18 (20)</td>
</tr>
</tbody>
</table>

p<0.05 = significant difference (S), and p>0.05 = non-significant difference (NS)

1Chi-square statistics compares male and female groups.
Table 5. Attitudes: Vietnamese students’ attitudes towards sexually transmitted diseases.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=210</td>
<td>N=120</td>
<td>N=90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>(p-value)1</td>
</tr>
<tr>
<td>STDs are not dangerous diseases because they can be cured</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>74 (35.2)</td>
<td>45 (37.5)</td>
<td>29 (32.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>90 (42.9)</td>
<td>53 (44.2)</td>
<td>37 (41.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>46 (21.9)</td>
<td>22 (18.3)</td>
<td>24 (26.7)</td>
<td>NS</td>
</tr>
<tr>
<td>It’s necessary to avoid the person who get a STD because they can transmit the disease to another person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>53 (25.2)</td>
<td>30 (25)</td>
<td>23 (25.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>136 (64.8)</td>
<td>82 (68.3)</td>
<td>54 (60.0)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>21 (10)</td>
<td>8 (6.7)</td>
<td>13 (14.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Young adults who get STDs must be treated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>194 (92.4)</td>
<td>113 (92.4)</td>
<td>81 (90)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>3 (1.4)</td>
<td>2 (1.7)</td>
<td>1 (1.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>13 (6.2)</td>
<td>5 (4.2)</td>
<td>8 (8.9)</td>
<td>NS</td>
</tr>
<tr>
<td>If young adults are not sure about symptoms of STD they must contact directly with health personal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>194 (92.4)</td>
<td>112 (93.3)</td>
<td>82 (91.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>5 (2.4)</td>
<td>2 (1.7)</td>
<td>3 (3.3)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>11 (5.2)</td>
<td>6 (5)</td>
<td>5 (5.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Young adults should get information/knowledge about STDs in order to prevent these diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>201 (95.7)</td>
<td>115 (95.8)</td>
<td>86 (95.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>9 (4.3)</td>
<td>5 (4.2)</td>
<td>4 (4.4)</td>
<td>NS</td>
</tr>
<tr>
<td>Young adults should be educated on knowledge of STDs at school to prevent these diseases</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>199 (94.8)</td>
<td>116 (96.7)</td>
<td>83 (92.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>4 (1.9)</td>
<td>2 (1.7)</td>
<td>2 (2.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>7 (3.3)</td>
<td>2 (1.7)</td>
<td>5 (5.6)</td>
<td>NS</td>
</tr>
<tr>
<td>The person who don’t want to become infected with a STD should use condom when having sexual intercourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>178 (84.5)</td>
<td>110 (91.7)</td>
<td>68 (75.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>7 (3.3)</td>
<td>2 (1.7)</td>
<td>5 (5.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>25 (11.9)</td>
<td>8 (6.7)</td>
<td>17 (18.9)</td>
<td>NS</td>
</tr>
<tr>
<td>The person who do not want to be infected with a STD should use emergency contraception pills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>39 (18.6)</td>
<td>29 (19.2)</td>
<td>10 (11.1)</td>
<td>NS</td>
</tr>
<tr>
<td>Disagree</td>
<td>129 (61.4)</td>
<td>78 (65)</td>
<td>51 (56.7)</td>
<td>NS</td>
</tr>
<tr>
<td>Don’t know</td>
<td>42 (20)</td>
<td>19 (15.8)</td>
<td>23 (25.6)</td>
<td>NS</td>
</tr>
<tr>
<td>How worried are you that you might catch a STD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not worried at all</td>
<td>5 (2.4)</td>
<td>3 (2.5)</td>
<td>2 (2.2)</td>
<td>NS</td>
</tr>
<tr>
<td>Worried a little</td>
<td>19 (9.0)</td>
<td>14 (11.7)</td>
<td>5 (5.6)</td>
<td>NS</td>
</tr>
<tr>
<td>Worried a lot</td>
<td>160 (75.2)</td>
<td>86 (71.7)</td>
<td>74 (82.2)</td>
<td>NS</td>
</tr>
</tbody>
</table>

p<0.05 = significant difference (S) p>0.05 = non-significant difference (NS)

1Chi-square statistics compares male and female groups.
Table 6. Belief: Vietnamese students' belief of sexually transmitted diseases.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=210</td>
<td>N=120</td>
<td>N=90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n [%]</td>
<td>n [%]</td>
<td>n [%]</td>
<td></td>
</tr>
<tr>
<td>Do you believe that young adults are high-risk group catch a STD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>210 (100)</td>
<td>120 (100)</td>
<td>90 (100)</td>
<td>NS</td>
</tr>
<tr>
<td>No</td>
<td>143 (68.1)</td>
<td>87 (72.5)</td>
<td>56 (62.2)</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>20 (9.5)</td>
<td>12 (10.0)</td>
<td>8 (8.9)</td>
<td></td>
</tr>
<tr>
<td>Do you believe that STDs can be cured</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>210 (100)</td>
<td>120 (100)</td>
<td>90 (100)</td>
<td>S (p=0.01)</td>
</tr>
<tr>
<td>No</td>
<td>105 (50.2)</td>
<td>70 (58.3)</td>
<td>35 (39.3)</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>25 (12.4)</td>
<td>15 (12.5)</td>
<td>11 (12.4)</td>
<td></td>
</tr>
<tr>
<td>Do you believe that STDs can be prevented</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>209 (99.5)</td>
<td>120 (100)</td>
<td>90 (100)</td>
<td>NS</td>
</tr>
<tr>
<td>No</td>
<td>156 (74.3)</td>
<td>96 (80.0)</td>
<td>60 (66.7)</td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>4 (1.9)</td>
<td>2 (1.7)</td>
<td>2 (2.2)</td>
<td></td>
</tr>
</tbody>
</table>

p<0.05 = significant difference (S) p>0.05 = non-significant difference (NS)

¹Chi-square statistics compares male and female groups.
4. DISCUSSION

Results show that over-all knowledge about STD among the Vietnamese students is low. In this study the authors used a questionnaire divided into three main parts; knowledge, attitudes and beliefs. The study did not show any major differences between the genders regarding knowledge, attitude or beliefs.

4.1. Discussion of results

According to Kaljee et al. (24) the young Vietnamese of today live in a society developing very fast, a society trying to adapt to better meet the demands of the western world. This at the same time as trying to maintain traditional Vietnamese culture and norms can possibly cause an internal conflict among the young Vietnamese people when it comes to the issue of sexual health. At the same time as they might want to explore their sexuality it is also considered “bad” to want knowledge about sexual health and to engage in any kind of sexual activity before marriage.

An important part of Leininger’s theory of nursing about cultural care diversity and universality (22) discusses the culture related nursing care. She describes how culture related care can be defined as cognitively learned and transferred values, convictions and life patterns which helps, guides, supports or enhances the possibility of other individuals or groups to preserve well-being or health. For the young Vietnamese of today it means that the culture related care will based on two widely different cultures, which means that it is imperative for the health care personnel in Vietnam and for nurses in particular to be tolerant towards the young Vietnamese who seek advice and care and to keep in mind the conflict between cultures that exists.

Knowledge

The part which tested the students’ knowledge about STDs showed that out of a maximum of 26 correct answers the mean score among the students was only 9.49 and none of the students had answered all questions correctly.

The results of this study show that 84.4% of the students had heard of other STDs than HIV. This is a fairly high percentage but also shows that there are still students whose basic knowledge about STDs is alarmingly lacking. Compared to results found in other studies
knowledge is also lower in Vietnam than in other countries. In Malaysia 89.4% of students aged 15-20 years old had heard about STDs (5), while the number was 99% for secondary school students in Tanzania (6). In a study performed in Vietnam in 1999 it was found that 82.6% were aware that HIV is an STD. The result of the study performed by the authors among young Vietnamese students shows that this number has increased, as the percentage of students in this study who knew that HIV was an STD was 91%. Although it seems that a majority of the students here in Vietnam have basic knowledge about STDs it was also found in the study performed by the authors that the students’ knowledge is in fact very basic and is limited to simply being aware that STDs exist.

When asked to recognize some of the common causes of STDs no single alternative among ten available choices could be identified by a majority of the students. However, it was found that instead of being able to recognize the correct causes of STDs too many of the students had misconceptions such as the fact that bad hygiene among men and women can cause STDs. The misconception that bad hygiene in men and women can cause STDs was also found in another study performed in Vietnam by Lan et al. (17). In that study it was found that 11% of women were of the opinion that bad hygiene can cause STDs, this compared to the result in the study performed by the authors showing that the 32.8% of girls had the same misconception. Lan et al. (17) also found that the women in their study thought that having sex soon after delivery as well as having sex during menses could cause STDs, the same as was found in the study performed by the authors. This is similar to the results in studies performed in countries such as Tanzania, Ghana, India and Malaysia (5-7, 10).

According to WHO (3) Chlamydia and herpes are two of the more common STDs in the world, however in this study it was shown that as few as 3 of 210 students (1.4%) could identify Chlamydia as an STD and 3.3% (n=7) could identify herpes. Compared to Sweden, where Chlamydia is spreading alarmingly fast but awareness is fairly high (9), the knowledge about Chlamydia among Vietnamese students seems to be next to non-existing.

Regarding the sources of information about STDs it was found in the study performed by the authors that the single most common source of information about STDs was magazines, followed by the internet and television. In Tanzania the situation was similar, as the most common sources of information about STDs in the study performed by Mwambete et al. (6) were media, which included radio, television and the internet. According to the study performed by McManus and Dhar (10) similar results was found among Indian girls, where
the most common sources of information were the internet, media, friends and magazines. There seems to be a difference between the studies performed by the authors, and other studies performed in developing countries, compared to studies performed in developed countries. In studies performed in Sweden and Australia, countries which are more developed, young people seem to gather information about STDs from more reliable sources such as sexual health education in school, health workers, nurses and doctors (8, 9).

**Attitude**

In the study performed by the authors it was found that a majority of both the male and female students were worried about getting an STD. This is similar to the results found in other studies performed in Ghana and Australia (7, 8). The Vietnamese students also were of the opinion that more information about STD should be available to young people, which implies that young students in an urban city have an interest in learning more about issues of sexual health and STDs. As the study performed by the authors also show, the attitude towards STDs seems to be quite nonchalant and naïve since the students agree that STDs are not dangerous because they can be cured, at the same time as a majority of the students are worried about getting an STD.

Considering the misconceptions that still exist among the students, which have also been shown to exist in a previously performed study in Vietnam (17), and considering the fact that the sources of information of the Vietnamese students as shown in this study performed by the authors it would be advisable for Vietnam to improve sexual health education in schools in order to improve knowledge among the young people as well as getting rid of existing and far too common misconceptions.

The barriers that might exist to hinder this improvement in sexual health education is the fact that the Vietnamese society is not very tolerant of these issues, especially when it comes to giving information to girls who are supposed to be “innocent” and “pure” according to traditional culture in Vietnam (17, 18, 20).

**Belief**

A majority of the students in the study performed by the authors believe that young adults are a high-risk group to get STDs. According to the study performed by the authors the Vietnamese students are of the belief that lack of awareness is one of the reasons as to why young adults are a high-risk group to get STDs. Awareness is also one reason the Vietnamese students acknowledge as to how STDs can be prevented. At the same time that the students
believe that awareness is important the fact is that the students are lacking in both awareness and knowledge. Even though the students are lacking in awareness and knowledge there seems to exist a will to be aware and to be knowledgeable, which is yet another reason as to why the sexual health education needs to be further developed and improved.

Under the category of “knowledge” in the study performed by the authors it was shown that a common misconception among the Vietnamese students was that bad hygiene among men and women is a cause to STDs. This also appears to affect the students’ beliefs about STDs, as many of the students specified maintaining good hygiene among men and women as a way to prevent STDs. This is again an important reason to improve sexual health education in schools in Vietnam.

Gender differences
The results of the study performed by the authors show that there is no major difference in knowledge, attitudes and beliefs between male and female students in Vietnam. In another study performed in Ho Chi Minh City, Vietnam, by Nguyen et al. (19) it was found that there was a significant difference in knowledge between men and women, a finding that could possibly be explained by the fact that the study performed by Nguyen et al. was a qualitative study based on a small study population while the study performed by the authors was quantitative and based on a larger study population. A study quite similar to the one performed by the authors was the study performed in Malaysia by Anwar et al. (5). In that study no significant difference in knowledge was found between the male and female students who participated in the study.

Despite the fact there was no significant difference in knowledge, attitude or belief between the male and female Vietnamese students the authors are of the belief that improving the knowledge among young girls will be more difficult than improving knowledge among young boys. This due to the fact discussed earlier, that the Vietnamese society is currently not very accepting of girls being knowledgeable about and active in sexual activity (17, 20, 24).

4.3. Method discussion
This study was a descriptive and comparative cross-sectional study and a quantitative approach was used. This design was chosen in order to investigate a larger number of students in order to receive baseline data about the knowledge, attitudes and beliefs about STDs among youth in Vietnam and to be able to attempt a generalization. However, generalization could be
difficult since this study was performed in a big city, while most of the population resides in rural areas of the country (11). Despite this fact the authors feel that they have successfully managed to fulfill the aim of the study in obtaining and describing the knowledge, attitude and beliefs about STDs among Vietnamese adolescents in Ho Chi Minh City.

An advantage in performing the study at a public school was that this would represent a study population which would mirror the socioeconomic situation in the city as a whole. The authors believe that despite the fact that generalization for Vietnam is not possible; the result could instead be generalized to an urban city of larger size in Vietnam.

One of the major disadvantages with this study was that the government and society in Vietnam is not democratic. This has major implications for the feasibility of the study, since the subject of this study concerns the sexuality of the students which is a subject that is not socially accepted to discuss (24). In order to get more in-depth knowledge it would have been desirable for the authors to include questions concerning the sexual practice of the students. It is the authors’ belief that sexual practice affects the attitudes and beliefs as well as the knowledge about STDs among the students.

The data collection took place at Nhan Dao Vocational Secondary School and permission was obtained before the data collection was performed. However, the selection of which classes at the school which was going to participate was not made until the actual day of data collection. Classes were selected in order to achieve equal numbers of boys and girls, which lead to include the information technology classes and the fashion design classes.

The classrooms where data collection took place were small related to the number of students, resulting in very little privacy for each student when filling in the questionnaire. The authors’ strongly believe that this affected the answers obtained in the questionnaire, since there were some peeking at the neighboring student’s answers as well as discussion among the students. The time limit was set to 15 minutes. However, many of the students finished ahead of time and started talking among each other. This could possibly have affected the answers of the students who were not yet finished filling in the questionnaire, since they could have felt pressure to finish the questionnaires faster and not consider their answers as thoroughly as they might otherwise have done. Thus, there is a certain reservation regarding the validity of the results. However, not all students tried to cheat or peek at their neighbor and not all students seemed to have felt pressured to finish faster.
An inevitable problem which is difficult to come around is the fact that the study was performed in a country where the language spoken is a language which none of the authors had any knowledge in at all. The authors felt that it would have been advantageous to be able to answer question that arose during the data collection personally since it was discovered during data processing that some of the questions might not have been correctly understood.

The letter to the participants that was constructed in order to give information about the study and its purpose was not distributed at the time of data collection. Instead the same information was conveyed with the help of the Vietnamese supervisor who was present at data collection. It is the authors’ assumption that all the students received the same oral information as the information available in the originally written form.

Regarding the instrument used in this study the authors are of the belief that it yielded valid results. However, the questionnaire could possibly have benefited from a more thorough testing in a smaller group of students, since there were some difficulties among the students in understanding one or two of the questions. The few students who actually had questions regarding the meaning of those questions were able to answer the question properly after the Vietnamese translator had explained the purpose of the questions. The authors are thus not of the opinion that the result of the study was affected directly, but if further research should be performed using the same instrument the questions that were slightly unclear will benefit from a rephrasing.

Considering the amount of data collected in this study it might also have been advisable to lower the level of significance from 95% to 99%. The authors found some significant differences in this study using the 95%-level of significance that might have been the result of the vast amount of data collected. In light of this the authors believe that should this study be repeated in similar form, the level of significance should be lowered in order to find more valid results.

Furthermore there was a lack of communication and background information regarding the site of testing. The Nhan Dao Vocational Secondary School had not, as the authors believed, an age limit to the students who attended the school. Had the authors been aware of this fact the inclusion and exclusion criterias would have been further specified prior to performing the actual study in Vietnam. As it is the authors were forced to change the criterias only after having reviewed some of the questionnaires collected at the school. This could have been avoided had a more thorough preparation been performed.
4.4. Clinical implications

The results of the study performed by the authors show that young adults in Vietnam are lacking in knowledge about STDs, as well as having several misconceptions about STDs. The study can thus be used as a base to develop the sexual health education in schools as well as the information spread about STDs by the government. The most striking thing when analyzing the results of the study performed by the authors is that there exist so many misconceptions among the young students, leading to a false sense of knowledge. The same as has been found in other studies performed in Vietnam on the same subject (17, 18, 21). This information should be used and given special attention when developing information programs about STD.

The results of this study can also be applied to health care in Sweden, especially for nurses working in youth clinics and midwives who encounter young immigrants from Vietnam. Drawing parallels from Leininger’s Theory of Cultural Care Diversity and Universality it is important to be aware that different people come from different cultural backgrounds, which gives each person an individual need of information and care as well as the fact that there exists individual expectations of what a nurse can do for that person based on the cultural background that the person was shaped in.

When encountering young Vietnamese immigrants it is important to be aware that their knowledge about STDs and about sexual health might be limited as well as wrong on many accounts. Nurses in Sweden have to carefully investigate what the young immigrant actually knows and to base information about sexual health with regard to that knowledge level as well as the traditional Vietnamese cultural beliefs and attitudes towards sexual health in order to best suit the expectations and needs of the Vietnamese youth.

5. CONCLUSION

The Vietnamese students at Nhan Dao Vocational School in Ho Chi Minh City, Vietnam, had low knowledge about STDs and the students’ attitudes to and beliefs about STDs showed that there exists a lot of misconceptions about the subject. The study did not show any major differences between the genders regarding knowledge, attitude or beliefs. Further research about young people’s practice needs to be performed in order to receive a wider perspective on young Vietnamese people’s knowledge, attitudes and beliefs. It is also important in order
to be able to draw conclusions concerning whether knowledge and attitudes are related to sexual practice.

6. ACKNOWLEDGEMENT

We would like to thank the International programme Office for Education and Training, SIDA, Sweden to give us the Linnaeus-Palme Scholarship to carry out this study.

We would also like to thank supervisor Pranee Lundberg, Associate Professor at the Department of Public Health and Caring Sciences, for all help during the work with the thesis. Further thanks to Ms Trieu Thi Ngoe Thu, Head of the Department of Midwifery, for helping with the collection, translating and analyzing of data during the project in Vietnam.
7. REFERENCES


Appendix 1a. Questionnaire in English.

QUESTIONNAIRE ON
KNOWLEDGE, ATTITUDE AND BELIEF OF SEXUALLY TRANSMITTED DISEASES
AMONG STUDENTS AT NHAN DAO VOCATIONAL SECONDARY SCHOOL
IN HO CHI MINH CITY, VIET NAM

The aim of this survey to examine knowledge, attitude and belief of sexually transmitted diseases among students of vocational training schools; we look forward your participation to answer the following questionnaire. The information that you answer will be keep confidential. The database from the results will be used to improve effectively the method of education, communication to young adults. We appriciate the voluntary of your participation. However, you could refuse to participate this survey if you don’t want to do. Thank you very much.

Please answer the following questions.

Please fill in the blank or mark “x” sign into the box “□” that you chose

PART I: DEMOGRAPHIC CHARACTERISTICS

1.Age (years): …………………

2.Gender: □ male □ female

3.Year school: □ first year □ second year □ high school

4.Religion: □ Non religion □ Buddist
□ Catholic □ Protestan
□ Others:……………………

5.Marital status: □ single □ have girl friend □ have boy friend
□ married □ unmarried couple

6.Allowance from home or income every month: ………………….. (vn dong)

7.Extra job: □ no
□ Yes: (please specify)………………………………………………
8. How long have you stayed at Ho Chi Minh city? : ………………………………………

9. Whom do you live with?:
   - □ parents/family
   - □ to live together with friends
   - □ by yourself
   - □ others (please specify)
   : ………………………

PART II: KNOWLEDGE, ATTITUDE AND BELIEF OF SEXUALLY TRANSMITTED DISEASES (STDs)

KNOWLEDGE

10. Have you heard about infections or diseases other than HIV that one can get through sex?
   - □ 1- Yes
   - □ 2- No
   - □ 3- Don’t know

11. Please tell what are possible “causes” of sexually transmitted infection? (You can mark more than one)
   - □ 1- Bacteria
   - □ 2- Virus
   - □ 3- Fungus
   - □ 4- Bad hygiene of woman
   - □ 5- Bad hygiene of man
   - □ 6- Using unclean water
   - □ 7- Sex during menstruation
   - □ 8- Having sex soon after delivery
   - □ 9- Blood transfusion
   - □ 10- Infected swimming pool water
   - □ 11- Don’t know

12. Please choose which diseases are sexually transmitted diseases: (You can mark more than one)
   - □ 1- Tuberculosis
   - □ 2- Gonorrhea
   - □ 3- Syphilis
   - □ 4- HIV/AIDS
   - □ 5- Hepatitis B
   - □ 6- Hepatitis C
   - □ 7- Chlamydia
   - □ 8- Herpes
   - □ 9- Don’t know
   - □ 10- Others:……………………

13. What are routes of sexually transmitted diseases? (You can mark more than one)
   - □ 1- Sexual intercourse
   - □ 2- Blood transfusion
   - □ 3- Sharing needle
   - □ 4- Sharing clothes, things
   - □ 5- Sharing foods
   - □ 6- Mother to child
14. What are signs and symptoms of sexually transmitted infection?  
(You can mark more than one)

- 1- Abdominal pain
- 2- Discharge from penis/vulva
- 3- Itching in genital area
- 4- Burning pain on uniration
- 5- Pain during intercourse
- 6- Genital ulcers or open sores
- 7- Swellings in the genital area
- 8- Blood in urine
- 9- Failure to pass urine
- 10- Loss of weight
- 11- Weakness
- 12- Don’t know
- 13- Others:…………………………

15. Do you think it is possible for a man to have a sexually transmitted infection (other than HIV) but not have symptoms?

- 1- Yes
- 2- No
- 3- Don’t know

16. Do you think it is possible for a woman to have a sexually transmitted infection (other than HIV) but not have symptoms?

- 1- Yes
- 2- No
- 3- Don’t know

17. What are complication of STDs if untreated? (You can mark more than one)

- 1- Infertility
- 2- Premature birth
- 3- Stillbirth
- 4- Ectopic pregnancy
- 5- Miscarriage
- 6- Cervix cancer
- 7- Don’t know
- 8- Others (please specify):…………

18. How do you know the information/knowledge about sexually transmitted diseases?
(You can mark more than one)

- 1- Friends
- 2- Family
- 3- Youth club
- 4- School / College
- 5- Television
- 6- Radio
- 7- Magazine
- 8- Internet
19. Have you heard any the following people told you that they had a sexually transmitted disease other than HIV? (You can mark more than one)

- [ ] 1- Friend
- [ ] 2- Parents
- [ ] 3- Brother / sister
- [ ] 4- Other family member
- [ ] 5- Spouse/ live-in partner
- [ ] 6- Sexual partner/ lovers
- [ ] 7- Others:...........................................

ATTITUDE

20. Sexually transmitted diseases are not dangerous diseases because it can be cured

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

21. It’s necessary to avoid the person who get sexually transmitted infection because they can transmit disease to another person.

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

22. Young adults who get sexually transmitted infection must be treated.

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

23. If young adults are not sure about symptoms of STDs they must contact directly with health personal.

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

24. Young adults should get information/knowledge about STDs in order to prevent these diseases.

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

25. Young adults should be educated on knowledge of STDs at school to prevent these diseases.

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

26. The person who do not want to become infected with a sexually transmitted infection should use condom when having sex intercourse.

- [ ] 1- Agree
- [ ] 2- Disagree
- [ ] 3- Don’t know

27. The person who do not want to become infected with a sexually transmitted infection should use emergency contraception pills
28. How worried are you that you might catch a sexually transmitted infection?

☐ 1- Not worried at all    ☐ 2- Worried a little    ☐ 3- Worried a lot    ☐ 4- Don’t know

BELIEF

29. Do you believe that young adults are high risk group getting STDs?

☐ 1- Yes    ☐ 2- No    ☐ 3- Don’t know

If yes, why? (please specify)........................................................................................................

If no, why? (please specify)
.................................................................................................................................

30. Do you believe that STDs can be cured?

☐ 1- Yes    ☐ 2- No    ☐ 3- Don’t know

If yes, why? (please specify)........................................................................................................

If no, why? (please specify)
.................................................................................................................................

31. Do you believe that STDs can be prevented?

☐ 1- Yes    ☐ 2- No    ☐ 3- Don’t know

If yes, why? (please specify)........................................................................................................

If no, why? (please specify)
.................................................................................................................................

Thank you for your participation
Appendix 1b. Questionnaire in Vietnamese.

BÀNG CÂU HỎI NGHIÊN CỨU VỀ
KIẾN THỨC, THÁI DỘ VÀ NIÊM TIN VỀ BỆNH LÀY TRUYỀN QUA ĐƯỜNG TÌNH DỤC
CỦA HỌC SĨNG TRƯỜNG ĐẠY NGHỆ NHÂN ĐẠO
THÀNH PHỐ HÒ CHÍ MINH, VIỆT NAM


Xin vui lòng trả lời các câu hỏi sau đây.

Vui lòng điền vào chỗ trống ……….. hoặc đánh dấu “x” vào ô “□” mà bạn chọn

PHẦN I: THÔNG TIN CÁ NHÂN

1. Tuổi: …………………

2. Giới tính: □ nam □ nữ

3. Trình độ học vấn: □ năm thứ nhất □ năm thứ hai □ học vấn hóa

4. Tôn giáo: □ Không □ Phật giáo
□ Thien chua giao □ Tin lành
□ Khac: ………………………

5. Tinh trạng hôn nhân: □ độc thân □ có bạn gái □ có bạn trai
□ có gia đình □ sống chung không đảm cưới

6. Tiền trợ cấp từ gia đình hoặc thu nhập mới tháng: …………………… (VN đồng)

7. Việc làm thêm: □ không
□ có (xin ghi ra):……………………………

8. Bạn ở TP. Hồ Chí Minh bao lâu?:………………………………
9. Bạn ở cùng với ai: □ cha mẹ/gia đình □ sống với bạn bè □ sống một mình
□ Khác: …………………

PHẦN II: KIẾN THỨC, THÁI DẠO VÀ NIỆM TIN VỀ BỆNH LÃY TRUYỀN QUA ĐƯỜNG TINH DỨC

KIẾN THỨC

10. Bạn có bao giờ nghe về các bệnh nhiễm trùng qua đường tình dục ngoài nhiễm HIV?
□ 1- Có □ 2- Không □ 3- Không biết

□ 1- Vi khuẩn □ 2- Virus □ 3- Nhiễm nấm □ 4- Phủ nướu vế sinh kém
□ 5- Nam giới vế sinh kém □ 6- Sử dụng nước không sạch □ 7- Giao hợp khi có kinh nguyệt
□ 8- Giao hợp sớm sau sanh □ 9- Truyền máu □ 10- Nước hối bồi bị nhiễm trùng
□ 11- Không biết

12. Theo bạn bệnh nào sau đây là bệnh lây truyền qua đường tình dục:
(bạn có thể chọn nhiều câu trả lời).
□ 1- Bènh lao □ 2- Bènh lâu □ 3- Bènh giang mai □ 4- Bènh HIV/AIDS
□ 5- Bènh viêm gan siêu vi B □ 6- Bènh viêm gan siêu vi C □ 7- Chlamydia
□ 8- Herpes □ 9- Không biết □ 10- Khác : …………………

13. Đường lây truyền bệnh nhiễm trùng qua đường tình dục là gì?
(bạn có thể chọn nhiều câu trả lời).
□ 1- Giao hợp □ 2- Truyền máu □ 3- Dùng chung kim tiêm □ 4- Dùng chung quan áo, đồ vật
□ 5- Dùng chung thực ăn □ 6- Từ mẹ sang con □ 7- Không biết □ 8- Khác: …………………
14. Các dấu hiệu và triệu chứng của bệnh lây truyền qua đường tình dục?
(bạn có thể chọn nhiều câu trả lời).

- Đau bụng
- Ngứa vùng sinh dục
- Đau khi giao hợp
- Sưng vùng sinh dục
- Tiểu khó
- Cảm thấy yếu ớt
- Khác :.................................

15. Bạn có nghĩ rằng bạn có thể bị bệnh lây truyền qua đường tình dục (ngoại nhiễm HIV) mà không có triệu chứng?

- Có
- Không
- Không biết

16. Bạn có nghĩ rằng phụ nữ có thể bị bệnh lây truyền qua đường tình dục (ngoại nhiễm HIV) mà không có triệu chứng?

- Có
- Không
- Không biết

17. Bệnh lây truyền qua đường tình dục gây biến chứng gì nếu không được điều trị?

- Vô sinh
- Sanh non
- Thai chết trong tử cung
- Thai ngoài tử cung
- Sảy thai
- Không biết
- Khác :.................................

18. Bạn biết thông tin/ kiến thức về bệnh lây truyền qua đường tình dục bằng cách nào?
(bạn có thể chọn nhiều câu trả lời).

- Bạn bè
- Gia đình
- Câu lạc bộ thành niên
- Trường học
- Ti vi
- Báo / sách
- Bệnh viện
- Không biết

19. Bạn có bao giờ nghe những người sau đây nói với bạn rằng họ đã bị bệnh lây truyền qua đường tình dục (ngoại trừ nhiễm HIV)?
(bạn có thể chọn nhiều câu trả lời).

- Bạn bè
- Gia đình
- Trường học
- Radio
- Báo / sách
- Bệnh viện
- Không biết
THÁI ĐΌ

20. Bệnh lây truyền qua đường tình dục không nguy hiểm bởi vì có thể chữa lành được?
   □ 1- Đồng ý   □ 2- Không đồng ý   □ 3- Không biết

21. Cận tránh người bị bệnh lây truyền qua đường tình dục bởi vì có thể lây bệnh qua người khác
   □ 1- Đồng ý   □ 2- Không đồng ý   □ 3- Không biết

22. Thanh niên bị bệnh lây truyền qua đường tình dục phải được điều trị
   □ 1- Đồng ý   □ 2- Không đồng ý   □ 3- Không biết

23. Nếu thanh niên không biết về triệu chứng của bệnh lây truyền qua đường tình dục thì nên hỏi trực tiếp nhân viên y tế.
   □ 1- Đồng ý   □ 2- Không đồng ý   □ 3- Không biết

24. Thanh niên nên biết thông tin/khiển thức về bệnh lây truyền qua đường tình dục để phòng ngừa các bệnh này.
   □ 1- Đồng ý   □ 2- Không đồng ý   □ 3- Không biết

25. Thanh niên nên được giáo dục về bệnh lây truyền qua đường tình dục tại trường để phòng ngừa các bệnh này.
   □ 1- Đ đồng ý   □ 2- Không đồng ý   □ 3- Không biết

   □ 1- Đồng ý   □ 2- Không đồng ý   □ 3- Không biết

27. Người mà không muốn bị nhiễm bệnh lây truyền qua đường tình dục nên sử dụng thuốc ngừa thai khẩn cấp sau khi có quan hệ tình dục.
   □ 1- Đ đồng ý   □ 2- Không đồng ý   □ 3- Không biết

28. Bạn lo lắng ra sao nếu bạn bị nhiễm bệnh lây truyền qua đường tình dục?
   □ 1- Không lo lắng gì cả   □ 2- Lo lắng ít
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4- Không biết</td>
<td></td>
</tr>
<tr>
<td>3- Lo lắng nhiều</td>
<td></td>
</tr>
</tbody>
</table>

**NIỄM TIN**

29. Bạn có tin rằng thanh niên là nhóm người có nguy cơ cao bị lây nhiễm bệnh lây truyền qua đường tình dục?

- 1- Có
- 2- Không
- 3- Không biết

Nếu có, tại sao? (xin viết ra)……………………………………………………………………………………………………

……………….

Nếu không, tại sao (xin viết ra)……………………………………………………………………………………………………

……………….

30. Bạn có tin rằng bệnh lây truyền qua đường tình dục có thể được chữa lành?

- 1- Có
- 2- Không
- 3- Không biết

Nếu có, tại sao? (xin viết ra)……………………………………………………………………………………………………

……………….

Nếu không, tại sao (xin viết ra)……………………………………………………………………………………………………

……………….

31. Bạn có tin rằng bệnh lây truyền qua đường tình dục có thể phòng ngừa được?

- 1- Có
- 2- Không
- 3- Không biết

Nếu có, tại sao? (xin viết ra)……………………………………………………………………………………………………
Nếu không, tại sao (xin viết ra)...

Cảm ơn sự tham gia của bạn
Appendix 2. Letter to participants.

Sexually Transmitted Diseases among adolescents in Vietnam: Knowledge, attitudes and beliefs

Dear participant,

You are hereby requested to participate in a study to investigate knowledge, attitudes and beliefs of sexually transmitted diseases (STDs) among Vietnamese adolescents.

We are two nursing students from Uppsala University, Sweden who are here in Vietnam as exchange students to execute this project. The project is collaboration between the Department of Public Health and Caring Sciences, Uppsala University in Sweden and the Faculty of Nursing and Medical Technology, University of Medicine and Pharmacy in Ho Chi Minh City, Vietnam.

You are asked to participate voluntarily in this study by answering a questionnaire which that consists of three parts with total 28 questions. It will take approximately 10 minutes to fill in the questionnaire and put it a box. The answers will be treated anonymously and handled with confidentiality. You are free to interrupt your participation at any time.

We appreciate your participation and it is valuable for our study. Thank you for your participation.

Annabel Sjöqvist
Sofia Göthlin

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