

## Preventive Behaviors against HIV Transmission Adopted by Japanese Commercial Sex Workers (CSWs)

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### Abstract

To assess self-protective behaviors of commercial sex workers (CSWs) against HIV transmission, a consecutive study was conducted at an obstetric-gynecology clinic in the largest "soapland" area in Tokyo. Among 208 CSWs interviewed, only half (107) regularly requested (RR) the clients to use condoms. Sixty-two percent of RR had learned from others ("learners") oral application of condoms while only 39% of NRR (non-regular requesters) did ("non-learners") ( $p=0.001$ ). Seventy-six percent of the learners were only "rarely" or "never" detected by the clients regarding condom application compared with only 23% of the non-learners ( $p<0.001$ ). While 90% of additionally recruited 40 NRR reported that they would request condom use by a "suspicious" client, none had experienced violence even when the clients found the secretive application. The oral application of condoms appears to be a transferable and potentially effective preventive behavior.

**Key words :** Condom use, Preventive behaviors, HIV, Japan, Commercial sex workers

### Introduction

By mid-1995, a decade after the first case of acquired immunodeficiency syndrome (AIDS) was reported, the magnitude of the epidemic in Japan (pop. 120 million) is still remarkably small: only 1,620 cumulative cases of HIV carriers have been reported (excepting 1,803 infected hemophiliacs but including 880 foreigners)<sup>1)</sup>. Though the first report of a commercial sex worker (CSW) with AIDS in 1987 set off a panic throughout Japan causing the shutdown of many "soaplands" - the commonest type of brothel in Japan, it was uncovered subsequently that the "soaplands" were practically free from HIV contamination (as far as native CSWs were concerned)<sup>2)</sup>. One of the

authors (I.U.), running an obstetrics and gynecology (OB-GYN) clinic within the largest soapland area (pop. of CSW ca. 1,000) in Tokyo for two decades, has taken samples of more than 22,000 blood specimens out of about 5,000 CSWs since 1986 and found not a single HIV seropositive case among them (with exception of three positive cases among those from a Southeast-Asian country)<sup>3)</sup>. Meanwhile reports of sexually transmitted disease (STD) surveillance in the metropolitan area have shown a steady decline in the incidence of STDs since the AIDS prevention campaign reached its peak in 1990<sup>4)</sup>.

Although the majority of the "soaplands" encourages condom application, many do not comply with this advice for fear of reducing the commercial value of sex. Thus the apparent uncontamination observed among the Japanese CSWs constituting a high risk group suggested several possible explanations: 1) the rate of regular condom use is very high, 2) the prevalence rate of HIV positive clients is extremely low, and 3) they practice ad hoc precaution when they deal with a "suspicious" client. We conducted a series of surveys to uncover the preventive behaviors of the CSWs working in a "soapland" re-

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gion.

## Subjects and Method

**Subjects:** The 1st survey: 208 CSWs in the "Yoshiwara" area of Tokyo who visited the OB-GYN clinic for regular checkups in the area (from December 1994 to January 1995). The 2nd survey: 40 additional CSWs who do not regularly ask nor use condoms (October 1995). The prostitution provided at the "soapland" is characterized by its control on CSWs regarding their health status especially on STDs. This makes a contrast to uncontrolled prostitution offered by street CSWs.

**Categories of preventive behaviors:** a) Requesting condom use (with client compliance), b) rejecting intercourse, c) oral application of condoms without being noticed by clients during sexual intercourse (Holding the pocket at the tip of a condom between the front teeth and stabilizing its opening with the lips, CSW instantly applies it onto the penis).

**Method:** In the 1st study, they were consecutively asked by one of us (I.U.) during a clinical consultation regarding the following items; demographic attributes; the past history of sexually transmitted diseases; average number of their clients per day; the practice of regularly asking condom use; the actual rate of regular condom use; the frequency of encountering uncooperative clients; response to the client who refuses the condom use; the frequency of being detected by the client as to her attempt to orally apply a condom without the client's knowledge; and the learning source of the oral condom application. Since the inquiry about educational background caused some embarrassment, it was terminated halfway.

In the 2nd study, additional 40 CSWs who do not practice regular condom use were interviewed to ascertain a) if they requested condom use or actually used it when the clients appeared "suspicious" in terms of infecting STD, b) the criteria to recognize a suspicious client, and c) the history of having incurred violence as a consequence of being detected by the client of the condom use without his knowledge. The chi-square test was used for the analysis of proportion.

## Results

The average age was 28 years; 84.1% had a past history of STD; the ordinary number of their clients ranged from three to six per day. The educational background obtained from the 73 who agreed to give information (26 refused) was skewed to the lower side: 29 (40%) had junior high school education, 43 (59%) high school, and only one (1%) had schooling at the college level (the general female population, age > 25 years: primary to junior high school 36%; high school 47%; college/university 17%).

The rate of regularly requesting condom use and of actual regular use was unexpectedly low, each accounting for a little more than one half of the subjects (107/207; 113/207). Regular requesters (RR) of condom use and non-regular requesters (NRR) show marked behavioral differences (Table): while 95% of RR replied that their chance of being rejected as to condom use was less than 1/2, 94% of NRR had more than 1/2 chance of rejection ( $p < 0.001$ ); 77% of RR rejected having sex with uncooperative clients, whereas 98% of NRR acquiesced to the demand of uncooperative clients ( $p < 0.001$ );

62% of RR have learned how to apply condom orally from the manager or from peers (learner), while only 39% of NRR did ( $p = 0.001$ ). There was no significant difference between RR and NRR regarding the past history of STD.

Unexpectedly many indicated that they would selectively request condom use when the client appeared "suspicious"—information not initially intended to be fully explored. Additional 40 CSWs who do not regularly use condoms were asked as to their attitudes towards a suspicious client, and 36 (90%) of them replied they would request using condoms or secretly use them. Their criteria to recognize a suspicious client are related to the filthy appearance of the client (82.5%) and more specifically the presence of morphological abnormalities such as complete phimosis, warts or tenderness elicited at grabbing the penis (55%), informational data (the clients' history of overseas stay, etc., 22.5%) and others (22.5%). None included a foreigner in the category. None of the 40 had experienced violence even when the secretive application of condom was noticed by the client during or after intercourse. But three (7.5%) had encountered protests from the clients.

The successful condom application appears to be strongly correlated to the professional coaching from the manager or from peers (Figure): 98% of the learners predominantly employed an oral application of condom while 69% of the non-learned preferred manual application ( $p < 0.001$ ); moreover, 76% of the learners replied that they were "never" or "rarely" noticed by the clients at the time of application or during intercourse while only 23% of non-learners replied so ( $p < 0.001$ ).

There was no significant correlation between the successful application and the educational level or age.

## Discussion

Our study uncovered that although the rate of regular condom use by the CSWs is relatively low, selective condom application is conducted by most of NRR against the "suspicious" client. Coupled with the fact that not a single case of HIV seropositivity has been reported among the CSWs for close to a decade, these findings strongly suggest that the HIV prevalence rate among clients patronizing the "soapland" remains extremely low and raises the possibility that the CSWs are generally adept in screening suspicious clients, thereby reducing the risk of STD/HIV transmission.

Although the study subjects constitute only a fraction of CSWs working at "soaplands", two factors suggest that they are representative of such CSW groups. First, nationwide monitoring systems covering other "soapland" areas have not detected an HIV seropositive case. Second, the practice of oral condom application at the soaplands appears, if not epidemiologically confirmed, to be pervasive in Japan, which was a relatively rare phenomenon a decade ago.

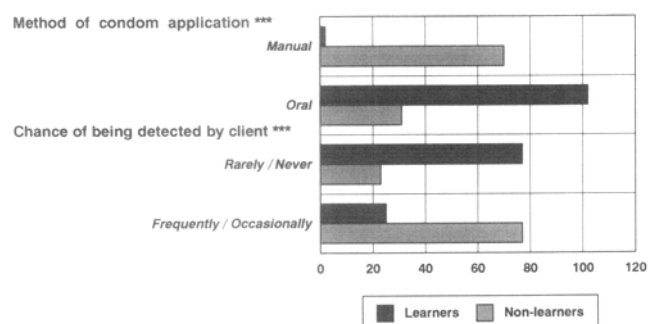
What significance does the practice of the secretive (oral) condom application bear in terms of preventing HIV transmission through prostitution in other countries? The preventive behavior of CSWs was one of the most heated issues raised at an international conference on AIDS held in Thailand in the autumn of 1995<sup>5)</sup>. The high success rate of the oral condom application reported by the CSWs who have learned from their peers or from the manager suggests its transferability. The finding that the success is not related to the CSW's educa-

tional background or age also suggests that young CSWs with little education can readily master the technic. However, no clients, upon detecting the condom use, are said to have resorted to violence. Without the clients' relatively gentle, if not cooperative, response, CSWs are unlikely to be encouraged to practice the oral condom application and hence its diffusion. Violent behaviors of dissatisfied clients have been reported

elsewhere<sup>6)</sup>, suggesting potential limitation of using the technique in such rough settings.

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**Fig. Method of condom application and chance of detection by clients.**

Learner (N=105), non-learners (N=101).

The data are expressed by the number of responses.

\*\*\*p<0.001.

**Table STD/HIV preventive behaviors of regular and non-regular requesters of condom use.**

	Regular requesters N = 107 (%)	Non-regular requesters N = 100 (%)
Chance of clients' refusing condom use***		
< 0.5	102 (95.3)	6 (6.3)
> 0.5	5 (4.7)	89 (93.7)
Response to the clients' refusal to use condoms***		
Reject intercourse	82 (76.6)	0 (0.0)
Intercourse without condoms	19 (17.8)	98 (98.0)
Apply condoms without clients' knowledge	6 (5.6)	2 (2.0)
Method of condom application**		
Oral	78 (73.6)	54 (54.5)
Manual	28 (26.4)	45 (45.5)
Learning the secret application of condoms from the manager or peers**		
Yes	66 (61.7)	38 (38.8)
No	41 (38.3)	60 (61.2)

\*\* p < 0.005      \*\*\* p < 0.001

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