Prostitutes and AIDS:
a survey of knowledge, attitudes and practice (KAP)

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Introduction

Human immunodeficiency virus (HIV) infection has become a major problem among female prostitutes in many parts of the world, with the prevalence rate as high as 80% in some areas. Business travellers, military personnel and other who have sexual intercourse with prostitutes are at risk of infection.[1] In 1981, sera were collected from 116 prostitutes in Nairobi and 5 (4%) were seropositive; in 1984, 174 of 286 were infected (61%); and by 1986, 85% were positive.[2] In Thailand several years ago, HIV seroprevalence among female prostitutes was less than 1/1,000; now it is about 1/400 and in some focal area exceeds 1%. Recently, infection was geographically limited in Thailand; now, HIV infection has been reported in 70 of the country's 73 provinces.[3]

It is increasingly clear that the epidemiology of HIV is becoming more heterogeneous and is not yet reached a stable situation in many populations. HIV antibodies prevalence rates among female prostitutes in different parts of this country seem to vary as a function of the HIV prevalence rates among their male heterosexual clients and partners. Prostitutes are at serious risk for contracting AIDS. In addition to the medical problem, the psychosocial dimension of the problem including alienation, abandonment and adverse effects on families, groups and nations must be taken into account. When all these impacts are considered, AIDS represents a global problem of tragic proportions. The full social, ethical, moral, psychological and financial consequences cannot yet be assessed, but they must be taken seriously. The knowledge of the above stem has only gradually been emerging, but it is as yet not complete to take note of some twilight zone minorities identified as the main risk groups: homosexuals, prostitutes, and drug addicts. In our country the prostitution flourished in many places, before effective prevention programs can be implemented, reliable and valid measures must be developed to evaluate the reliability and validity of measures to assess prostitutes' knowledge and beliefs about AIDS.[4]

Prostitution is the exchange of sexual favors for a fee; usually promiscuously and without affection. While the most common form of prostitution is female and heterosexual, there also exists male heterosexual prostitution as well as male and female homosexual prostitutes. The distinction between prostitution and amateur sex is sometimes vague, as when a women exchanges sexual favors for her personal gain, such as job advancement, or accepts expensive gifts or living expenses from a wealthy male friend.

Enhancing knowledge about AIDS and positive beliefs about preventing AIDS have been the primary goal of most intervention programs. Knowledge is considered an important prerequisite for behavior change. Having assessed deficits in knowledge, information can be targeted where it is most needed.

Poverty and a lack of education and skills drive several hundreds of thousands of women into prostitution. At a conference held in November 1989 by the women and AIDS support in Zimbabwe, six ex-prostitutes described the factors which had influenced their decision to take up prostitution. They included divorced, physical disasters such as drought, economic dependency, lack of alternative job opportunities, the inheritance structure and the existence of a ready market for their services. Prostitution was a solution to poverty and unemployment.[5]

Hat Yai, largest district of Songkla province located 947 kilometers south of Bangkok, is a bustling young business town which owes much of its prosperity to trade (especially in tin and rubber) and tourism, mostly from nearby Malaysia. There is a very active nightlife. Massage parlors, bars, brothels, and escort agencies are parts of this entertainment business.

Elsewhere the sex tourist-prostitutes relationship is usually one of the superior customer who has the power of the money in his hand versus the prostitute whose occupation automatically makes her less human and more meat in his eyes. The Malaysian and Singaporean tourists arrive alone or in groups and stay in Hat Yai district for a few days at a time, the weekend being the business time. Malaysia's and Singapore's strong dollar encourage the tourists who come over the border to spend their money here. Most of Malaysian and Singaporean customers will take the prostitutes out for the day which costs from US $ 20 up. The women say that the customers are usually generous and will take them out to eat or buy them things. In many cases the tourists will hire the same women for the duration of his stay and sometimes they will take out the same prostitutes every time he visit Songkla.

The willingness to spend the money and time with the women does not make the relationship purely a sex for money relationship. During the weekend the seasides and the coffe houses of hotels are filled with prostitutes and customers who spend time drinking and eating together. The atmosphere is usually friendly because the prostitutes from the same brothel will introduce their customers to each other or group of customers will choice prostitutes from the same brothel. The women who can write, send the letter to their customers in Malaysia and Singapore. This type of closeness is not the rule between prostitutes and customer here but nor is it the exception. Gambling and smoking are part of the monotonous life while the women wait for the next customer.

None of the pimps in Songkla punish or hit the prostitutes. There is just no need for that kind of thing, if a prostitute does something wrong she will have a pay cut. In addition, if a brothel establishes a reputation for treating its prostitutes badly, nobody will want to work for it. The pimp-prostitute relationship is similar to that of husband and wife. The only variation is that economic role reversal has occurred.

Of different forms of prostitutes that exist in Thailand the low-income prostitutes are the most numerous. Recent data from the Ministry of Public Health indicates that there might be as many as 80,000 prostitutes of

this category throughout the nation, and in Songkla province there are about 4,000-5,000 prostitutes.[6]

The reason for entering prostitution are numerous. Economic factors play an important role and receive much attention in the general media. However, few women enter prostitution influenced solely by prospects of financial gain.[7] The NCWA (National Commission on Women's Affairs) of Thailand works on the assumption that prostitution is caused by a number of social problems, including poverty and broken home. The need for money is paramount among these various motives, some prostitutes are often dependent on alcohol or other drugs and unable to support her dependency with regular job.

By common sense, nobody wants to be a prostitute if they have a choice. Prostitutes are social victims. They are not criminal. They are the people who need help from the concerned organization. We need a movement so intense that it can uproot men's sexual habits to curb AIDS effectively. The "official" attitude here is prohibitive toward sexual activity before marriage. The "unofficial" attitude is still the highly discredited "double standard" which is much more tolerant toward the sexual activities of men than of women. This is an unfortunate carry-over from the era when women were of expected to enjoy sexual intercourse. The women who gets "caught" in sexual activity outside of marriage may still feel a certain amount of disapproval. It is acceptable in Thai society and many housewives to allow their husband to have extramarital sex with service girls. Many Thai men travelling to other provincial area feel that their trip is "not complete" unless they have sex with prostitutes. The AIDS prevention program should promote both encouraging male clients to use condom and asking prostitutes to request their customers to do so, including to quit if they catch the diseases.[6]

Among the male customers of female prostitutes, there are a variety of motives. There may be a need for variety, an unwillingness to pursue women, fear of rejection by women, or other psychological or physical limitations that make it difficult to succeed with women. A young man inexperienced with women may visit a prostitute as a learning experience. A traveling businessman may rely on prostitutes for both sex and companionship. A married man may patronize prostitutes when his wife fails to fulfill his sexual needs, either in the frequency or type of sexual contact, or makes him feel inadequate through her lack of enthusiasm in responding to him. Many married customers are more interested in oral or anal sex than in vaginal coitus. If vaginal coitus is their choice, they expect an enthusiastic response from the prostitute, who will often fake orgasms. Men with problems of impotence often find that they are potent with prostitutes, many of whom are highly skilled in stimulating men. Also, the nature of the prostitute-client relationship may eliminate or minimize the psychological factors contributing to impotence. Sadists and masochists often hire prostitutes to cater to their unusual needs.[8]

Kinsey found that males go to prostitutes primarily because they provide easy and certain sexual outlet, they are cheaper than dates with non-prostitutes, the sexual contacts involve no later responsibilities, and prostitutes provide services difficult to obtain from other women: bondage, oral, or anal intercourse , and so on.[9]

This article will describe the social background and the level of health behavior change continuum about AIDS, and offer practical suggestions

for education intervention for HIV prevention among this high risk group. We concluded that we lacked sufficient information related to this population to make an adequate behavioral and educational diagnosis. In part, this lack of information was indicative of the overall gap in the availability of descriptive data related to the health beliefs, attitudes and preventive practices of minorities in general. Although health education is seen by many as the most viable approach contributing to the prevention and control of AIDS. However, there are unique barriers confronting health educators who attempt to translate health education theory into effective strategies around this critical public health problem.[10]

Methods

During September through October, 1989 the investigators conducted in-depth interviews among the prostitutes in Songkla province. All participants complete the questionnaire about the level of health behavior change continuum; (1) awareness (2) concern (3) knowledge and attitude (4) sexual behavior at risk (5) preventive behavior. In addition, a number of questions were asked about demographic informations. The interview was administered at the Hat Yai, Songkla, and Padang Besar VD unit. The question was properly completed by 2,940 female prostitutes; 1,875 in Hat Yai, 853 in Songkla, and 212 in Padang Besar district respectively. The prostitutes who attend the VD unit were chosen because most of them are compulsory to visit the doctor every week at the VD unit for sexually transmitted disease (STD) screening, and of course having blood test of VDRL and HIV antibodies every three months. This is the informal agreement between the director of VD center, region 12, Songkla and the brothel owners.

Because prostitute is officially illegal in Thailand, gaining the trust and cooperation of the brothel owners required a multiple processes. Firstly, the local health officials in the district were contacted and informed of the objectives and research methodology. Next, the brothel owners were contacted for permission each prostitute to spend fifteen to thirty minutes interview.

A review of the current literature was conducted on assessing AIDS knowledge and belief about AIDS intervention.[4,11,12] Items from those instruments considered the best were reviewed in focus group composed of 34 voluntary prostitutes. Items from existing instruments were read aloud to 10 focus groups, leading to rewording of ambiguous items and the adding of additional items. The items from the literatures were modified for inclusion of the level of health behavior change continuum. New instruments were drafted. The revised instruments were then pilot-tested in some prostitutes before data collection began. The goals of focus group discussion and pilot testing were (a) to ensure the feasibility of administering the instruments with the prostitutes; (b) to revise the instruments for administration based on feedback from the focus group discussion and the success of interviews in obtaining the reliable information with instruments; and (c) to add or subtract items to instruments that relate and fit with the prostitutes.

For the assessment, subjects were asked to response "Yes", "No", or "Not sure" to 28 items except the number of clients per week; 3 items for awareness, 5 items for concern, 10 items for knowledge and true-false attitude, 3 items for sexual behavior at risk, and 7 items for preventive behavior. The true-false attitudes were interpreted for the correct answer as "positive

response", and the incorrect answer as "negative response".

The awareness assessment instrument consists of 3 items dealing with, information receiving from mass media, life threatening disease, communicable disease. The concerns about AIDS are written with emphasis on the following: beginning/increasing to talk about AIDS with friends, seeking information about AIDS, increasing attention to AIDS, feeling fear or worry about AIDS, and being to see self as "at risk". The knowledge and true-false attitude assessment surveys feelings and beliefs about heterosexual intercourse with an infected men, using of contaminated needle in drug abuse, vertical transmission from infected mother to her baby, getting AIDS from mosquitoes, social contact through food preparation and eating utensils, getting AIDS by using the toilet, contact through the air such as cough or sneeze, casual contact such as hugging or grasping hand, identification infected person by general appearance, and detection of infected person by symptoms and signs. The sexual behavior at risk describes the number of the clients per week, oral sex, and anal sex. The preventive behavior about STD and AIDS questionnaire focuses on persuasion the clients to use condom, carrying condom to use any time or by hand, examination the external genitalia for the signs of STD, refusal the clients who seem to be STD to have sex, having the interest to prevent AIDS if there is an easy method such as foam or film coated antiviral agent, having a regular test for HIV antibody every three months, and having a regular check up for STD every week.

Results

Of the 2,940 prostitutes accepted the invitation to participate in an interview. Table 1 presents selected sociodemographic data. The mean age for all the prostitutes was 21.9 years (mode, 20 years; median, 21 years; range 12 to 48 years), Nearly half of the prostitutes (43.0%) were between 20-24 years of age. The adolescent prostitutes were the second large proportion (33.3%). The largest proportion of the prostitutes came from the North of Thailand (71.9%), followed by the North-east (14.5%), and the central Plain (8.5%), with just 5 per cent from the South. Half of them came from the farming family, while 16.2% came from laborers or factory workers, and the reminders were house keepers, students and others.

As might be expected among girls from such backgrounds, they had been introduced to work at an early age and had some experiences of work before coming to Songkla province. In such circumstances, few of them had managed to garner much education. Some of them (11.7%) had no education at all, and second large proportion (30.9%) had 4 years or less than 4 years of elementary school (4 years, 27.5 %; less than 4 years, 3.4 %). While the most of them (44.4%) had 4 or 5 years of elementary school (5 years, 2.0 per cent; 6 years, 42.4 per cent), and the remaining had made it into the secondary school (11.5%), and vocational school (1.1%). There was only one girl had a bachelor degree.

The prostitutes also had a sad history of personal and marital relation behind them. Nearly forty percent (39.9%) of the prostitutes had an unlucky marriage (divorced or widow), while the single and couple status was 59.4 per cent and 1.0 per cent respectively. The large proportion of them (38.1%) were very recent prostitutes; less than 1 year. The length of time they had been working as prostitutes was also in general very short, with just 6.1 per cent worked longer than 5 years. However, there were some influences

to prostitution; migration to other provinces, changing the occupation, or marriage.

Table 1. Demographic characteristics of 2,940 prostitutes in studied sample

Variable	number	per cent
Age (years)		
less than 15	16	0.5
15-19	965	32.8
20-24	1,265	43.0
25-29	515	17.5
more than 29	179	6.8
Province born		
north	2,114	71.9
north-east	427	14.5
middle	251	8.5
south	147	5.0
Occupation before prostitution		
help in the family farm	1,497	50.9
laborers, factory workers	477	16.2
small trading	247	8.4
house keepers	206	7.0
students	48	1.6
other	440	14.9
not specify	25	0.8
Education level		
illiterate	345	11.7
elementary school 1-4 years	911	30.9
elementary school 5-6 years	1,308	44.4
secondary school	340	11.5
certificate or bachelor degree	34	1.1
Marital status		
single	1,730	59.4
couple	31	1.0
divorce or widow	1,173	39.9
not specify	6	0.2
Duration of prostitution (years)		
less than 1	1,121	38.1
1-2	694	23.6
2-3	513	17.4
3-4	307	10.4
4-5	125	4.2
more than 5	180	6.1

The prostitutes' awareness about AIDS is reported in Table 2. Television, radio and the press had given the information about AIDS to 98.6 per cent of the prostitutes, and this high risk subgroup were alarmed for the information of fatal disease (93.1%), and communicable disease (93.1%). Most of the prostitutes were already aware about AIDS.

Table 2. Awareness about AIDS of the prostitutes in Songkla

Item	Yes No.(%)	No No.(%)	Not sure No.(%)
heard of AIDS from mass media	2,899 (98.6)	32 (1.0)	9 (0.3)
AIDS is a life threatening disease	2,738 (93.1)	38 (1.2)	164 (5.5)
AIDS is communicable disease	2,740 (93.1)	32 (1.0)	168 (5.7)

The five items of concern about AIDS were described in Table 3. The major concern included feeling fear or worry about AIDS (94.1%), followed by beginning to see self as "at risk" (93.2%), seeking additional information (87.1%), beginning or increasing to talk about AIDS with friends (84.3%), and increasing attention to AIDS situation (75.1%).

Table 3. Concern response about AIDS of the prostitutes in Songkla

Item	Yes No.(%)	No No.(%)	Not sure No.(%)
begin/increase talking about AIDS with friends	2,480 (84.3)	454 (15.4)	6 (0.2)
seek information about AIDS	2,561 (87.1)	370 (12.5)	9 (0.3)
increase attention to AIDS situation	2,209 (75.1)	723 (24.5)	8 (0.2)
feel fear or worry about AIDS	2,768 (94.1)	152 (5.1)	20 (0.6)
begin to see self as "at risk"	2,741 (93.2)	103 (3.5)	96 (3.2)

The knowledge and true-false attitudes about 10 items were summarized in Table 4. The three modes of transmission were highly recognized; heterosexual transmission (92.1%), contaminated needle (92.4%), and vertical transmission (89.6%). But the personal knowledge combined with attitude was rather high negative response; getting AIDS from mosquitoes (64.5%), through eating utensil (46.8%), by using the toilet (57.6%), and through the air (47.1%). In contrast, the remaining had low negative response; casual contact (28.4%), identification of infected person by general appearance (12.4%), and misunderstanding that every infected disease must have the symptoms and sign (35.9%). However, the not sure response was vary from 6.2 per cent to 25.2 per cent among these items.

Table 4 Knowledge and true-false attitude about AIDS of the prostitutes in Songkla

Item	level of response		
	Positive* No.(%)	Negative No.(%)	not sure No.(%)
heterosexual intercourse with an infected men	2,708 (92.1)	48 (1.6)	184 (6.2)
use of contaminated needle in drug abuse	2,718 (92.4)	27 (0.9)	195 (6.6)
vertical transmission from infected mother to her baby	2,637 (89.6)	55 (1.8)	248 (8.4)
get AIDS from mosquitoes	567 (19.2)	1,898 (64.5)	475 (16.1)
social contact through food preparation and eating utensils	1,104 (37.5)	1,378 (46.8)	458 (15.5)
can get AIDS by using the toilet	820 (27.8)	1,694 (57.6)	426 (14.4)
contact through the air such as cough or sneeze	1,023 (34.7)	1,386 (47.1)	531 (18.0)
casual contact such as hugging or grasping hand	1,638 (55.7)	835 (28.4)	467 (15.8)
infected person can be identified by general appearance	2,191 (74.5)	365 (12.4)	384 (13.0)
every infected person must have some symptoms and signs of AIDS	1,140 (38.7)	1,057 (35.9)	743 (25.2)

* correct answer

The situation of prostitutes who defining have no other means of subsistence, promiscuity being their trade, is particular difficult to refuse the clients. In Table 5, the large proportion of the prostitutes (48.5%) had 1-5 clients per week, followed by 6-10 clients (29.9%), and the remaining (21.5%) had more than 10 clients per week. The types of sexual practice "at risk" consists of oral sex (11.7 %) and anal sex (3.6%).

Table 5. Sexual behavior of the prostitutes in Songkla

Variable	Number	per cent
Number of clients per week		
1-5	1,426	48.5
6-10	881	29.9
more than 10	633	21.5
Type of sexual intercourse at risk		
oral sex	344	11.7
anal sex	108	3.6

As seen in Table 6, the items related to discuss STD and HIV prevention showed the distribution of response; persuasion the clients for condom usage (95.7%), carrying condom (88.4%), examination of the clients' external genitalia (63.6%), refusal the clients whom to be STD (78.7%), interesting the new method in HIV prevention (93.1%), regular test for HIV antibody (52.9%), and regular check up for STD (99.5%).

Table 6. Preventive behavior about STD and AIDS of the prostitutes in Songkla

Item	Yes No.(%)	No No.(%)	Not sure No.(%)
persuade the clients to use condom	2,814 (95.7)	122 (4.1)	4 (0.1)
carry condom to use any time or by hand	2,601 (88.4)	333 (11.3)	6 (0.2)
examine the external genitalia for the signs of STD	1,870 (63.6)	1,063 (36.1)	7 (0.2)
refuse the clients whom seem to be STD to have sex	2,315 (78.7)	601 (20.4)	24 (0.8)
have the interest to prevent AIDS if there have an easy method such as foam or film coated antiviral agent	2,739 (93.1)	121 (4.1)	80 (2.7)
have a regular test for HIV antibody every three months	1,558 (52.9)	1,379 (46.9)	3 (0.1)
have a regular check up for STD every week	2,926 (99.5)	13 (0.4)	1 (0.03)

Discussion

Prostitutes justify their sexual activity on the grounds that they were not worse than other persons and are commonly less hypocritical; they realize financial success; others depend upon their support; and they perform an important and necessary social function. They also hold that they serve as a safety outlet by protecting society from rapes, broken marriages and sexual perverts, and by assisting aging and lonely men fulfill their sexual needs. They also contend that they are more honest in their dealings with men than most women who simply utilize sexual gifts to manipulate males to their advantage.[13]

It is not possible to eliminate prostitution, but some changes affecting prostitution as consequence of fear and education are plausible; the decline in their numbers and in the numbers of clients, the decline in sex-tourism to Thailand, a stricter regulation of juvenile prostitution. Positive help and encouragement are needed for those wishing to abandon the trade. Social support, alternative employment or in case of disease social security provisions are imperative, although for the prostitutes, they are never seen as satisfactory. For the past seven years with STD control program, the health authorities and governor of Songkla province provided the informal registration, it is likely to be compulsory measures to control STD among prostitutes. The owner of the brothels had a strong suggestion to allow their prostitutes having the regular check up for STD every week. Now the regular examination is generally accepted among the prostitutes. Most of the prostitutes (99.5%) had a regular check up at VD units every week. In addition, they had blood test for VDRL every three months. The cost of STD screening and VDRL blood test are free of charge. The blood test for HIV antibody is about US $ 2, so the proportion of HIV antibody testing is rather low (52.9%). Health care providers who have contact with the prostitutes should also explore their health behavior change continuum. The intervention combines with testing with a major counselling, a general education program, and antidiscrimination, then should begin to implement.

The northern girls were prettier and clearly more in demand in Songkla. Most of the prostitutes (71.9%) came from the northern part, some family can use the prostitution earnings to clamp up the ladders of fortune. Sister follows sister. Neighbor follows neighbor. The only real solution is a long-term one, and it lies in a massive change in the distribution of income between cities and country, and in a fundamental shift in Thailand's orientation to the international economy. The high rate of unemployment for young, unskilled women in this community has been the major factor in obtaining a work force for the prostitutes.

The prostitutes also had an unlucky marriage; divorced and widowed. Nearly forty per cent (39.9%) were divorced or widowed. While in 1978, the divorce rate of Thailand was 7.0 per cent. They were escaping from a cruel or boring husband. They had money in their pocket, they had some occasional pleasure from the work, and they had the chance to make their way in society. However, the duration of prostitution was not so long. Nearly eighty per cent (79.1%) had the duration of the prostitution not more than three years. The successful prostitute is usually between 17 and 24 years of age. Although some are married, most are single. While most prostitutes come from lower socioeconomic classes, and they have generally been poorly integrated into normal social groups and frequently engage in the activity in order to increase their economic power. The juvenile prostitutes had been overwhelming, Newsweek (1978) reported alarming increase in arrests of prostitutes under the age of 25 in New York from 24% to 74% in previous 10 years. In Boston the average age of prostitutes is 20 years old; in Miami it is 18.[14] The mean age of Songkla prostitute was 21.9, and 76.3 per cent was under the age of 25.

The difficulty of developing valid measure of knowledge and belief was highlighted by the feedback obtained from participating in focus groups in which the measures were piloted. One major problem we addressed was how to label the difference between AIDS and HIV infection; the participants are likely to understand that every body who gets HIV infection must be AIDS. So we explain the terminology of AIDS into three categories; group 1 is asymptomatic HIV infection, group 2 is nonspecific symptoms of HIV infection, and group 3 is specific symptoms of HIV infection (full-blown AIDS).

More than most diseases, acquired immunodeficiency syndrome (AIDS) appears to elicit high negative, fearful, and prejudicial attitudes. In the present study indicates that many prostitutes are aware, and concerned about AIDS. But many have limited understanding of the true attitudes, means that many of the prostitutes are still misinformed or confused about AIDS transmission. Furthermore, these findings indicate the need for a teaching module which would be included in the VD unit to overcome misconceptions about AIDS. Equally importance as understanding the cause and transmission of AIDS, as Yankauer [15] points out, is providing education on the role that social values play in the control of sexually transmitted diseases.

While the fear of AIDS may be based on misconceptions about the disease's transmission mechanism, it is possible that negative attitudes concerning AIDS also reflex prejudice toward its victims. Many prostitutes lacked the true attitude of the transmission. These findings show that fear message do frighten many of the prostitutes. Our major concern were; to promote safe sex practices and to address other health related issues, to address issues of exploitation and to improve working conditions in the sex industry, and to challenge negative community attitudes to sex workers. Use

of a condom reduces risk of transmission of HIV infection through sexual behavior, but using condoms requires the cooperation of male partner.[16] Current public health strategies for the prevention of sexual transmission focus on four issues, namely, partner selection,[17-19] partner number,[20,21] mode of sexual expression,[22,23] and the use of the condoms.[24] Thus there is excellent reason to persist with efforts to disseminate persuasive health education message about these issues. The warning should be given that heterosexual activity with prostitutes was dangerous and that all premarital and extramarital sex carried dangers for the family through the media and workshop. Many clients of prostitutes, or even men having sexual relationship with casual friend, like to have several orgasms, this may lead to minor trauma and makes the use of condoms almost impossible. In Thailand condoms were promoted for family planning, and then the market research and promotion in each high risk group will have to be put into the various channels of communication.

AIDS has been clearly related to certain types of behavior. Social marketing techniques for selling and creating a demand for a specific type of behavior, e.g. use of condoms and limited partners will have to be used. Condoms perhaps offer one of the best hopes for a readily available preventive measure.[25] This study indicated that most of the prostitutes persuade the clients to use the condom (95.7%), have the interest in the easy method of prevention (93.1%), and have a regular check up for STD (99.5%). These may not correlated with other preventive behaviors. The remaining were rather less concern; carrying the condom (88.4%), refusal the clients who seem to have STD (78.7%), examination of the clients' external genitalia (63.6%), and regular test for HIV antibody (52.9%). The regular test for HIV is least preventive behavior even if the large proportion of them (93.1%) begin to see self "at risk", supplying accurate information about HIV risk reduction in conjunction with social influence could promote behavior change in three way; by promoting a coping mechanism of fear arousal, by increasing feelings of self-efficacy, or by decreasing feelings of perceived vulnerability. However, the conventional STD are not put in under control, the concomitant HIV-STD transmission will occur, since the presence of the latter is though to facilitate transmission of the former.

In 1987, the formal incidence of STD in Songkla province was 2,026.2 per 100,000 population,[26] the actual incidence may be under registration because most of patients go to the private clinics or drug stores. Nowhere has an orchestrated effort been instituted to improve the treatment of STD among prostitutes, even though STD are acknowledged risk factors for the acquisition and transmission of HIV infection,[27,28] chancroid and syphilis, in particular, are easy to diagnose and treat.

Health education approaches in Thailand is geared to heterosexual education. Television, radio and the press have seldom given so much time and space to a disease. This is because it is new and the public is alarmed and wanting information. It is also because there is a constant flow of information from research workers and conferences in different parts of the world. The rapid spread of the disease round the world and the rising death toll has kept up a flow of news. Information on one aspect of AIDS stimulates the demand for more complete information. This media barrage has had two results, one unfortunate in that it has stimulated many false ideas and wrong emphasis, and unnecessary fears. It has, however, also been having a beneficial effect as it has provided some useful guidance on behavior to avoid

the disease.[29] The AIDS prevention project in the future, and additional intervention program is planned, one that a skills training in additional to the group educational session. The ability of group educational session to influence attitudes about AIDS risk in a positive way suggests that this type of intervention may be effective in enabling homosexual and bisexual men to adopt low-risk sexual activity by influencing the nonhealth motives of sexual behavior, especially peer norms about safe sex.[30]

Using peer to deliver the information and counsell individually may also increase efficacy, as has been observed in smoking prevention program for adolescents.[31,32] The social influence models using peer-led group discussion have been more effective than fear-based media and educational campaign. The study supports the hypothesis that simply acquiring more knowledge about risky activity may be inadequate to change behavior in many individuals. Among persons for whom information alone is not adequate to induce behavior change, specific skills dealing with how to change and experiences that reinforce successful change may be essential. If special education peers is to play a useful role in AIDS education, the activity of this kind may be included in the national AIDS education. Fear-oriented approaches have typically been avoided in the belief that such appeals are counterproductive because they will induce anxiety and lead to avoidance instead of adoption of protective behavior.[33]

Peer support is directly related to sustaining behavior change. Support from friends and loved ones may be necessary to establish and maintain pattern of low-risk sexual behavior. In some people who fall short of their goals, peer support needs to directed toward striving to achieve the desired changes. A limitation of this research is the fact that it did not directly evaluate changes in personal behavior or intention to change behavior. The further study should conducted to address this issue.

Summary

Prostitutes are a group at high risk for exposure to AIDS. TO assess the level of health behavior change continuum; (1) awareness (2) concern (3) knowledge and attitudes (4) sexual behavior at risk (5) preventive behavior about AIDS in Songkla province, Thailand, data were obtained from 2,940 female prostitutes. The mean age of the prostitutes was 21.9 years, nearly half of the prostitutes (43.0%) were between 20-24 years of age. The adolescent prostitutes were the second large proportion (33.3%). The largest proportion of the prostitutes (71.9%) came from the North of Thailand, and half of them came from the farming family. The prostitutes also had a sad history of personal and marital relation behind them. Nearly forty percent (39.9%) of the prostitutes had an unlucky marriage (divorced or widow).

Most of the prostitutes were already aware about AIDS. The major concern included feeling fear or worry about AIDS (94.1%), followed by beginning to see self as "at risk" (93.2%), seeking additional information (87.1%), beginning or increasing to talk about AIDS with friends (84.3%), and increasing attention to AIDS situation (75.1%).

For the level of knowledge and attitudes, the three modes of transmission were highly recognized; heterosexual transmission (92.1%), contaminated needle (92.4%), and vertical transmission (89.6%). But the prostitutes had rather high negative response in other items.

The items related to discuss STD and HIV prevention showed the distribution of response; persuasion the clients for condom usage (95.7%), carrying condom (88.4%), examination of the clients' external genitalia (63.6%), refusal the clients whom to be STD (78.7%), interesting the new method in HIV prevention (93.1%), regular test for HIV antibody (52.9%), and regular check up for STD (99.5%).

References

1. Confronting AIDS: Directions for public health, health care and research. Washington, DC, Institutes of Medicine, National Academy of Sciences, 1986.
2. Piot P, Plummer FA, Rey MA, Ngugi EN, Rouzioux C, Ndinya-Achola JO et al. Retrospective seroepidemiology of AIDS virus infection in Nairobi populations. J Infect Dis 1987; 155: 1108-1112.
3. Mann JM. Special feature; Global AIDS into 1990s. J Acquir Immune Defic Syndr 1990; 3: 438-442.
4. Koopman C, Rotheram-Borus MJ, Henderson R, Bradley JS, Hunter J. Assessment of knowledge of AIDS and beliefs about AIDS prevention among adolescents. AIDS Educ Prev 1990; 2: 58-70.
5. Mariasy J, Radlett M. Women: the vulnerable sex. AIDS Watch 1990; 10: 2-3.
6. Annual report. Ministry of Public Health, Thailand, 1989.
7. Deisher R, Robinson G, Royer D. The adolescent female and male prostitute. Pediatr Ann 1982; 11: 819-825.
8. Jones KL, Shainberg LW, Byer CO. Sex. 2nd ed. Happer & Row Publishers, New york, 1973.
9. Kinsey AC, Pomeroy WB, Martin CE. Sexual behavior in the human male. Philadelphia, WB Saunders, 1948, p 595-609.
10. Williams LS, AIDS risk reduction: A community health education intervention for minority high group members. Health Educ Q 1986; 13: 407-421.
11. Price JH, Desmond S, Kukulka G. High school students' perceptions and misperceptions of AIDS. J Sch Health 1985; 55: 107-109.
12. DiClemente RJ, Zorn J, Temoshok L. Adolescents and AIDS: A survey of knowledge, attitudes and beliefs about AIDS in San Francisco. Am J Public Health 1986; 76: 1,443-1,445.
13. Jackman NR, O'Toole R, Geis G. The self-Image of the prostitute. Sociol Q 1963; 4: 150-162.
14. Schaffer B, DeBlassie RR. Adolescent prostitution. Adolescence 1984 Fall; 19 : 689-96.
15. Yankauer A. The persistence of public health problems: SF, STD, and AIDS. (editorial) Am J Public Health 1986; 76: 494-495.
16. Ehrhardt AA. Preventing and treating AIDS: the expertise of the behavior sciences. Bull NY Acad Med 1988; 64: 513-519.
17 Friedland GH, Klein RS. Transmission of the human immunodeficiency virus. N Eng J Med 1987; 317: 1125-1135.
18. Goedert JJ. What is safe sex? Suggested standard linked to testing for human immunodeficiency virus. N Eng J Med 1987; 316: 1339-1342.
19. Hearst N, Hulley SB. Preventing the heterosexual spread of AIDS. Are we giving our patients the best advice? JAMA 1988; 259: 2428-2432.
20. Winkelstein W, Lyman DM, Padian R, et al. Sexual practices and risk of infection by the human immunodeficiency virus- the San Franscisco man's health study. JAMA 1987; 257: 321-325.
21. Darrow WW, Echenberg DF, Jaffe HW, et al. Risk factors for human immunodeficiency virus (HIV) infections in homosexual men. Am J Public Health 1988; 78: 1535-1538.

22. Rozenbaum W, Gharakhanian S, Cardon B, Duval E, Couland JP, HIV transmission by oral sex. [letter] Lancet 1988; 1: 1395.
23. Bolling DR, Voller B. AIDS and heterosexual anal intercourse. JAMA 1987; 258: 474.
24. Feldblum PJ, Fortney JA. Condoms, spermicides, and the transmission of human immunodeficiency virus: a review of the literature. Am J Public Health 1988; 78: 52-54.
25. Bennett FJ. AIDS as a social phenomenon. Soc Sci Med 1987; 25: 529-539.
26. Annual report. VD center, region 12, Songkla. Ministry of Public Health, Thailand, 1987.
27. Consensus statement from consultation on sexually transmitted diseases as a risk factor for HIV transmission 1989. WHO/GPA/INF/89.1.
28. Pepin J, Plummer FA, Brunham RC, Piot P, Cameron DW, Ronald. The interaction of HIV infection and other sexually transmitted diseases: an opportunity for intervention. AIDS 1989; 3: 3-9.
29. Bennett FJ. AIDS as a social phenomenon. Soc Sci Med 1987; 25: 529-539.
30. Valdiserri BO, Lyter DW, Kingsley LA, Leviton LC, Schofield JW, Huggins J, et al. The effect of group education on improving attitudes about AIDS risk reduction. [special issue: Acquired immunodeficiency syndrome]. N Y J Med 1987; 87: 272-278.
31. McAlister AL, Peery C, Maccoby N. Adolescent smoking: Onset and prevention. Pediatrs 1979; 63: 650-658.
32. Vartiainen E, Pallonen U, McAlister A, Koskela K, Puska P. Effects of two years of educational intervention on adolescent smoking. (the North Karelia Youth Project) Bull World Health Organ 1983; 61: 529-532.
33. Job RFS. Effective and ineffective use of fear in health promotion campaigns. Am J Public Health 1988; 78: 163-168.