

Indicators of AIDS Prevention Among Vocational Students in Songkhla

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Abstract : The vocational students are sexually active teenagers and also have a risk for contracting HIV infection. To predict and compare sexual behavior between male and female and to find indicators of AIDS prevention, 28-item questionnaires were obtained from 1,527 vocational students in Songkhla province. For the positive indicators, female students had significantly higher percentage ($P < 0.05$) of tendency in sexual behavior than male students in 2 items ; B1-I have as a purpose of avoiding premarital sex during studying (86.2 % V.S. 40.8 %) and B17-If you will have premarital sex and your partner will not let you use or your partner will not use condom, you will not have sex (54.6 % V.S. 29.9 %). For the negative indicators, female also had significantly higher percentage ($P < 0.05$) than male in 3 items; B14-I would be too embarrassed to carry a condom around with me, even if I kept it hidden (37.5% V.S. 33.5%), B19-You do not know how to use condom (43.6% V.S. 20.2%) and B20-You do not know how to have safe sex (42.4% V.S. 32.6%). And for the mode of experience in risk behavior, male had higher risk than female in all items, but the level of risk behavior declined from low risk to high risk. These indicated that male students will have higher risks in contracting HIV infection than female because of more risks in sexual behavior and the experience in risk behavior. Both of them showed the high level of safe sex education and awareness in AIDS prevention except for the knowledge about condom use and how to have safe sex were quite low in female students. Another concern was the risk behavior if ever put to a test of drug addict that more than 50% of male students responded "yes". (Thai J Obstet Gynaecol 1994;6:107-116.)

Key words : indicators, AIDS prevention, vocational students

Human immunodeficiency virus (HIV) infection is increasing over the world. In Thailand the first AIDS

case was reported in October 1984⁽¹⁾, then infection has spread rapidly in all population. Until August 1993, the

Ministry of Public Health of Thailand reported 3,001 AIDS cases, and the incidence among teenagers aged 15-19 years was 2.2% (69 in 3,001 cases)⁽²⁾. The heterosexual transmission is the major problem and sexually active teenagers are at risk for contracting AIDS because of the high-risk sexual and drug use behavior.⁽³⁾

Adolescents are young people who are in the age of physical, mental, emotional and social development. They face various problems in adapting their transitional status to the realistic situation in the society. One of the demands of these changes is learning how to associate with opposite sex and social adjustments. Regardless of age, each adolescent boy and girl who enters a sexual relationship does so at a particular level of socioemotional and cognitive development and with whatever self-perceptions he or she has formed, as well as within a particular social and cultural context.⁽⁴⁾ The vocational students are a group of adolescents whose lifestyles can represent other students in the same age. Their knowledge and concern about AIDS are good because they learned from the school curriculum, mass media and other sources of information, but no significant change is detected in some aspects of the level of health behavior change continuum.⁽⁵⁾

In the absence of a cure or vaccine for AIDS, health information and education are the most important mechanism for prevention and control of the disease. Peer and group coun-

sellings are significant ways to raise the level of awareness, concern and preventive behavior. The study in risk and sexual behavior of the vocational students can guide and formulate the direct method to prevent the spreading of HIV infection.

Methods

The study objective is to predict sexual behavior in vocational students and to find indicators of AIDS prevention. The hypotheses to be tested are formulated around comparison between male and female. The hypotheses are as follows :

1. Sexual behavior in male adolescents is likely higher risk than in female.
2. Tendency of AIDS prevention can be considered from many indicators of sexual behaviors and experiences in risk behavior.

The design is characterized by 2 parts of sexual behavior and risk behavior.

Materials : Survey

In August 1993, the study sample comprised 1,527 vocational students randomly selected. The study instrument was a 28-item questionnaire, designed to assess the students' sexual behavior and risk behavior. For the assessment, subjects were asked to response "Yes", "No", "Abstain" as follows : 22 items for tendency of sexual behavior and 6 items for experience of risk behavior.

Analytical techniques

We used simple cross tabulations items of B1-B22 and R1-R6 by sex and Chi-Square to find a significant difference to predict tendency of sexual behavior in vocational students and to level how high of risk behavior comparing between male and female.

Results

From the response of 1,527 vocational students ; 631 (41.3%) are male, and 844 (55.3%) are female. The average age is 17.59 ± 4.04 (See table 1).

Table 1 *Frequency of male and female students and range of age (N= 1,527)*

Variables	Frequency	Percentage
SEX		
Male	631	41.3
Female	844	55.3
Abstain	52	3.4
AGE (average age = 17.59 ± 4.04)		
<14	92	6.0
15-20	1,337	87.6
21-25	79	5.2
26-30	13	0.9
>31	6	0.4

Table 1. Proportion between male and female students is nearly equivalent, and average age is 17.5 ± 4.04 . Almost all students are 15-20 years old.

With comparison of sexual behavioral tendency and experience of risk behavior between male and

female students, we found that there are significant differences in almost all items, except B7-I intend to protect myself by using condom (or let my partner use), B13-I feel uncomfortable buying condoms, and B14-I would be too embarrassed to carry a condom around with me, even if I kept it hidden. (see Table 2).

In this study, we put the indicators of sexual behavior into 2 parts. One consists of 14 items which show strong points of adolescents' behavior which influence sexual behavior positive indicators. Another part consists of 8 items which show weak points of adolescents' behavior which influence sexual behavior negative indicators. These indicators indicate how high of AIDS prevention. If positive indicators have high percentage, it means that the students tend to have safer sex and have higher perceivness in AIDS prevention and vice versa.

From Fig. 1-graph of the positive indicators of male, it is evident that B1-I have as a purpose of avoiding premarital sex during studying (40.8%), B12-I discuss AIDS prevention with friend (s) (31.0%), and B17-If you will have premarital sex and your partner will not let you use or your partner will not use condom, you will not have sex (29.9%), are very low percentage. For female the low percentage items are B4-if I will have a premarital sex, my partner will be a special one for me (46.5%) and B12-I discuss AIDS prevention with friend (s) (21.2%). The noticeable items, when comparing between male

Table 2 Percentage of tendency in sexual behavior between male and female (N=1,527)

	Behavior	Male (%)	Female (%)	P Value P<0.05=S
B1	I have the purpose of avoiding premarital sex during studying.	258 (40.8)	728 (86.2)	S
B2	I plan to have sexual intercourse before I marry.	274 (43.4)	76 (9.0)	S
B3	You think that you can commit your partner by having premarital sex.	178 (28.2)	73 (8.6)	S
B4	If I will have premarital sex, my partner will be a special one for me.	437 (69.2)	392 (46.4)	S
B5	I intentionally limit myself to have sex with one person at a time, if I will have premarital sex.	336 (53.2)	493 (58.4)	S
B6	I will make sure to have safe sex before I marry.	549 (87.0)	643 (76.1)	S
B7	I intend to protect myself by using condom (or let my partner use) when I have premarital sex	452 (71.6)	610 (72.2)	NS
B8	I intend to avoid myself from experiencing any habit-forming drug.	525 (83.2)	777 (92.0)	S
B9	We should consult the doctor for premarital counseling before marriage.	501 (79.3)	733 (86.8)	S
B10	We should undergo blood tests for STD and AIDS, at premarital counseling before marriage.	511 (80.9)	741 (87.7)	S
B11	It is time for you to protect yourself from getting AIDS.	574 (90.9)	744 (88.1)	S
B12	I discuss AIDS prevention with friend (s).	196 (31.0)	179 (21.2)	S
B13	I feel uncomfortable buying condoms.	268 (42.4)	324 (38.3)	NS
B14	I would be too embarrassed to carry a condom with me, even if I kept it hidden.	212 (33.5)	317 (37.5)	NS
B15	Every time before you have premarital sex, you will make sure to have a condom for yourself or your partner.	393 (62.2)	480 (56.8)	S
B16	If you will have premarital sex and you use or (ask your partner to use) a condom, it will look like you do not trust your partner.	179 (28.3)	91 (10.7)	S
B17	If you will have premarital sex and your partner will not let you use or your partner will not use condom, you will not have sex.	189 (29.9)	461 (54.6)	S
B18	If you will have premarital sex, you will be careful of every action for having safe sex, even if people make fun of you for it	367 (58.1)	543 (64.3)	S
B19	You do not know how to use condom.	128 (20.2)	368 (43.6)	S
B20	You do not know how to have safe sex.	206 (32.6)	358 (42.4)	S
B21	If you will have premarital sex, you will make sure to use birth control in every sexual intercourse.	454 (71.9)	515 (61.0)	S
B22	Do you agree that one will lose selfcontrol when he/she gets sexually excited ?	215 (34.0)	170 (20.1)	S

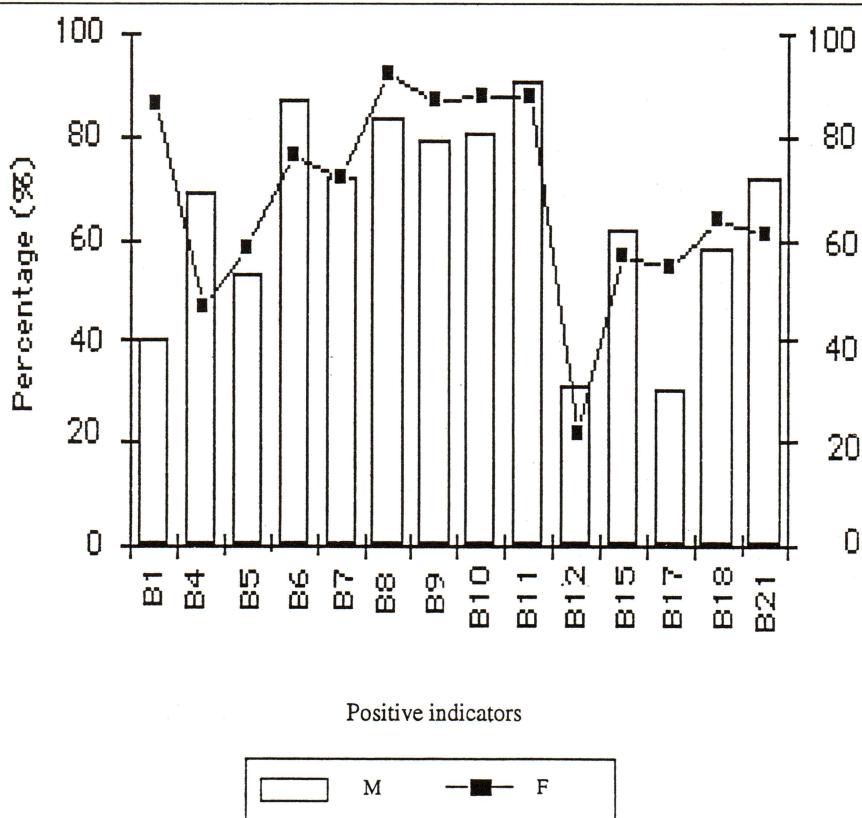
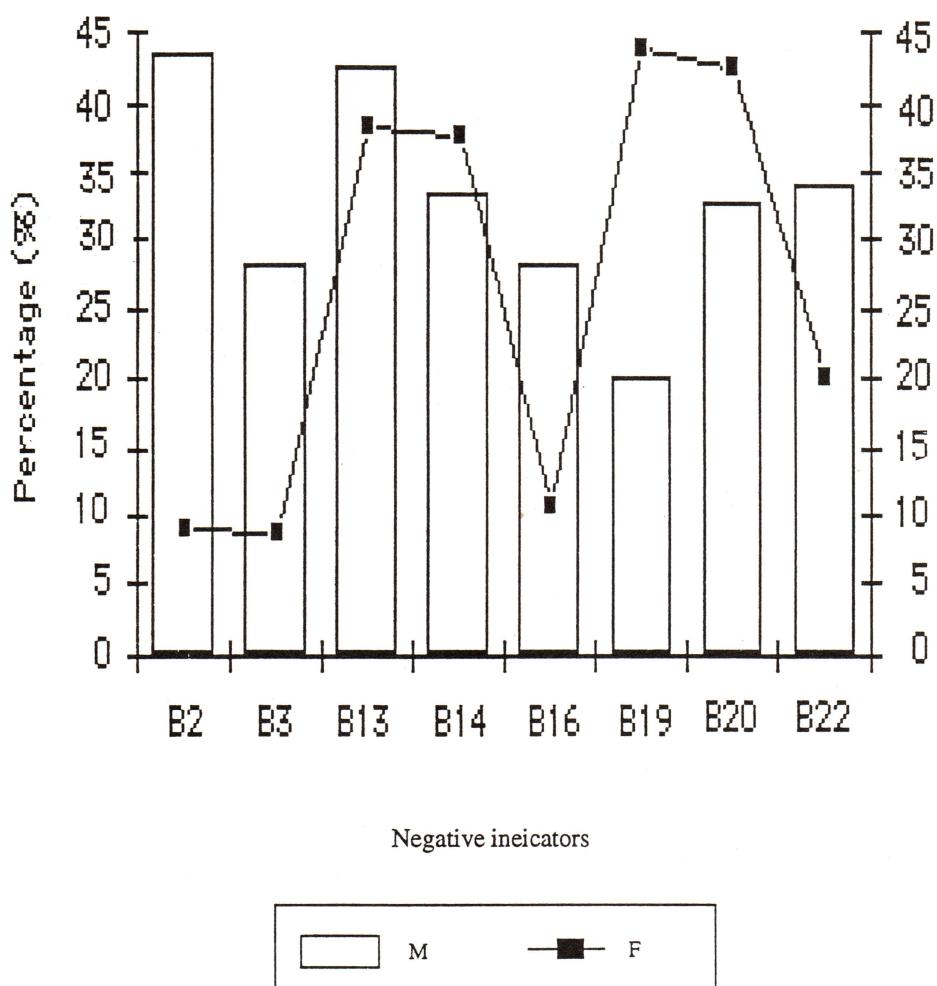


Fig. 1 Level of positive indicators (strong points of adolescents behavior which influence sexual behavior)

- B1 = I have the purpose of avoiding premarital sex during studying
- B4 = If I will have premarital sex, my partner will be a special one for me
- B5 = I intentionally limit myself to have sex with one person at a time, if I will have premarital sex
- B6 = I will make sure to have safe sex before I marry
- B7 = I intend to protect myself by using condom (or let my partner use) when I have premarital sex
- B8 = I intend to avoid myself from experiencing any habit-forming drug
- B9 = We should consult the doctor for premarital counseling before marriage
- B10 = We should undergo blood test for STD and AIDS, at premarital counseling before marriage
- B11 = It is time for you to protect yourself from getting AIDS
- B12 = I discuss AIDS prevention with friend (s)
- B15 = Every time before you will have premarital sex, you will make sure to have condom for yourself or your partner
- B17 = If you will have premarital sex and your partner will not let you use or your partner will not use condom, you will not have sex
- B18 = If you will have premarital sex, you will be careful of every action for having safe sex even if people make fun of you for it
- B21 = If you will have premarital sex, you will make sure to use birth control in every sexual intercourse



**Fig. 2 Level of negative indicators
(weak points of adolescents behavior which influence sexual behavior)**

- B2** = I plan to have sexual intercourse before marriage
- B3** = You think that you can commit your partner by having premarital sex
- B13** = I feel uncomfortable buying condoms
- B14** = I would be too embarrassed to carry a condom with me, even if I kept it hidden
- B16** = If you will have premarital sex and you use or (ask your partner to use) a condom, it will look like you do not trust your partner
- B19** = you do not know how to use condom
- B20** = you do not know how to have safe sex
- B22** = Do you agree that one will lose self control when he/she gets sexually excited

and female, which show remarkable differences, are B1-I have as a purpose of avoiding premarital sex during studying and B17- If you will have

premarital sex and your partner will not let you use or your partner will not use condom, you will not have sex, and that female have higher per-

centage than male.

From Fig. 2-graph of the negative indicators, we noticed that item B14-I would be too embarrassed to carry a condom around with me, even if I kept it hidden (F 37.5%, M 33.5%), B19-you do not know how to use condom (F43.6%, M20.2%), B20-you do not know how to have safe sex (F42.4% M32.6 %), in female are higher percentage than in male.

And it is notable between male and female in the mode experience in risk behavior and the rate of risk range from the least to the most risk. R1-Ever conduct the trial of drinking alcohol, R2-Ever put to a test of addict, R3-Ever act a forplay of sexual stimulation, R4-Ever behave of sexual intercourse, R5-Ever perform and oral sex, R6-Ever had homosexual relation. (See Table 3 and (Fig. 3)

Discussion

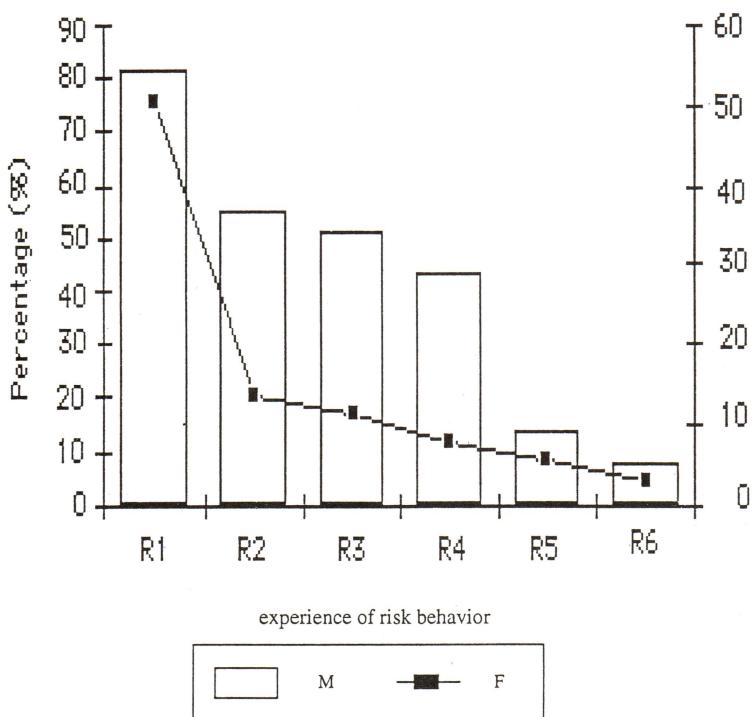
In recent years, many aspects regarding AIDS prevention were studied and surveyed to find the most suitable and effective mechanism. There is concern that sexually active teenagers may be at risk for developing AIDS because of their sexual practices and high rates of STDs : gonorrhea, nongonococcal urethritis, and syphilis.⁶⁻⁹ Especially, slightly over 60% of the sexually active male adolescents indicated that their sexual partners were prostitutes⁽¹⁰⁻¹²⁾, and the low proportions of them used condoms. This information showed the

possibilities of exposure and spreading of AIDS among the adolescents and young adult population.

The Ministry of Education's strategy was originally to urge the students to learn more about AIDS via the school curriculum. The vocational students have known about AIDS in high level, but AIDS is a disease with an etiology dominated by behavioral choices. This study demonstrates that sexual behavior in male and female vocational students are much more different in almost all items, except for 3 items : B7-I intend to protect myself by using condom (or let my partner use), B13-I feel uncomfortable buying condoms, and B14-I would be too embarrassed to carry a condom around with me, even if I kept it hidden. Male students have lower percentage than female students in 2 positive indicators of sexual behavior : B1-I have as a purpose of avoiding premarital sex during studying and B17-If you will have premarital sex and your partner will not let you use or your partner will not use condom, you will not have sex. These indicate that male sexual behavior will have more risks in contracting HIV infection than female sexual behavior, but for the knowledge about how to practice safe sex like items B14, B19 and B20, male showed higher percentage than female. It may be concluded that male students are significantly influenced by Thai culture and social trend to learn and explore in sex more than female, both in right and wrong attitudes.

Table 3 *Experience of risk behavior among male and female*

Experience of risk behavior		Male (%)	Female (%)	P value (P<0.05 = S)
R1	Ever conduct the trial of drinking alcohol	515 (81.6)	425 (50.3)	S
R2	Ever put to a test of drug addict	347 (54.9)	115 (13.6)	S
R3	Ever act a foreplay of sexual stimulation	322 (51.0)	94 (11.2)	S
R4	Ever behave of sexual intercourse	273 (43.2)	67 (7.9)	S
R5	Ever perform an oral sex	87 (13.7)	49 (5.8)	S
R6	Ever had homosexual relation	48 (7.6)	26 (3.0)	S

**Fig. 3** Percentage of experience in risk behavior between male and female

- R1** = Ever conduct the trial of drinking alcohol
- R2** = Ever put to a test of drug addict
- R3** = Ever act a foreplay of sexual stimulation
- R4** = Ever behave of sexual intercourse
- R5** = Ever perform an oral sex
- R6** = Ever had homosexual relation

For some item; B12-I discuss AIDS prevention with friends, both male and female students showed low percentage (31 and 21.2%, respectively). This shows that even with more concern about AIDS prevention, the students are still reluctant and embarrassed in talking and discussing about AIDS.

The mode of experience in risk behavior and the rate of risk range from the least to the most risk (R1 to R6) were shown that male students had higher percentage than female in every item significantly. The differences confirm the hypothesis that male students had higher risk than female in contracting HIV infection, but the decline of curve from low risk to high risk behavior in both sexes showed that few percentage of students, especially female, had the possibilities to expose the disease. The other concern about risk behavior is more than half of male students ever put to a test of drug addict, though we did not ask the details of drug uses (like heroin), that can give the clearer aspect.

Most of the indicators of sexual behavior among the vocational students showed the high level of safe sex education and awareness in AIDS prevention. Unfortunately, the knowledge about condom use and how to have safe sex were quite low in female students. It can expect to develop appropriate model or control strategies from these sexual and risk behavior for AIDS education and prevention in the vocational students.

Summary

Survey of 1,527 vocational students of Songkhla province was made to study sexual and risk behavior. Many indicators used showed difference between male and female students significantly, in nearly all items. Both sexual and risk behavior of male students were indicated at a higher risk than female in contracting HIV infection. However, most items in positive indicators of sexual behavior have high percentage. This indicates that the students tend to have safe sex and awareness in AIDS prevention. The risk behavior in some items like ever put to a test of drug addict was high in male students. This study may suggest and lead us to perform the appropriate programs for the vocational students to encourage them to change sexual behavior and attitudes, according to their risk and misunderstanding.

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