

KNOWLEDGE, ATTITUDE, AND PREVENTIVE PRACTICE SURVEY REGARDING AIDS COMPARING REGISTERED TO FREELANCE COMMERCIAL SEX WORKERS IN ILOILO CITY, PHILIPPINES

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Abstract. A survey of female commercial sex workers (CSW) in Iloilo City, Philippines, was conducted in October and November 1995 to determine the level of knowledge, attitudes, and preventive practices regarding HIV/AIDS to guide future education programs. CSWs in the Philippines were categorized as registered or freelance. Registered CSWs included "hospitality girls" from licensed bars, night clubs, and massage parlors who have registered with the local social hygiene clinic (SHC). Freelance CSWs are not registered. 110 registered and 46 freelance CSWs were surveyed. We compared demographic data, scores from a basic knowledge test, and preventive practices between registered and freelance CSWs. Demographic data indicate that registered CSWs often originate from provinces outside of the Visayan Islands (25%) and most have never been married (93%). Freelance CSWs included more married (11%) and separated (11%) women from nearby cities. Knowledge test scores of registered and freelance CSWs were not significantly different. 90-96% of CSWs correctly answered questions regarding modes of transmission. However, 25% still believed it is possible to contract AIDS from using a public restroom. Registered and freelance CSWs believed their risks for AIDS to be equally great. However, 38% of freelance CSWs admit to never or almost never using condoms compared to 15% of registered CSWs. Licensed establishments and a support staff at the social hygiene clinic may provide a relatively structured working environment, giving registered CSWs security and confidence to insist on condom use. In most cases, condom use seems to depend on male customer compliance, and CSWs, especially freelancers, cannot afford to insist on condom use. The CSWs indicated that they learned most about AIDS through health personnel and television.

INTRODUCTION

The spread of HIV has been rapid in South and Southeast Asia, in particular Thailand and India. Projections indicate that by the year 2000, the majority of new AIDS cases will occur in Asia (Chin, 1991; WHO, 1992), with 20-50 million adults being HIV positive (Jain *et al*, 1994). By 1992, it was estimated that 23.8% of female commercial sex workers in Thailand's brothels were infected with the HIV (Berkeley, 1993).

The situation in Thailand is fueled in part by its underlying sexual culture (Ford and Koetsawang, 1991). Prostitution is common and the pool of HIV seroprevalence continues to increase (Berkeley, 1993). Unfortunately, other Southeast Asian countries share similar cultural characteristics that make them vulnerable to an AIDS epidemic. In the Philippines, an estimated 100,000 women work in the commercial sex industry in Manila alone (Ford and Koetsawang, 1991). Despite the potential for disaster, the prevalence of reported HIV/AIDS cases

has remained low, even among commercial sex workers (CSW); 0.8/1,000 in a 1987 study (Hayes *et al*, 1990). By November 1994, only 577 HIV seropositive individuals had been officially identified in the Philippines, with females 20-29 years old making up the majority (Philippines Department of Health, 1994).

These women are presumably part of the commercial sex industry based in bars, night clubs, and massage parlors. Although prostitution is officially illegal in the Philippines, a system has been developed in which establishments are required to obtain licenses, and "hospitality girls" from licensed establishments are obligated to register with the local authority. These women are issued work permits, which are renewed on a weekly basis when they visit the local Social Hygiene Clinic (SHC) and are tested for sexually transmitted diseases such as gonorrhea. They are also tested semiannually for HIV and syphilis. The data for the 1987 study on epidemiology of HIV infection among prostitutes were obtained from SHCs throughout the Philippines (Hayes *et al*, 1990).

However, the study excluded a large part of the commercial sex industry that consists of "freelancers" who work on the streets, in restaurants, and from private homes. These women are not registered and most do not visit the SHC. Therefore, statistics on this group of CSWs are difficult to compile. This group makes up an important part of the commercial sex industry in terms of HIV spread. They are not monitored or tested regularly for sexually transmitted diseases and may be at greater risk for HIV infection. They need to be included to accurately describe behavioral characteristics of CSWs.

In an effort to identify attitudes and beliefs that may put CSWs at a greater risk for HIV infection and to define a focus for education programs, we administered knowledge, attitude, preventive practice (KAP) surveys to both registered and freelance workers. KAP surveys are effective in providing a baseline for evaluating intervention programs (Wilson *et al*, 1990; Santana *et al*, 1992;) as well as revealing aspects of education that need to be reinforced in specific population groups such as CSWs (Mak and Plum, 1991; Nzila *et al*, 1991; Neequaye *et al*, 1991; Corwin *et al*, 1991).

Currently most education programs for CSWs operated by both the government and non-government organizations are focused around metro Manila. These are areas where HIV/AIDS is most prevalent (Hayes *et al*, 1990). However, another concern that needs to be addressed is the vulnerability to the spread of the virus in the outlying provinces and islands, which are still relatively isolated from the problem of AIDS. With the closure of US bases in Angeles and Olongapo, HIV infected CSWs may have returned to the provinces or spread out among provincial cities to continue working (Mathews, 1994; Manaloto *et al*, 1990). Furthermore, condom use is rare in outlying provinces and islands because of "intertwined traditional machismo and Catholic doctrine." In short, education programs have yet to reach the provinces (Jiang, 1990). This leaves other provinces and islands, such as the focus area for this study, without effective preventive or education programs and vulnerable to an AIDS epidemic.

The surveys in this study were conducted in Iloilo City (population ~ 240,000) on the island of Panay in October and November of 1995. Panay is largely agricultural island in the Visayas. In the 1987 study of HIV prevalence among CSWs, only

1 out of 896 tested in this region was HIV positive (Hayes *et al*, 1990). We administered questionnaires to CSWs in Iloilo City to describe differences between registered and freelance CSWs in:

- (i) demographic profiles.
- (ii) knowledge and attitude toward AIDS.
- (iii) practices and beliefs.

MATERIALS AND METHODS

Subjects

Commercial sex workers were divided into two categories: (1) registered and (2) freelance. The registered CSWs were defined as those in possession of work certificates issued by the social hygiene clinic. They are employed by bars, night clubs, and massage parlors, where it is commonly recognized that they engage in sex with customers for monetary compensation. Registered CSWs were identified and recruited for the study at the Iloilo social hygiene clinic, where they were required to go weekly to update their work certificates. Some surveys were also conducted at the licensed establishments to include CSWs who do not comply with policies of the registration system.

Freelances were defined as CSWs who had not registered with the SHC. These women generally work in private homes or attract clients by soliciting on streets or in restaurants near recognized areas. A large percentage of these women work in groups from private homes known as "red houses," where freelance CSWs in this study were identified and interviewed. In addition, the staff at the Iloilo SHC devote one day per week to tests and physical examinations for freelance CSWs. Surveys were also conducted on these days at the SHC which may include a more diverse group of freelance CSWs.

Surveys

The questionnaire for this project was based on a KAP survey designed for sexually active men in Thailand (Swaddiwudhipong *et al*, 1990). The survey is stratified into three categories: (1) demographic profiles, (2) basic knowledge of HIV transmission, (3) preventive practices and beliefs.

Information solicited and questions asked in part one and two are summarized in Tables 1 and 2. In part one, subjects were asked about their age, highest level of education, hometown, and marital

status. In part two, subjects were asked to identify nine given statements as true or false. These statements covered modes of HIV transmission and basic knowledge of AIDS.

Table 1

Sociodemographic characteristics by category of commercial sex workers, Iloilo City, Philippines, 1995.

Social demographics	registered n = 110	freelance n = 46	p-value
Age	23 ± 6	21 ± 5	0.09
Education			0.29
high school graduate or higher	21%	30%	
Hometown			0.02
Iloilo Province	32%	33%	
outside Iloilo, within Visayas	43%	60%	
outside Visayas	25%	7%	
Marital status			0.02
single	93%	78%	
married	5%	11%	
separated	2%	11%	

Ages are given as the mean ± standard deviation. Two tailed *t*-test was used to compare ages between the two groups. All other comparison were carried out using the χ^2 test. The p-values are listed.

Table 2

Proportion of commercial sex workers by category responding correctly to statements regarding AIDS, Iloilo City, Philippines, 1995.

Statements	registered n = 110	freelance n = 46	p-value
AIDS is now curable (False)	72%	61%	0.07
AIDS can be fatal (True)	96%	87%	
If a person does not look sick, he does not have AIDS (False)	68%	76%	
Using a condom reduces the risk of getting AIDS (True)	81%	85%	0.10
Modes of transmission-AIDS can be transmitted:			
During sexual intercourse (True)	94%	89%	
By transfusion of infected blood (True)	90%	91%	
By sharing needle with infected person (True)	92%	91%	
By using toilets in public restrooms (False)	79%	65%	
From pregnant woman with AIDS to her baby (True)	95%	100%	
Average score (% correct out of 9 questions)	85.2 ± 13.9	82.6 ± 11.5	

The correct answers are given in parentheses. Numbers in the registered and freelance columns indicate the percentage of subjects that answered the question correctly. Average scores are shown as the mean ± standard deviation. χ^2 tests were used to compare the percentages of correct answers between the two groups, while two tailed *t*-test was used to compare the average scores. p-values < 0.10 are listed. None of the comparison achieved p-value < 0.05.

In part three, subjects were asked to make the following choices: (1) compare with the general public and define their risks for HIV infection as greater, equal, or lesser; (2) describe frequency of condom use as always, almost always, sometimes, almost never, or never; (3) categorize clients as mostly Filipino or foreign; (4) indicate the most effective education media as health personnel, television, newspaper, radio, or others.

The surveys were given at the social hygiene clinic and workplaces for CSWs. Oral consent was obtained and interviews were conducted in English or translated when necessary.

Data analysis

We employed two types of statistical analyses. Two tailed t-tests were used to compare quantitative data between any two groups. This included analyses of age and score data. Scores were calculated as the percentage of questions answered correctly in part 2 of the survey.

The second type, X^2 test, compared frequencies between two groups. Two way or multiway contingency tables were set up in Statview SE and X^2 values with Yates' correction were calculated. All data were analyzed in this manner except for age and score.

The data were compiled and analyzed using statistical software in Microsoft Excel, and X^2 values of contingency tables were calculated using Statview SE.

RESULTS

Demographics

We interviewed 110 registered and 46 freelance CSWs. Table 1 summarizes the demographic profile of the subjects. There were no significant differences between the age and level of education between the two groups. Most were in their early twenties and 20 to 30% had finished high school. However, differences were significant in the geographic locations of their city of origin ($p = 0.02$) and marital status ($p = 0.02$). Up to 25% of registered CSWs had come from outside of Visayas, with a majority of them from Luzon or Mindanao. In contrast, only 7% of freelancers had traveled from outside of Visayas. Although the majority of

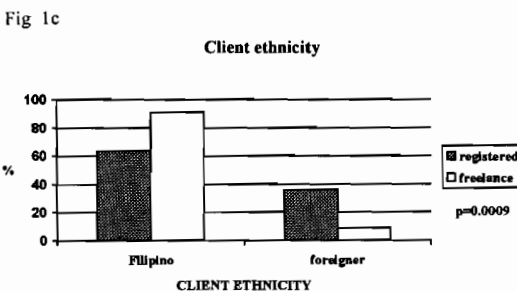
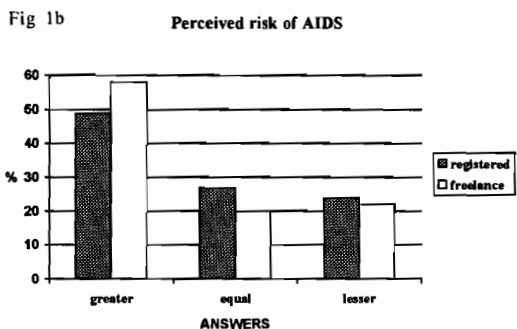
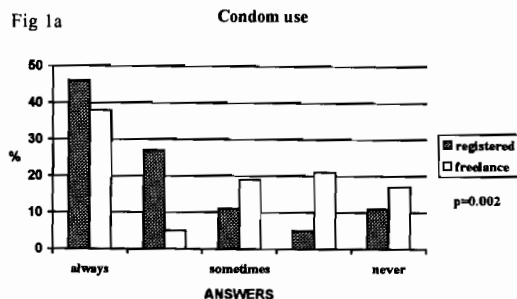


Fig 1—Comparisons between registered and freelance commercial sex workers, Iloilo City, Philippines, 1995.

The percentage of subjects are indicated on the vertical axis to standardize for the unequal number of subjects in each group. Registered CSWs are represented by the shaded bars and freelance CSWs are represented by the unshaded bars. X^2 tests were used to compare the distribution of answers between the two groups. p-values < 0.05 are shown.

(a) Frequency of condom use. Subjects were asked to categorize their frequency of condom use as always, almost always, sometimes, almost never, or never.

(b) Perceived risk of AIDS. Subjects were asked to classify their risk of contracting AIDS as greater, equal or lesser than the general public.

(c) Client ethnicity. Subjects were asked to identify the majority of their clients as Filipino or foreign.

the freelance CSWs were single, 22% were married or separated, compared to 7% of registered CSWs.

AIDS knowledge and attitude

The true or false statements presented to the CSWs are listed in Table 2. The difference in scores between registered and freelance CSWs was not significant at the 95% confidence level. The average score of registered CSWs was $85.2 \pm 13.9\%$ compared to $82.6 \pm 11.5\%$ for freelancers. We also calculated, for each question, the percentage of subjects that answered correctly. The differences between the two groups were not significant at the 95% confidence level for any of the questions. Both groups scored high in identifying the modes of transmission with the exception that about one quarter of all subjects still believe that AIDS can be contracted by using public restroom.

Practice and beliefs

CSWs were asked how often condoms were used by their clients. 74% of registered CSWs claimed that condoms were used always or almost always, compared to 43% of freelancers. 38% of freelancers admitted to never or almost never using condoms compared to 15% of registered CSWs (Fig 1a). The differences between the two groups were significant ($X^2 = 17.14$; $p = 0.002$).

CSWs were also asked to categorize their perceived risk of contracting AIDS relative to the general public as greater, equal, or lesser (Fig 1b). About half of all CSWs understood that they are at greater risk, and the differences in answers between the two groups were not significant ($X^2 = 1.40$; $p = 0.50$).

However, client ethnicity does differ significantly between the two groups ($X^2 = 10.93$; $p = 0.0009$; Fig 1c). 36% of registered CSWs claim that most of their clients are foreigners from other Asian countries, whereas only 9% of freelancers indicate that foreigners make up a majority of customers.

We also asked all CSW subjects to indicate how they acquired their knowledge regarding AIDS. Table 3 shows the summary of their answers. 47% listed health personnel as their most important channel for learning about AIDS and 23% listed television as most important.

DISCUSSION

Demographic differences between registered and freelance CSWs

The results of this study demonstrate some of the demographic, behavioral, and attitudinal differences between registered and freelance CSWs. The demographic data point out that registered CSWs tend to include more young women who have traveled far away from home in search of new opportunities. It is likely that these women who are away from their families find the structure of licensed establishments safer. For the same reason, foreigners may frequent these establishments more often as a safer alternative to soliciting prostitution on the streets. Both CSWs and foreign clients may find security in the relatively structured environment of the registration system and licensed bars, night clubs, or massage parlors.

In contrast, families of most freelance CSWs reside within the Visayas. Although most were unmarried, a significantly greater percentage than registered CSWs were either married or separated. They also held a large variety of jobs, from housewives to waitresses. Some may work as CSWs locally, with a largely Filipino customer base, and only occasionally for extra income. They are a more diverse group in terms of marital status and occupation.

Focus of future education programs

This study also revealed an interesting lack of correlation between the perceived risk of AIDS and frequency of condom use in freelance CSWs. As the data indicate, freelance and registered CSWs perceived their risk of contracting AIDS as equally great. However, freelance CSWs tend to use condoms less often despite this concern. It is possible that the local Filipino men who solicit prostitution from the freelance CSWs may not be aware or concerned about AIDS and often refuse to use condoms. In contrast, foreigners who make up a larger percentage of the customer base for registered CSWs may be more concerned about AIDS and insist on using condoms. This idea presumes that the decision on condom use is chiefly given to the male customer. The assumption is perhaps

Table 3

Most effective education media for commercial sex workers, Iloilo City, Philippines, 1995.

Source of information	CSWs N = 156
Health personnel	47%
Television	23%
Newspaper	15%
Radio	8%
Others	7%

Subjects were asked to choose the source by which they learned most about AIDS. All commercial sex workers were combined.

accurate given that the most common reason, according to the women, for not using condoms is customer dissatisfaction.

It is also possible that the relatively controlled and structured environment of licensed establishments give the registered CSWs a greater sense of control and power, and allows them to be more assertive and insist on condom use. For the freelancers, even though 85% knew that using condom reduces their risk of contracting AIDS, 38% admitted to never or almost never using condoms. CSWs working outside of the registration system may lack the sense of control and feel powerless to make decisions on condom use. In either case, evidence indicates that the power to make decisions in the CSW-client interaction is at the core of the issue.

Two elements emerge as crucial aspects of education that should be reinforced. First, it is essential that education be focused on male customers and not just on CSWs. Traditional Filipino society, especially in more rural areas, is not sexually egalitarian. Socio-cultural constraints still limit the privileges of women. In the society outside of the sex industry, surveys indicate that it is the male who decides on the use of condoms (Mathews, 1994). We can infer from our study that a similar hierarchy exists in the sex industry. Given the current social structure, the pragmatic solution would be to educate the male customers and influence their decisions. Outreach programs should target male groups who are possible customers of the CSWs. This may involve a study to identify the predominant age and

socioeconomic groups that make up the customer base. These groups are likely to be different for registered and freelance CSWs. By raising the general awareness of AIDS in male customers, emphasizing their increased risk and effective preventive measures, they may be more willing to comply with condom use.

Secondly, education or policy changes should be directed at giving a sense of control, confidence, and self-worth to the CSWs, in particular the freelance workers. This is an ambitious goal with wide ranging implications. The program may involve more general education, alternative skill developments, or ways to set up a structured system in which freelance workers can feel more secure. The specifics of education programs or policy changes need to be determined.

Challenges to face in AIDS education

It is apparent from the results that the level of knowledge regarding modes of HIV transmission is high in CSWs. However, there are still misconceptions that AIDS can be contracted by using a public restroom. Other studies in Philippines and Thailand confirm the need to dispel unfounded fear of casual AIDS transmission that may lead to discriminative behavior towards people with HIV infection (Swaddiwudhipong *et al*, 1990). Therefore, one challenge of AIDS education programs will be to balance awareness of AIDS with understanding and compassion for people with HIV infection.

Conclusion

Prostitution is a problem of socioeconomics, not of religious or moral values. The decision of condom use is given to the male customers, and many CSWs cannot afford to turn away customers who refuse to use condoms. Similar conclusions were made in another study of CSWs in Zimbabwe (Wilson *et al*, 1990). While economics is at the root of the problem, it is undeniable that the number of AIDS cases continues to soar. It is expected that Asia will emerge as the continent affected most by new cases, surpassing sub-Saharan Africa (Chin, 1991). Therefore while economic problems are being addressed in developing countries such as the Philippines, the rapidly growing number of HIV infections necessitates the establishment of education programs now.

This study indicates that health personnel and television campaigns are the most useful channels of communication for educating CSWs. Outreach programs by health personnel would likely be effective in reaching freelance CSWs. Furthermore, these education programs need to target the male customer population as well. For the CSWs, education needs to focus not only on teaching the existence, modes of transmission, and measures of prevention of AIDS, of which the level of knowledge seems high relative to other countries (Wilson *et al*, 1990; Swaddiwudhipong *et al*, 1990). More importantly education programs and policy changes need to be directed at issues of empowerment, giving CSWs a sense of security, self-respect, self-worth, confidence, and control.

ACKNOWLEDGEMENTS

The authors wish to thank Dr Patricia Inayan and the staff at the Iloilo Social Hygiene Clinic for help with the surveys and Dr Paul Basch for invaluable advice throughout the study and for editing the manuscript. The work was supported by a Stanford Emge Traveling Scholarship awarded to TI Liu.

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