

Prevalence of and predictors for consistent condom use among female sex workers in Hsinchu City, Taiwan

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Objectives: The aims of the study were to explore the prevalence of and predictors for consistent condom use (CCU) among female sex workers (FSWs) in Hsinchu City, Taiwan. **Methods:** Between July and October 2006, a cross-sectional survey was conducted with 155 FSWs. Descriptive analyses, Chi-square or Fisher's exact tests, and logistic regression analysis were used to analyze the data. **Results:** CCU was reported by 63% of the study participants. Those who consumed less alcohol, knew the benefits of condom use, perceived no reduction in pleasure with condom use, or had good condom use skills tended to be consistent condom users. Further multiple logistic regression analysis revealed that good condom use skills (OR 14.80; CI 2.85-76.91; p=0.001) and the perception that there was no reduction in pleasure with condom use (OR 7.41; CI 1.14-48.24; p=0.036) were significantly and positively associated with CCU. **Conclusions:** The prevalence of CCU needs to be enhanced among FSWs. Whether the findings from the participating city can be generalized to other cities of the nation requires further investigation. We also suggest educating FSWs in good condom use skills. (*Taiwan J Public Health*. 2010;29(6):528-537)

Key words: *predictors, condom use, sex workers, prevalence*

INTRODUCTIONS

Sex workers (SWs) and their clients are both at increased risk of acquiring sexually transmitted infections (STIs) or even HIV/AIDS. The prevalence of HIV/AIDS and STIs

among SWs is considered high when compared to that of the general population [1-5]. Since a complete cure or vaccine is not available [6,7], preventive measures are essential in reducing the number of HIV infections [8]. Consistent condom use (CCU) is one of the preventive measures that can effectively control the spread of such diseases among SWs. A lack of condom use may substantially increase the SW's risk of contracting HIV [9-11]. The most well-known structured intervention promoting condom use is the Thai 100% condom program which made dramatic improvements in increasing the rates of CCU among female sex workers (FSWs) and their clients, and resulted in a decline in the

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incidence of HIV/AIDS and STIs in Thailand [12-14].

There are multiple barriers to condom use. These include socioeconomic factors and the complex interrelationships between SWs, their clients, their nonpaying partners, brothel owners and the community [15]. In addition, previous studies have demonstrated that a number of psychological factors were associated with condom use among SWs. These factors included knowledge about HIV and other STIs, awareness of the risk of HIV/STIs, perceived reduction in pleasure with condom use, condom availability, and techniques of condom use [16-21].

Data about sex work in Taiwan is limited and little is known about the prevalence of condom use among SWs. This study sought to estimate the prevalence of CCU and to explore the factors associated with CCU among FSWs in Taiwan. Based on the findings from prior studies and the purposes of this study, we proposed the conceptual framework shown in Figure 1. We hypothesized that both personal characteristics and factors related to condom use were potentially associated with CCU.

MATERIAL AND METHODS

Between July and October 2006, a cross-

sectional survey of FSWs was carried out in Hsinchu City, Taiwan. Female workers from 46 registered establishments in the eight sectors possibly related to the sex industry, including hotels, barbershops, beauty salons, bathing houses, entertainment venues, swimming pools, cinemas, and others (such as nightclubs), were the study population. People in these establishments did not acknowledge their occupations as prostitutes, although female sex workers are generally defined as women or girls who are paid by men for having sex with them. A sample of 539 potential participants was selected; however, only 155 questionnaires were valid. Each potential study participant was given an informed consent form which described the objectives and contents of the research while stating that the survey was anonymous. Before the commencement of data collection, the research protocol was reviewed and approved by Research Review Panel of Yuanpei University.

The survey instrument was developed according to the findings from prior research and a literature review done by the authors. Validity was checked by seven experts in related fields. The questionnaire included questions about the study participants' socio-demographic and lifestyle characteristics, awareness of benefits of condom use, perceived reduction

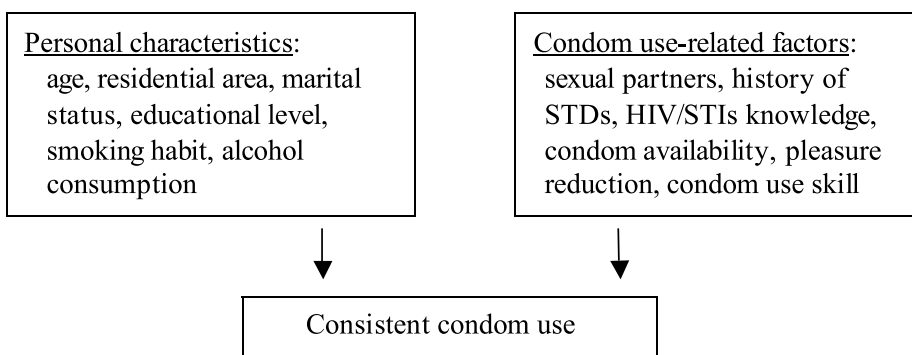


Figure 1. Conceptual framework of the study

in pleasure with condom use, condom use skills, and whether condom use was consistent. The reliability of the questionnaire, such as the measure of condom use, was assessed by calculating the Cronbach's alpha for the items on each scale. The analysis revealed an acceptable level of internal consistency for each scale with an alpha coefficient over 0.7.

Socio-demographic and lifestyle characteristics

The literature suggests that certain socio-demographic and lifestyle characteristics are important predictors for CCU among SWs [9-11]. The following factors were included in the questionnaire: age, educational level (more than senior high, senior high, less than senior high), marital status, residential area, active smoking habit, alcohol consumption, condom availability, history of STDs, trustworthy sexual partners, and number of sexual partners in the previous month.

Awareness of benefits of condom use

Increased knowledge about pregnancy, STDs and HIV/AIDS may lead to CCU behavior among sex workers [11,22]. This variable was measured by asking study participants five questions about awareness of the benefits of condom use, and a total score was then calculated.

Perceived reduction in pleasure with condom use

SWs perceptions about attributes of condoms may influence their decisions about condom use. SWs who had favorable opinions about condom attributes of condoms were more likely to use condoms than were those who did not have such opinions [11,23]. Measures of perceived attributes of condoms were elicited by asking study participants whether or not

condom use reduced sexual pleasure.

Condom use skills

Studies have shown that good condom use skills were associated with increased condom use [16,24]. Correctness of condom use was measured by a five-point Likert scale derived from four-step condom use as described in Oladosu's study [11]: (1) opening the condom wrapper by the corner with the fingers, (2) holding the condom by the tip with the fingers to prevent air from entering, (3) rolling the condom completely to the base of the phallus, and (4) removing the condom from the phallus while holding the ring. The total score for condom use skill was dichotomized at 8, a value derived from cut-off analysis of the receiver operating characteristic (ROC) curves, with a sensitivity and specificity of 0.94 and 0.86, respectively.

Consistent condom use (CCU)

The primary dependent variable of the study was CCU between FSWs and their recent sexual partners. The CCU was measured using a five-point Likert scale: Do you always, almost always, sometimes, almost never, or never use condoms with your clients? A response was classified as CCU if the respondents used a condom with their clients 'always or almost always'.

Data analysis was conducted with SPSS software (SPSS, Chicago; version 17.0). Descriptive statistics were used to describe the characteristics of study participants. To gain adequate statistical power in the analysis, some variables were categorized into only two groups due to the limited sample size in certain strata. Bivariate analysis, using either Chi-square tests or Fisher's exact test, was also performed to test for the difference in the proportion of CCU in association with each potential predictor. To

determine the significant independent predictors of CCU, a multiple logistic regression was employed. All factors potentially associated with CCU are listed in Table 1 and were included in the multivariate logistic regression analysis. These variables were forced to enter the model simultaneously. A p-value less than 0.05 was considered statistically significant.

RESULTS

The characteristics of the study sample are presented in Table 1. A total of 155 FSWs successfully completed the questionnaire, representing a response rate of 29%. More than 30% of the study participants were <25 years of age. A small proportion of the women (17.6%) attended colleges or universities. The majority (58.9%) were single. Approximately 70% of the participants were from non-metropolitan areas. Additionally, 76.1% of the study participants had 3 or fewer sexual partners, and 66.2% had sex with trustworthy sexual partners. Some 65% of the study participants were active smokers, 65.7% consumed alcohol regularly, and 47.7% self-reported having a history of STDs. Twenty six point nine percent of the study participants were aware of the benefits of condom use, 72.3% made condoms available by providing condom themselves, and 52.5% believed that pleasure was reduced when using condoms. We also noted that 44.0% of the study participants had poor condom use skills.

Some 63.4% (92/155) of the study participants reported CCU when they had sex with recent paying partners. Age, residential area, marital status, educational level, having sex with trustworthy sexual partners, number of sexual partners, being an active smoker, having a history of previous STDs and condom availability were not significantly associated with CCU. On the other hand, alcohol

consumption was significantly associated with CCU as study participants who regularly consumed alcohol were less likely than those without such behavior to have CCU (57.6% vs. 75.0%, $p=0.042$). Additionally, CCU was found to be positively associated with awareness of the benefits of condom use. Those who were aware of the benefits of condom use were more likely to have CCU (76.9% vs. 58.5%, $p=0.041$). On the other hand, those who perceived reduced pleasure with condom use were significantly less likely to have CCU (53.4% vs. 74.2%, $p=0.011$). Study participants who were considered skillful in condom use were more likely to become continuous condom users (76.5% vs. 32.5%, $p<0.001$). (Table 1)

Table 2 shows the covariate adjusted odds ratio (AOR) of CCU in association with the variables which were candidate predictors for CCU. Good condom use skills (OR 14.80; CI 2.85-76.91; $p=0.001$) and perception of no reduction of pleasure with condoms (OR 7.41; CI 1.14-48.24; $p=0.036$) were identified as significant independent predictors for CCU. Further analysis suggested that *Rolling the condom completely to the base of the phallus* was the skill that the study participants were most lacking, followed by the skill of *Preventing air by holding the condom at the tip with fingers*. On the other hand, *Opening a condom wrapper with fingers at the corner* was the skill that the study participants found to be the least difficult.

DISCUSSIONS

The result demonstrated that 63.4% of the FSWs used condoms consistently. Our study also indicated that good condom use skills and the perception of no reduction in pleasure with condom use were positively and independently associated with CCU. This was consistent with

Table 1. Characteristics of the study sample (n=155)

Variables	n ¹	CCU				p-value ²
		Yes		No		
		n	%	n	%	
Age (years)						
<25	46	27	58.7	19	41.3	0.275
≥25	94	58	68.2	27	31.8	
Mean ± SD	30.2 ± 9.4					
Median (IQR)	28 (24-35)					
Range	(18-56)					
Residential area						
Non-metropolis	101	64	68.1	30	31.9	0.135
Metropolis	44	23	54.8	19	45.2	
Marital status ³						
Single	89	57	64.8	31	35.2	0.827
Otherwise ⁴	62	34	63.0	20	37.0	
Educational level						
Lower than junior high	37	20	60.6	13	39.4	0.864
Senior high	85	53	65.4	28	34.6	
College and higher	26	16	61.5	10	38.5	
Having sex with trustable sex partners						
Yes	98	55	61.1	35	38.9	0.566
No	50	33	66.0	17	34.0	
Number of sex partners in the previous month						
0-3	118	55	61.1	35	38.9	0.374
≥4	37	20	57.1	15	42.9	
Active smoker ³						
Yes	101	58	63.0	34	37.0	0.894
No	54	34	64.2	19	35.8	
Alcohol consumption ³						
Yes	98	53	57.6	39	42.4	0.042
No	51	36	75.0	12	25.0	
History of STDs ³						
Yes	74	40	59.7	27	40.3	0.385
No	81	52	66.7	26	33.3	
Aware benefit of condom use						
Yes	39	30	76.9	9	23.1	0.041
No	106	62	58.5	44	41.5	
Condom availability						
Yes	112	61	59.8	41	40.2	0.160
No	43	31	72.1	12	27.9	
Perceived pleasure reduction with condom use						
Yes	73	39	53.4	34	46.6	0.011
No	66	49	74.2	17	25.8	
Condom use skill ⁵						
Poor	40	13	32.5	27	67.5	<0.001
Good	51	39	76.5	12	23.5	
Total	155	92	63.4	53	36.6	

¹ Inconsistency between total sample size and total sample size sum of individual variables was due to missing information.

² Based on Chi-square test or Fisher's exact test.

³ Variables were categorized into two groups due to small sample size.

⁴ Including married, living with partners, divorced, separated, and widowed.

⁵ Based on Receiver Operating Characteristic curves.

SD, standard deviation; IQR, inter-quartile range; STDs, sexually transmitted diseases; CCU, consistent condom use.

Table 2. Multiple logistic regression analysis of variables associated with consistent condom use among female sex workers

Variables	AOR	(95% CI)	p-value
Age (years) (≥ 25 / <25)	1.40	(0.22 - 8.74)	0.722
Residential area (Non-metropolis/Metropolis)	1.09	(0.22 - 5.54)	0.914
Marital status (Single/Otherwise)	5.26	(0.75 - 36.78)	0.094
Educational level (Per level increase)	1.76	(0.37 - 8.45)	0.482
Having sex with trustable sex partners (Yes/No)	1.28	(0.21 - 7.84)	0.788
Number of sex partners in the previous month (≥ 4 /0-3)	8.07	(0.86 - 75.82)	0.068
Active smoker (Yes/No)	1.06	(0.15 - 7.36)	0.956
Alcohol consumption (No/Yes)	2.20	(0.43 - 11.21)	0.341
History of STDs (Yes/No)	1.64	(0.25 - 10.97)	0.611
Aware benefit of condom use (Yes/No)	7.01	(0.49 - 99.54)	0.150
Condom availability (No/Yes)	1.02	(0.08 - 12.33)	0.989
Perceived pleasure reduction with condom use (No/Yes)	7.41	(1.14 - 48.24)	0.036
Condom use skill (Good/Poor)	14.80	(2.85 - 76.91)	0.001

CI: confidence interval; AOR, adjusted odds ratio.

the findings from a number of previous studies from Western nations [11,16,24]. Findings from our study suggest a need for educational intervention to improve condom use skills among FSWs in Taiwan.

In addition to good condom use skills and the perception of no reduction in pleasure with condom use, our study also reported an increased likelihood of CCU among the FSWs who did not consume alcohol regularly and who were aware of the benefits of condom use; however, the elevated ORs associated with these factors did not reach statistical significance. A previous Australian study which reported that 66.8% of FSWs consistently used condoms found that several factors were associated with CCU. These included alcohol consumption, knowledge regarding the advantages of condoms, perceived reduction in pleasure with condom use and condom use skills [25]. A meta-analysis also reported that those who were not consistent condom users had a tendency to not use a condom when they were drunk as alcohol may have affected judgment and thereby promoted risky sexual practices

[26]. A study by Todd et al. [27] indicated that FSWs might consider condom use to be an effective way of reducing HIV infection. Our study noted that FSWs who perceived no reduction in pleasure with condom use were more likely to use condoms consistently. This was similar to the findings from a number of previous studies, suggesting that the FSWs with favorable attitudes towards condom use tended to be consistent condom users [11,18,23,25]. Our study results were essentially similar to findings from the aforementioned studies which were all conducted in Western societies. This may suggest few cultural differences in factors associated with CCU among FSWs.

Findings from a previous study indicated that there were still a large number of FSWs who were not consistent condom users and thus called for an urgent need to implement certain educational interventional strategies with the FSWs [11]. In order to facilitate and reinforce protective behaviors and to reduce HIV-related vulnerability among FSWs, an educational program that can effectively promote CCU in FSWs should be considered.

The main objectives of the interventional efforts should include activities such as raising FSW's awareness of safe sex, delivering knowledge about condom use, and instructing in correct condom use. Empirically, the Thai government's '100% Condom Use Policy' in sex establishments has been very effective [14]. Previous studies have also argued that condom promotion programs targeting SWs and their clients should emphasize that HIV and STDs are preventable, and CCU is the best preventive strategy [12,13]. Our study findings, combined with previous experience in other countries, suggested that future studies conducted in Taiwan should initiate certain intervention programs particularly those that promote condom use skills as suggested by Yao et al. [28].

In a study conducted in the mid-90s', Chen et al. studied the prevalence of certain sexually transmitted diseases including HIV in a sample of commercial SWs in northern Taiwan [29]. They noted an apparent variation in the prevalence in SWs from massage parlors, karaoke bars, and brothels. In a subsequent study, Chen et al. investigated condom use among SWs. Data showed that only 42% of the SWs consistently asked their boyfriends or husbands to wear condoms when they had sexual intercourse. This was significantly lower than the rate of condom use with their customers [5]. Chen et al.'s study also noted a negative correlation between knowledge about AIDS and the rate of condom use among those SW's boyfriends and husbands. Another study conducted in central Taiwan surveyed 41 teen FSWs and noted that these underprivileged adolescent girls had a poor understanding of safe sexual behaviors and sexually transmitted diseases [30]. Unlike the previous surveys that investigated disease prevalence among SWs [29,30], our study sought to explore the factors associated with CCU among FSWs in

Taiwan. The results obtained from our study may provide valuable information in designing educational materials for FSWs in Taiwan in order to effectively prevent the occurrence of sexual related diseases.

Despite its important public health implications, this study has weaknesses and certain questions are not adequately addressed. First, the main limitation of the current study is its cross-sectional design that precludes the causal inference of the study results. Second, since accessibility to SWs was extremely difficult, although not impossible, obtaining a random sample and a satisfactory rate of response was almost impossible. As a result, the prevalence of CCU estimated in this study could be biased, and it is reasonable to speculate that those who were willing to participate in this particular survey tended to have better knowledge about the benefits of condom use and skill in using them. Third, individuals recruited in the sample appeared to be hesitant to answer some sensitive questions. As a result, information collected for certain factors potentially associated with CCU was incomplete and could not be included in the analysis. These potential predictors included salary, mean duration of service in the sex trade, number of clients per work shift, violence imposed by clients, and fear of being arrested. Inadequate information provided by the study participants may have limited inferences in this report. Fourth, our study participants were volunteers; they were registered practitioners from the eight sectors of possible sex-related industries in Hsinchu City, not SWs from street brothels, streetwalkers or those engaged in dealing sex through other private activities. Limited by time and financial resources, this study was unable to collect a larger sample to increase the statistical power of the analysis. A total of 86 establishments in the eight types of possible sex-related industries were

registered at the time this study was conducted, but only 46 were solicited for a visit. Some establishments were ordered to shut down and some simply went out of business. Although environmental-structural factors were found to be associated with CCU among FSWs [31], the person in charge and the staff in these establishments did not acknowledge that they were dealing sex due to personal or legal concerns about our study. Consequently, the actual number of sex workers in the study area cannot be accurately calculated, and this makes generalizability of the study findings more difficult.

In conclusion, this survey found that one third of FSWs in Hsinchu City did not consistently use condoms. This finding may be of interest to the public health authority and policy makers. This study also suggested a need for a public health program to educate FSWs in the skills of condom use, since that was found to be positively associated with CCU. This would further reduce the prevalence of sex-related infectious disease in this socially disadvantaged work group.

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REFERENCES

- Day S, Ward H. Sex workers and the control of sexually transmitted disease. *Genitourin Med* 1997;**73**:161-8.
- Ghys PD, Jenkins C, Pisani E. HIV surveillance among female sex workers. *AIDS* 2001;**15**(suppl 3):S33-40.
- Cwikel JG, Lazer T, Press F, Lazer S. Sexually transmissible infections among female sex workers: an international review with an emphasis on hard-to-access populations. *Sex Health* 2008;**5**:9-16.
- 林宜慧：2008年台灣愛滋新聞報導精要分析。疫情報導 2009；**25**：179-88。
- Chen YM, Yu PS, Lin CC, Jen I. Surveys of HIV-1, HTLV-I, and other sexually transmitted diseases in female sex workers in Taipei City, Taiwan, from 1993 to 1996. *J Acquir Immune Defic Syndr Hum Retrovirol* 1998;**18**:299-303.
- Hung CC, Chen MY, Hsiao CF, Hsieh SM, Sheng WH, Chang SC. Improved outcomes of HIV-1-infected adults with tuberculosis in the era of highly active antiretroviral therapy. *AIDS* 2003;**17**:2615-22.
- Chen MY, Hung CC, Fang CT, Hsieh SM. Reconstituted immunity against persistent parvovirus B19 infection in a patient with acquired immunodeficiency syndrome after highly active antiretroviral therapy. *Clin Infect Dis* 2001;**32**:1361-5.
- Chen SC, Wang ST, Chen KT, et al. Analysis of the influence of therapy and viral suppression on high-risk sexual behaviour and sexually transmitted infections among patients infected with human immunodeficiency virus in Taiwan. *Clin Microbiol Infect* 2006;**12**:660-5.
- Ford K, Wirawan DN, Fajans P. Factors related to condom use among four groups of female sex workers in Bali, Indonesia. *AIDS Educ Prev* 1998;**10**:34-45.
- Thuy NT, Nhung VT, Thuc NV, Lien TX, Khiem HB. HIV infection and risk factors among female sex workers in southern Vietnam. *AIDS* 1998;**12**:425-32.
- Oladosu M. Consistent condom use dynamics among sex workers in Central America: 1997-2000. *J Biosoc Sci* 2005;**37**:435-57.
- Hanenberg RS, Rojanapithayakorn W, Kunasol P, Sokal DC. Impact of Thailand's HIV-control programme as indicated by the decline of sexually transmitted diseases. *Lancet* 1994;**344**:243-5.
- Nelson KE, Celentano DD, Eiumtrakol S, et al. Changes in sexual behavior and a decline in HIV infection among young men in Thailand. *N Engl J Med* 1996;**335**:297-303.
- Rojanapithayakorn W, Hanenberg R. The 100% condom program in Thailand. *AIDS* 1996;**10**:1-7.
- Vanwesenbeeck I, de Graaf R, van Zessen G, Straver CJ, Visser JH. Professional HIV risk taking, levels of victimization, and well-being in female prostitutes in The Netherlands. *Arch Sex Behav* 1995;**24**:503-15.
- Albert AE, Warner DL, Hatcher RA, Trussell J, Bennett C. Condom use among female commercial sex workers in Nevada's legal brothels. *Am J Public Health* 1995;**85**:1514-20.

17. Sheeran P, Taylor S. Predicting intentions to use condoms: a meta-analysis and comparison of the theories of reasoned action and planned behaviour. *J Appl Soc Psychol* 1999;**29**:1624-75.
18. Wong ML, Chan RK, Chua WL, Wee S. Sexually transmitted diseases and condom use among female freelance and brothel-based sex workers in Singapore. *Sex Transm Dis* 1999;**26**:593-600.
19. Egger M, Pauw J, Lopatatzidis A, Medrano D, Paccaud F, Smith GD. Promotion of condom use in a high-risk setting in Nicaragua: a randomised controlled trial. *Lancet* 2000;**355**:2101-5.
20. Ma S, Dukers NH, van den Hoek A, et al. Decreasing STD incidence and increasing condom use among Chinese sex workers following a short term intervention: a prospective cohort study. *Sex Transm Infect* 2002;**78**:110-4.
21. Fox J, Tideman RL, Gilmour S, Marks C, van Beek I, Mindel A. Sex work practices and condom use in female sex workers in Sydney. *Int J STD AIDS* 2006;**17**:319-23.
22. Wong KH, Lee SS, Lo YC, Lo KK. Condom use among female commercial sex workers and male clients in Hong Kong. *Int J STD AIDS* 1994;**5**:287-9.
23. Rahman M, Wali-ul Islam M, Fukui T. Knowledge and practices about HIV/AIDS among the commercial sex workers in Bangladesh. *J Epidemiol* 1998;**8**:181-3.
24. Meekers D, Klein M. Understanding gender differences in condom use self-efficacy among youth in urban Cameroon. *AIDS Educ Prev* 2002;**14**:62-72.
25. Coughlan E, Mindel A, Estcourt CS. Male clients of female commercial sex workers: HIV, STDs and risk behaviour. *Int J STD AIDS* 2001;**12**:665-9.
26. Leigh BC. Alcohol and condom use: a meta-analysis of event-level studies. *Sex Transm Dis* 2002;**29**:476-82.
27. Todd CS, Alibayeva G, Khakimov MM, Sanchez JL, Bautista CT, Earhart KC. Prevalence and correlates of condom use and HIV testing among female sex workers in Tashkent, Uzbekistan: implications for HIV transmission. *AIDS Behav* 2007;**11**:435-42.
28. 姚克武、韓文蕙、徐玉珍、謝佳蓉、張珏：由公共衛生的觀點看妓權。 *女學學誌* 2010；**26**：34-59。
29. Chen YM, Chang LY, Jen I, Fu CY, Chou P. A survey of knowledge, attitudes, and practices concerning AIDS among female sex workers from massage parlors in Taiwan. *Taiwan J Public Health* 1997;**16**:37-51.
30. 何銘隆、吳唯雅、顏啟華、陳俊傑、李孟智：台中地區從事性工作青少年之性傳染病調查。 *台灣家庭醫學研究* 2004；**2**：31-7。
31. Kerrigan D, Ellen JM, Moreno L, et al. Environmental-structural factors significantly associated with consistent condom use among female sex workers in the Dominican Republic. *AIDS* 2003;**17**:415-23.

台灣新竹市女性性工作者持續使用保險套的盛行率和預測因子

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目標：本研究目的在於探討台灣新竹市女性性工作者持續使用保險套的盛行率和預測因子。**方法：**於2006年七月至十月間，利用橫斷式調查研究法，取得155名新竹市女性性工作者問卷資料，再以描述性統計、卡方檢定或費雪爾正確概率檢定和邏輯斯迴歸分析該等研究資料。**結果：**本研究參與者中有63%有持續使用保險套的行為；傾向持續使用保險套者分別是：少喝酒者、知道使用保險套好處者、對於保險套使用覺得不會減少做愛情趣者，或有正確保險套使用技巧者；進一步複邏輯斯迴歸分析顯示：「良好的保險套使用技巧」以及「不覺得使用保險套會降低樂趣」兩因素與「持續使用保險套」有顯著的正相關性。**結論：**本研究發現女性性工作者持續使用保險套行為的盛行率應該要進一步被提昇；而本研究的數據發現是否能外推至本國其他城市也需要進一步被驗證。作者也建議應針對此特定族群進行保險套使用技巧之教育介入。(台灣衛誌 2010；29(6)：528-537)

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