Results

I: The general characteristics of the studied population.

Table 1. Demographic data of the studied students

Characteristics	Percentage (N = 2,697)
1. **Sex**	
male	39.2 (N = 1,056)
female	60.8 (N = 1,641)
2. **Age (years)**	
less than 20	54.9
20 - 24	44.4
25 - 29	0.6
more than 29	0.1
average	19.6 ± 1.7
3. **Religion**	
Buddhist	91.9
Muslim	7.1
Others	1.0
4. **Duration of education**	
first year	36.2
second year	18.0
third year	19.6
forth year	19.4
fifth year	6.7
sixth year	0.1
5. **Programs of study**	
Social science	28.8
Management science	21.6
Pure science	23.8
Technological science	25.8
6. **Parent status**	
living together	84.3
father and/or mother dead	9.6
divorce	4.6
remarried	1.2
others	0.3

Characteristics	Percentage (N = 2,697)
7. Income from parents (bahts)	
less than 1,000	32.2
1,000 - 2,000	58.8
2,001 - 3,000	8.1
3,001 - 4,000	0.5
more than 4,000	0.4
8. Income from part time job (bahts) (N = 112)	
less than 1,000	79.5
1,000 - 2,000	15.2
2,001 - 3,000	3.6
3,001 - 4,000	1.7

Of the 2,697 students who had completed the questionnaire, there were 1,056 males (39.2%) and 1,641 females (60.8%). Overall, average age was 19.6 ± 1.7 years (range 14-29 years). Most of them (91.9%) were buddhists and had enough financial support. It was also found that most of their parents (84.3%) were living together and only 5.8% were divorced or remarried.

II. Knowledge about Reproductive Health

The knowledge about reproductive health was described by the student themselves for subjective evaluation in Table 2. Most of them (74.2%) formed in mind that they have moderate level about reproductive health.

Table 2. Distribution of the students' knowledge about reproductive health (per cent)

Levels of knowledge	Male (N = 1,056)	Female (N = 1,641)	Total (N = 2,697)	P value
None	1.8	1.9	1.9	NS
Little	4.4	6.7	5.8	S
Moderate	66.4	79.1	74.2	S
Much	27.4	12.3	18.1	S
Total	100.0	100.0	100.0	

The knowledge about different methods of contraception was described by the student themselves in Table 3. Most of the male students (81.1%) knew how to use condom as the

predominant method, whereas the female students (40.5%) were widely accepted the use safety period. The knowledge about different methods of contraception was not the same between each method. The first three methods which were understood how to use among male students were made up of condom, withdrawal, and safety period. And the first three methods which were understood how to use among female students were made up of safety period, condom, and pills. Including both male and female student, the condom was the most common preference, the second and the third were safety period and pills respectively.

Table 3. Distribution of the students' knowledge of different methods of contraceptions (per cent)

Methods of contraception	levels of knowledge	Male (N = 1,007)	Female (N = 1,580)	Total (N = 2,587)	P value
Condom	How to use	81.1	35.1	53.0	S
	Only name	17.8	62.3	45.0	S
	Don't know	1.1	2.6	2.0	S
Pills	How to use	42.3	34.8	37.5	S
	Only name	52.5	61.0	58.0	S
	Don't know	5.2	4.2	4.5	NS
DMPA	How to use	24.7	20.7	22.1	S
	Only name	65.3	66.4	66.0	NS
	Don't know	10.0	12.9	11.9	S
IUD	How to use	24.3	16.6	19.3	S
	Only name	66.9	71.4	69.8	S
	Don't know	8.9	12.0	10.9	S
Safe period	How to use	54.6	40.5	45.7	S
	Only name	39.1	46.0	43.5	S
	Don't know	6.3	13.5	10.8	S
Sterilization	How to use	42.4	27.5	32.9	S
	Only name	54.8	66.1	62.0	S
	Don't know	2.8	6.4	5.1	S
Implantation	How to use	15.2	8.5	10.9	S
	Only name	63.0	59.3	60.6	NS
	Don't know	21.8	32.2	28.5	S
Vaginal methods	How to use	14.7	5.2	8.6	S
	Only name	50.8	43.2	45.9	S
	Don't know	34.5	51.6	45.5	S
Withdrawal	How to use	58.9	10.0	28.5	S
	Only name	33.0	47.4	42.0	S
	Don't know	8.0	42.5	29.5	S

The knowledge about STD was listed in Table 4. The first three STD which the male students knew some were gonorrhea (56.1%), Nongonococcal urethritis (41.2%), and syphilis (40.8%), while for the female students were gonorrhea (39.6%), syphilis (35.8%), and nongonococcal urethritis (28.0%).

Table 4. Distribution of the students' knowledge of sexually transmitted diseases (per cent)

Diseases	Levels of knowledge	Male (N = 992)	Female (N = 1,571)	Total (N = 2,563)	P value
Syphilis	Some	40.8	35.8	37.7	S
	Only name	55.0	58.6	57.2	NS
	Don't know	4.2	5.6	5.1	NS
Gonorrhea	Some	56.1	39.6	46.0	S
	Only name	41.1	57.1	50.9	S
	Don't know	2.8	3.3	3.1	NS
Non-gonococcal urethritis	Some	41.2	28.0	33.1	S
	Only name	54.5	61.7	58.9	S
	Don't know	4.3	10.3	8.0	S
Genital herpes	Some	30.2	27.1	28.3	NS
	Only name	60.4	56.8	58.2	NS
	Don't know	9.4	16.1	13.5	S
Chancroid	Some	32.4	26.6	28.8	S
	Only name	59.1	56.0	57.2	NS
	Don't know	8.5	17.4	14.0	S
Condyloma acuminata	Some	30.5	20.8	24.5	S
	Only name	56.7	54.6	55.4	NS
	Don't know	12.8	24.6	20.1	S
Molluscum contagiosum	Some	20.4	17.3	18.5	NS
	Only name	62.2	56.0	58.4	S
	Don't know	17.4	26.7	23.1	S
Venereal bubo	Some	37.1	27.1	31.0	S
	Only name	56.9	60.6	59.2	NS
	Don't know	6.0	12.3	9.8	S

The sources of information about reproductive health was shown in Table 5. The most common sources of information came from books (83.1%), magazine (78.5%), T.V. and Video (73.2%). The smaller portion was their friends and teachers. It hits sharply that the smallest source of information was the health personnels, their parents, and their relatives.

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	Only name	55.0	58.6	57.2	NS
	Don't know	4.2	5.6	5.1	NS
Gonorrhea	Some	56.1	39.6	46.0	S
	Only name	41.1	57.1	50.9	S
	Don't know	2.8	3.3	3.1	NS
Non-gonococcal urethritis	Some	41.2	28.0	33.1	S
	Only name	54.5	61.7	58.9	S
	Don't know	4.3	10.3	8.0	S
Genital herpes	Some	30.2	27.1	28.3	NS
	Only name	60.4	56.8	58.2	NS
	Don't know	9.4	16.1	13.5	S
Chancroid	Some	32.4	26.6	28.8	S
	Only name	59.1	56.0	57.2	NS
	Don't know	8.5	17.4	14.0	S
Condyloma acuminata	Some	30.5	20.8	24.5	S
	Only name	56.7	54.6	55.4	NS
	Don't know	12.8	24.6	20.1	S
Molluscum contagiosum	Some	20.4	17.3	18.5	NS
	Only name	62.2	56.0	58.4	S
	Don't know	17.4	26.7	23.1	S
Venereal bubo	Some	37.1	27.1	31.0	S
	Only name	56.9	60.6	59.2	NS
	Don't know	6.0	12.3	9.8	S

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Table 5. Distribution of the students'sources of information about reproductive health (per cent)

Sources	Male (N = 1,056)	Female (N = 1,541)	Total (N = 2,697)	P value
Books	82.3	83.6	83.1	NS
Magazines	80.3	77.5	78.5	NS
T.V.,Video	79.3	59.3	73.2	S
Friends	73.8	56.2	63.0	S
Teachers	57.4	62.2	60.3	S
Health personnels	29.5	31.9	31.0	NS
Parents	15.0	23.8	20.4	S
Relatives	17.0	17.1	17.1	NS
Others	7.0	1.5	3.8	S

III. Attitudes towards Reproductive Health

The opinion about the age for a man to get married, the male and female students get along together with the age of 25-30.

Table 6. Distribution of the students' assessment of the optimum age for a man to get married (per cent)

Optimum age (year)	Male (N = 1,023)	Female (N = 1,635)	Total (N = 2,658)	P value
15 - 17	1.5	0.2	0.7	S
18 - 20	1.7	0.6	1.0	S
21 - 24	23.8	13.1	17.2	S
25 - 30	64.7	71.1	68.7	S
31 or more	8.3	15.0	12.4	S
Total	100.0	100.0	100.0	

The opinion about the age for a woman to get married, the male and female students get along together with the age of 21-24.

Table 7. Distribution of the students' assessment of the optimum age for a woman to get married (per cent)

Optimum age (year)	Male (N = 1,025)	Female (N = 1,635)	Total (N = 2,660)	P value
15 - 17	2.5	0.6	1.3	S
18 - 20	8.9	1.5	4.3	S
21 - 24	69.1	70.9	70.2	NS
25 - 30	18.5	26.2	23.2	S
31 or more	1.0	0.8	0.9	NS
Total	100.0	100.0	100.0	

For the opinion of man's premarital sex, the large proportion of male students (63.1%) agree with it, while the large proportion of the female students differed in the opinion.

Table 8. Distribution of the students' attitudes towards men's premarital sexual intercourse (per cent)

Attitudes	Male (N = 1,014)	Female (N = 1,597)	Total (N = 2,611)	P value
Agree	63.1	29.2	42.5	S
Disagree	18.4	49.7	37.5	S
Not sure	18.5	21.1	20.0	NS
Total	100.0	100.0	100.0	

For the opinion of woman's premarital sex, the large proportion of male students (63.4%), and female students (87.1) disagreed with it.

Table 9. Distribution of the students' attitudes towards women's premarital sexual intercourse (per cent)

Attitudes	Male (N = 1,014)	Female (N = 1,597)	Total (N = 2,611)	P value
Agree	19.0	3.8	9.7	S
Disagree	63.4	87.1	77.9	S
Not sure	17.6	9.1	12.4	S
Total	100.0	100.0	100.0	

IV. Experience relating to Reproductive Health

Most of male students had (87.3%) experiences in masturbation in contrasts with female students (4.4%). Nearly half of the male students had passed through the sexual intercourse, more than half (61.6%) experienced with petting. The practicing contraception was 26.6% among male students, while some not many (2.0%) among female students. The sexual partners of male students had got pregnancy 3.7%, and the female students themselves were only o.6%. The comparison of various reproductive health experiences was shown in Table 10.

Table 10. Distribution of the students' reproductive health experiences (per cent)

Experiences	Male (N = 985)	Female (N = 1,543)	Total (N = 2,528)	P value
Petting	61.6	10.2	34.0	S
Masturbation	87.3	4.4	42.7	S
Practicing contraception	26.6	2.0	13.4	S
Pregnancy before marriage*	3.7	0.6	2.0	S
Taking abortion	3.0	0.6	1.7	S
Having STD	4.7	0.6	2.5	S
Having sexual intercourse	43.5	1.7	18.0	S
Irregular menses	-	60.7	-	
Dysmenorrhea	-	65.2	-	

* Male students' partners and Female students

The distribution of students' sexual partners were shown in Table 11. The large proportion of sexual partners of the male students were prostitutes only (36.9%), prostitutes combined with girlfriends (25.5), girlfriends only (21.4%). The male students (412 persons) had premarital sexual intercourse in the large proportion more than the female students (22 persons).

Table 11. Distribution of the students' sexual partners (per cent)

Sexual partners	Male (N = 412)	Female (N = 22)	Total (N = 434)	P value
Girlfriend/boyfriend	21.4	86.4	24.7	S
Prostitute	36.9	-	35.0	
Girlfriend/boyfriend +prostitute	25.5	-	24.2	
Others	16.2	13.6	16.1	NS
Total	100.0	100.0	100.0	

The preference of contraceptive methods among the premarital sex group was listed in Table 12. The condom usage is the most popular method both regular and occasion among male students more than female students. Whereas oral contraception and safety period were widely accepted among the female students more than male students. However the coitus interruptus was moderately practiced among both sexes.

Table 12. Distribution of the students' preferred methods of contraceptions when having sexual intercourse (per cent)

Methods	Male (N = 421)	Female (N = 24)	Total (N = 407)	P value
Nothing	14.5	8.3	14.2	NS
Condom (occasionally)	47.9	26.1	46.7	S
Condom (regularly)	39.1	17.4	37.8	S
Oral contraception	13.5	47.8	15.3	S
Safe period	29.9	47.8	31.0	NS
Coitus interruptus	28.4	26.1	28.3	NS
Others	1.8	-	1.7	

The opinions about occurrences of unplanned premarital pregnancy were shown in Table 13. The parents and doctors seem to be influential persons among the students to search for consultation.

Table 13. Distribution of the students' decision when unplanned premarital pregnancy occurred (per cent)

Decision	Male (N = 1,012)	Female (N = 1,624)	Total (N = 2,636)	P value
Getting married	14.1	17.4	16.1	S
Taking abortion	10.5	6.3	7.9	S
Consult their friends	6.1	4.4	5.1	NS
Consult their parents	47.4	53.2	51.0	S
Consult doctors	43.3	37.5	39.8	S
Others	2.1	0.5	1.1	S

The opinions about occurrences of symptoms involving genital organs were shown in Table 14. The doctors seem to be most influential persons among the students to search for consultation. The male students expected their friends to be the second priority of consultation, while the female students looked forward to their parents.

Table 14. Distribution of the students' preferred methods of dealing with symptoms involving genital organs (per cent)

Methods	Male (N = 1,013)	Female (N = 1,582)	Total (N = 2,595)
Consult a pharmacist	6.5	0.3	2.7
Wait and see	4.3	2.3	3.1
Consult the parents	6.8	18.1	13.7
Consult friends	13.3	5.9	8.8
Consult a teacher	3.0	3.2	3.1
Consult a doctor	66.1	70.2	68.6
Total	100.0	100.0	100.0

The problems to be concerned by the students were listed in Table 15. The troubles of both male and female students were the process of studying. The second priority for the male students were which related to the finance and heterosexual relationship, while for the female students were which related to the finance and health.

Table 15. Distribution of problems that the students concern (per cent)

Problems	Male (N = 982)	Female (N = 1,605)	Total (N = 2,587)	P value
Studying	55.4	67.0	62.6	S
Finance	34.0	20.3	25.5	S
Health	19.9	18.4	19.0	NS
Family	17.5	14.6	15.7	S
Heterosexual relationship	20.1	11.5	14.7	S
Others	3.9	2.6	3.1	NS

Table 16. Distribution of the persons influencing the students' decision for solving their problems (per cent)

Influencing persons	Male (N = 1,009)	Female (N = 1,624)	Total (N = 2,633)	P value
Friends	60.9	57.4	58.7	NS
Parents	48.2	56.8	53.5	S
Relatives	14.9	17.1	16.2	NS
Teachers	8.8	5.4	6.7	S
Health personnels	6.7	5.4	5.9	NS
Others	6.7	2.5	4.1	S

V. Awareness, concerns and KAP on AIDS

The large proportion of both male and female students were already awared and concerned about AIDS. In general, the male students had higher level of awareness and concern rather than female students. The list of awareness and concern were shown in Table 17.

Table 17. Distribution of the students' awareness and concern about AIDs (per cent)

Items	Male (N = 1,030)	Female (N = 1,638)	Total (N = 2,668)	P value
heard of AIDS	90.4	89.4	89.8	NS
AIDS is a communicable disease	96.0	95.0	95.4	NS
AIDS is a life threatening disease	70.3	77.4	74.7	S
seek information about AIDS	74.1	70.8	72.1	NS
AIDS is a new problem of adolescents	75.6	75.0	75.3	NS

The positive response of knowledge and attitudes about AIDS were listed in Table 18. Most of the students already knew about biomedical fact and modes of Transmission of AIDS. However the false attitudes were rather high proportion.

Table 18. Distribution of the students' positive response of knowledge and attitudes on AIDS (per cent)

Items	Male (N = 1,030)	Female (N = 1,638)	Total (N = 2,668)	P value
Biomedical fact				
AIDS decrease the body immune response	93.3	92.0	92.5	NS
infected persons may have no symptom and sign	56.8	47.8	51.3	S
infected persons cannot be identified by general appearance	70.2	68.2	69.0	NS
AIDS is a curable disease	73.8	78.3	76.5	S
Mode of transmission				
heterosexual intercourse with an infected person	91.1	93.0	92.3	NS
by anal sex	77.6	74.5	75.8	NS
by oral sex	45.3	44.0	44.5	NS
share the contaminated needle	97.4	97.5	97.5	NS
vertical transmission from infected mother to her baby	90.4	92.8	91.9	S
True-False attitudes				
casual contact such as hugging or grasping hand	93.0	94.0	93.6	NS
contact through air such as cough or sneeze	76.1	73.6	74.6	NS
can get AIDS by using toilet	75.6	61.5	67.0	S
social contact through food preparation and eating utensils	75.1	71.8	73.1	NS
can get AIDS from mosquitoes	57.5	44.6	49.6	S
can get AIDS from blood transfusion	97.4	97.8	97.7	NS

Table 19 showed high proportion of the positive response of the preventive behaviors in the item of condom usage. In contrast with the negative response and misunderstanding, high proportion of the students seemed to have wrong direction about choosing the expensive prostitutes, the prostitutes who had regular check up, the girls who had sex for fun. They were misleading that sex in some relating to specific group or behavior would be safe.

Table 19. Distribution of the students' positive and negative response of the preventive behavior (per cent)

Items	Male (N = 1,030)	Female (N = 1,638)	Total (N = 2,688)	P value
use condom when having sexual intercourse	93.1	93.4	93.3	NS
avoid sharing needle	94.3	95.3	94.9	NS
choose the expensive prostitutes	66.8	81.1	75.6	S
choose the prostitutes who have regular STD check up	43.6	53.3	49.5	S
have intercourse only with the girls who want sex just for fun	57.7	79.3	70.9	S

The idea of the students when they got AIDS or their friends and relative got AIDS were shown in Table 20 and 21.

Table 20. Distribution of the students' idea if they got AIDS (per cent)

Concept	Male (N = 1,030)	Female (N = 1,638)	Total (N = 2,688)	P value
Suicide	8.0	6.6	6.5	NS
Consult doctors/ health personnels	58.3	63.7	61.7	S
Consult close friend	4.7	2.4	3.3	S
Let it be and enjoy life	13.8	8.4	10.5	S
Take care ourselves and avoid transmitting to other person	44.0	37.9	40.2	S

Table 21. Distribution of the students' concept if their friends or relatives got AIDS (per cent)

Concept	Male (N = 1,030)	Female (N = 1,638)	Total (N = 2,688)	P value
send them to the hospital	24.3	28.8	27.1	S
send them to the AIDS community	7.8	5.5	6.4	S
let them stay together and in under the supervision of health personnels	46.4	44.0	44.9	NS
willing to advice and counsell them	49.3	44.0	46.0	S
do not communicate with them because of fear	3.6	2.0	2.6	S

VI. Needs for reproductive health services

The needs for reproductive health services (Table 22) were having large considerable extent; 84.5% among the male students, and 85.6% among the female students.

Table 22. Students' need for adolescent counselling clinic

Need	Male (N = 989)	Female (N = 1,567)	Total (N = 2,556)	P value
Yes	84.5	85.6	85.2	NS
No	3.4	2.9	3.1	NS
Neutral	12.1	11.5	11.7	NS

Table 23 showed the preferable types of services they wanted; the group discussion seemed to be most attractive, followed with regular hour adolescent clinic (individual approach), and exhibition.

Table 23. Distribution of the students' attitudes toward types of reproductive health services by peer counsellors (per cent)

Type of services	Male (N = 995)	Female (N = 1,649)	Total (N = 2,644)	P value
Group discussion	66.3	63.9	64.9	NS
Regular hour adolescent clinic	64.0	62.5	63.1	NS
Exhibition	62.0	60.8	62.3	NS
Answer-question by letter	52.5	52.1	52.2	NS
University broadcast	45.1	43.8	44.3	NS