



ปัจจัยที่มีอิทธิพลต่อการใช้ถุงยางอนามัยสำหรับการป้องกันโรคเอดส์ของชายขายบริการในจังหวัดเชียงใหม่

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Abstract

Factors Influencing Condom Use for HIV/AIDS Prevention of Male Sex Workers in Chiang Mai Province

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The pattern of HIV infection has changed over time. There has been an increase in males who engage in sexual practice with male sex workers (MSWs). However, prevention programmes focused on MSWs who are at high risk of HIV/AIDS infection were limited.

Objective: This study aimed to identify the factors influencing condom use for preventing HIV/AIDS transmission amongst MSWs working in gay bars and gay massage parlours in Chiang Mai province.

Methods: A cross-sectional analytical study was used. The subjects were 200 MSWs working in gay bars and gay massage parlours in Chiang Mai province were selected using stratified sampling with equal probability from gay bar and massage parlours. Data was analyzed by descriptive analysis and logistic regression analysis.

Results: Factors influencing condom use for vaginal sex were older age of MSWs (adjusted OR=1.33, 95%CI=1.02-1.74, $p=.036$), better AIDS knowledge (adjusted OR=1.35, 95%CI =1.02-1.80, $p=.036$) and higher self-efficacy (adjusted OR=2.19, 95%CI =1.06-4.52, $p=.033$); for anal sex were living with boyfriend/girlfriend (adjusted OR=0.24, 95%CI=0.09-0.60, $p=.002$), and higher self-efficacy (adjusted OR=1.25, 95%CI=1.05-1.50, $p=.012$); and for oral sex were higher peer norm (adjusted OR=1.26, 95%CI=1.08-1.48, $p=.003$), higher self-efficacy (adjusted OR=1.35, 95%CI=1.14-1.60, $p<.000$) and higher intention to use condom for oral sex (adjusted OR=3.71, 95%CI=1.66-8.29, $p=.001$).

Conclusion: Several demographic and psychological factors were associated with condom use behaviour. A HIV/AIDS prevention program for MSWs should focus on increasing the AIDS knowledge, perceived self-efficacy, peer norm, and intention to use condom. In addition, sharing of condom use experience from the older MSWs should be performed. AIDS knowledge about transmission and prevention of HIV/AIDS are not only provided to MSWs, those knowledge should also recommend in boy/girl friend group of MSWs.

Key Words: HIV/AIDS Prevention, Psychological factors, Condom Use, Male Sex Workers (MSWs)
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บทคัดย่อ

รูปแบบของการติดเชื้อเอชไอวีมีการเปลี่ยนแปลงไป มีการติดเชื้อเพิ่มในกลุ่มของชายขายบริการที่มีกิจกรรมทางเพศกับชายด้วยกัน อย่างไรก็ตามโปรแกรมการป้องกันโรคเอดส์สำหรับกลุ่มชายขายบริการยังมีปริมาณจำกัด

วัตถุประสงค์ เพื่อศึกษาปัจจัยที่มีอิทธิพลต่อการใช้อุปยางอนามัยในการป้องกันการติดเชื้อเอชไอวี/เอดส์ สำหรับชายขายบริการในบาร์เกย์และสถานนวดเกย์ในจังหวัดเชียงใหม่

วิธีการศึกษา เป็นการศึกษาเชิงวิเคราะห์แบบภาคตัดขวาง กลุ่มตัวอย่างคือ ชายขายบริการที่ทำงานอยู่ในบาร์เกย์และสถานนวดเกย์ในจังหวัดเชียงใหม่ จำนวน 200 คน คัดเลือกโดยการสุ่มตัวอย่างแบบแบ่งชั้น ในสัดส่วนที่เท่ากันตามสถานที่ทำงานของชายขายบริการ วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและสถิติการถดถอยโลจิสติก

ผลการศึกษา ปัจจัยที่มีอิทธิพลต่อการใช้อุปยางอนามัยสำหรับการมีเพศสัมพันธ์ทางอวัยวะเพศหญิง คือ อายุที่มากกว่า (adjusted OR=1.33, 95%CI=1.02-1.74, p=.036), ความรู้เรื่องเอดส์ที่ต่ำกว่า (adjusted OR=1.35, 95%CI =1.02-1.80, p=.036) และการรับรู้ประสิทธิภาพแห่งตนที่สูงกว่า (adjusted OR=2.19, 95%CI =1.06-4.52, p=.033); สำหรับการมีเพศสัมพันธ์ทางทวารหนัก คือ การอาศัยอยู่กับเพื่อนชาย/หญิง (adjusted OR=0.24, 95%CI=0.09-0.60, p=.002), และการรับรู้ประสิทธิภาพแห่งตนที่สูงกว่า (adjusted OR=1.25, 95%CI=1.05-1.50, p=.012); สำหรับการมีเพศสัมพันธ์ทางปาก คือ บรรทัดฐานของบุคคลที่สูงกว่า (adjusted OR=1.26, 95%CI =1.08-1.48, p=.003), การรับรู้ประสิทธิภาพแห่งตนที่สูงกว่า (adjusted OR=1.35, 95%CI=1.14-1.60, p<.000) และความตั้งใจต่อการใช้อุปยางอนามัยที่สูงกว่า (adjusted OR=3.71, 95%CI=1.66-8.29, p=.001).

สรุปผล ปัจจัยทางด้านสังคมวิทยาและข้อมูลทั่วไปทั้งหลายมีความสัมพันธ์ต่อพฤติกรรมการใช้อุปยางอนามัย โปรแกรมการป้องกันเอชไอวี/เอดส์สำหรับชายขายบริการควรประกอบด้วยกิจกรรมที่เพิ่ม ความรู้เรื่องโรคเอดส์, การรับรู้ประสิทธิภาพแห่งตน, บรรทัดฐานของบุคคลและความตั้งใจในการใช้อุปยางอนามัย นอกจากนี้ ควรให้คนที่อายุน้อยกว่าได้มีการแลกเปลี่ยนประสบการณ์การใช้อุปยางอนามัย และความรู้เกี่ยวกับการติดเชื้อและการป้องกันเอดส์ไม่ควรส่งเสริมเฉพาะชายขายบริการเท่านั้น ควรแนะนำให้กับกลุ่มเพื่อนผู้ชายและผู้หญิงของชายขายบริการด้วย

คำสำคัญ การป้องกันเอชไอวี/เอดส์, ปัจจัยด้านสังคมวิทยา, การใช้อุปยางอนามัย, ชายขายบริการ.
วารสารโรคเอดส์ 2554/2555; 24 : 37-46

Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a worldwide pandemic due to its aggressive nature and current incurability. In 1984, the first case of HIV/AIDS was identified in Thailand. The number of people living with HIV/AIDS in Thailand was 29.5 per 100,000 populations and the number of AIDS-related deaths was 2,648 people in 2007. In 2009, the number of AIDS-related deaths had reached 1,099 people.⁽¹⁾

The pattern of sexual transmission of HIV in Thailand has changed from heterosexual to homosexual oriented groups. There has been an increase in cases amongst males who engage in sexual practice with other males and/or male sex-workers (MSWs). However, programmes focused on MSWs who are at high risk of HIV/AIDS infection were neglected.^(2,3)

Successful HIV/AIDS prevention activities was developed and conducted based on health behaviour, theories which predictors



affecting HIV/AIDS prevention behaviour were tested before the HIV/AIDS prevention program was implemented.⁽⁴⁾ This study aimed to identify factors that influence condom use preventing HIV/AIDS transmission amongst MSWs working in gay bars and gay massage parlours in Chiang Mai province. The finding can be used for developing strategies for HIV/AIDS risk management in MSWs.

Research Methodology

Research design was a cross-sectional analytical study.

Participants

Study participant were 200 MSWs aged over 20 years old working in gay bars and gay massage parlours in Chiang Mai province for at least two weeks. They were selected by stratified sampling from a pool of gay bars and gay massage parlours in Chiang Mai province. The sample sizes of this study are calculated base on the number needed for multiple logistic regression analysis with a sample size estimated that least 190 person, as follows.

$$N \geq (10 - n) + 50$$

When N was sample size needed and n was the total number of independent variables which was expected to be 14.

Instrumentation

Data collection tool for this study was a questionnaire which had two parts:

Part I: Demographic characteristics of MSWs, items were asked about age, nationality, living status, educational level, income, work experience, and history of sexually transmitted diseases (STDs).

Part II: Psychosocial factors, items were adopted and selected from the studies of Conner, Stein, & Longshore (2005); Brecht, Murphy, & Evans (2007); and Kaljee et al. (2005). They represented constructs from the AIDS risk reduction model (ARRM) which was a health behavior theories used explain behavior change.⁽⁵⁾ This part of the questionnaire composed of questions about five psychosocial factors, AIDS transmission and prevention knowledge, intention to use condoms, and condom use behaviour.

Twenty-one items of five psychosocial factors which including perceived infection risk, peer norms, cues to action, perceived self-efficacy, and respond self-efficacy were measured by 5-point Likert scales. AIDS knowledge and intention to use condoms were measured with “yes”, “no” or “not sure”. Both “no” and “not sure” hold a score of 0 and “yes” hold a score of 1. Regarding condom use variable the responses included “every time”, “sometimes” or “never used”. For the purposes of this analysis, only “every time” was considered as having condom use behaviour.

Validity and reliability

The content validity of the instruments was determined by three experts who work in the HIV/AIDS and academic area. After the instruments were revised, the questionnaires were pretested with 30 MSWs who work in gay bars and gay massage parlours, with similar characteristics to the target population. The Cronbach’s alpha coefficient was used to calculate the questionnaire’s internal consistency. The Cronbach’s alpha coefficient for each construct of 5-point likert scales was more than 0.70.

Data collection

For participants’ compliance on completing the questionnaire, the participants who worked in gay bars were asked to complete their questionnaires before their working hours (7.00 pm). For those MSW participants worked in gay massage parlours, they were asked to complete their questionnaires during working hours (9.00 am-2.00 pm). This study protocol was approved by the Institutional Review Board of the Faculty of Pharmacy, Chiang Mai University.

Data Analysis

Data were analysed by the Statistical Package for the Social Sciences (SPSS) for windows version 16.0. Descriptive statistics were used to analyse demographic data of participants. Bivariable analysis was subsequently performed to determine the unadjusted association between condom use and potential factors. Only factors significant associated with condom use in bivariate analyses

were entered into multivariable logistic regression model. Variables were included in a multivariable model if they presented a P value ≤ 0.05 in bivariate analysis and then removed from the multivariable model if they did not exhibit an adjusted P value ≤ 0.05 .

RESULTS

Demographic Characteristics

The mean age of study sample was 23.70 \pm 3.40 years old with range of 20 to 35 years old. The majority was Thai (65%), lived with boyfriend/girlfriend (58.5%), had primary or secondary school education (67%) and never had STDs (81.5%). The median period of work experience was nine months (IQR=10). Median incomes were 9,000 Thai baths* per month (IQR=4,000), as shown in Table 1.

Psychosocial factors

AIDS knowledge

The mean score was 7.36 \pm 2.36 (total score=10). For knowledge about HIV/AIDS transmission, 84% of subjects had correct knowledge that AIDS was not affected only gay men and people would not get AIDS when they kiss if they had mouth-would. However, 44.50% of the participants understood that people had only AIDS symptoms could transmit to another. For knowledge about HIV/AIDS prevention, more than 90% of the participants had correct knowledge that using condom correctly and every time could protected from HIV. However, 44.5% of the participants had misunderstood that the withdrawal technique would reduce a chance of getting AIDS (the detail shown in Table 2).

Table 1. Demographic of sample (n=200)

Demographic	n	%
Nationality		
Thai	130	65.0
Thaiyai	70	35.0
Living status		
Alone	83	41.5
With boyfriend	63	31.5
With girlfriend	54	27.0
Education level		
No education	18	9.0
Elementary education	59	29.5
Secondary education	75	37.5
Some college	29	14.5
Bachelor's degree	19	9.5
History of STDs		
Yes	37	18.5
No	163	81.5
Work experience in month (Median, IQR)	9, IQR=10	
Income in baht (Median, IQR)	9,000, IQR= 4,000	
Age in year (mean SD)	23.70 3.40	

* 1 US\$ = approx. 33 Thai baths



Table 2. Number and percentage of subjects on correct answers each item of AIDS knowledge (n=200)

	Correct answer	
	No	%
<u>Transmission</u>		
1. AIDS affects only gay men (F)	168	84.0
2. AIDS cannot transmission by sharing food (T)	142	71.0
3. People with only AIDS symptoms can transmit to another (F)	111	55.5
4. Anal sex is the only type of sex that can expose people to AIDS (F)	130	65.0
5. Having wound in mouth, have chances of getting AIDS when kiss (F)	168	84.0
6. Don't use condom when oral sex, have chances of getting AIDS (T)	142	71.0
<u>Prevention</u>		
7. The withdrawal will reduce getting AIDS (F)	111	55.5
8. Cleaning of sexual organ after sex will reduce getting AIDS (F)	130	65.0
9. Using condom correctly will give protection from HIV (T)	185	92.5
10. Using condom every time will give protection from HIV (T)	186	93.0
Total score (mean SD)	7.36	2.36

Perceived infection risk

Mean score of perceived infection risk was 18.05 \pm 2.89 (total score=25). Almost 90% of the participants strongly agreed and agreed that if they did not use condom every time they had a chance of getting AIDS. Seventy two percent of the participants strongly agreed and agreed that they had a chance of getting AIDS from their occupation. On the other hand, 38% of subjects uncertain that they are strong man so that they had not chances of getting AIDS (as shown in Table 3).

Peer norms

Mean score of peer norms was 15.53 \pm 2.74 (total score=20). More than 65% of subjects strongly agree and agree that their co-workers, bar owners, boyfriend/girlfriend, and clients thought participants should use condoms when they had sex. (shown in Table 3).

Cues to action

Mean score of cues to action was 22.98 \pm 3.90 (total score=30). More than 84% of respondents answered that they had used condoms after having a conversation with health

care worker, co-workers, and volunteers of the Mplus (an NGO working in HIV/AIDS prevention program). Moreover, approximately 60% of them answered that they had use condoms after receiving AIDS information from radio, TV or magazine. On the other hand, almost 30% of subjects were uncertain that they would use condoms after receiving AIDS information from radio, TV or magazine. (as shown in Table 3).

Self-efficacy and respond self-efficacy

Mean score of self-efficacy was 20.67 \pm 2.60 (total score=25). Almost 100% of respondents answered that using a condom was easy for them. Eighty five percent of them strongly agreed and agreed that they knew how to correctly use a condom when they had sex with someone. Approximately 75% of them strongly agreed or agreed that they were able to discuss the using correctly a condom (as shown in Table 3).

Regarding the respond self-efficacy, mean score was 4.40 \pm .62 (total score=5). More than 90% of respondents strongly agreed or agreed that using condoms prevented the chance of getting AIDS (as shown in Table 3).

Table 3. Percentage and mean score of subjects on each item of psychosocial factors (n=200)

Items	Strongly Agree (%)	Agree (%)	Uncertain (%)	Disagree (%)	Strongly disagree (%)	Mean	SD
Perceived infection risk							
1. You may have had sex with someone who was infected with HIV/AIDS	32(16.0)	70(35.0)	69(34.5)	23(11.5)	6(3.0)	3.50	1.00
2. If you don't use a condom every time you have sex, you have a chance of getting AIDS	75(37.5)	104(52.0)	19(9.5)	2(1.0)	-	4.26	.67
3. You are strong man so that you have not a chance of getting AIDS(R)	18(9.0)	38(19.0)	76(38.0)	57(28.5)	11(5.5)	2.97	1.03
4. You have a chance of getting AIDS from your occupation	37(18.5)	107(53.5)	41(20.5)	13(6.5)	2(1.0)	3.82	.84
5. If you have sex with more people you have a chance of getting AIDS	32(16.0)	70(35.0)	69(34.5)	23(11.5)	6(3.0)	3.50	1.00
Total score (mean SD)						18.05	2.89
Peer norm							
1. Your co-workers think you should use condoms when you have sex.	51(25.5)	78(39.0)	69(34.5)	2(1.0)	-	3.89	.80
2. Your owner thinks you should use condoms when you have sex.	53(26.5)	84(42.0)	61(30.5)	2(1.0)	-	3.94	.78
3. Your boy/girl friend thinks you should use condoms when you have sex.	44(22.0)	80(40.0)	67(33.5)	9(4.5)	-	3.79	.83
4. Your client thinks you should use condoms when you have sex.	52(26.0)	78(39.0)	68(34.0)	2(1.0)	-	3.90	.80
Total score (mean SD)						15.53	2.74
Cue to action							
1. You use condoms after having a conversation with a health care provider.	48 (24.0)	121(60.5)	22(11.0)	7(3.5)	2(1.0)	4.03	.76
2. You use condoms after having a conversation with your co-workers.	36(18.0)	132(66.0)	22(11.0)	9(4.5)	1(0.5)	3.97	.72
3. You use condoms after having a conversation with volunteers who work for Mplus	42(21.0)	133(66.5)	19(9.5)	5(2.5)	1(0.5)	4.05	.67
4. You use condoms after receiving AIDS information from advertising	23(11.5)	106(53.0)	53(26.5)	14(7.0)	4(2.0)	3.65	.85
5. You use condoms after receiving AIDS information from radio and TV	23(11.5)	106(53.0)	55(27.5)	11(5.5)	5(2.5)	3.66	.85
6. You use condoms after receiving AIDS information from magazine	23(11.5)	103(51.5)	56(28.0)	14(7.0)	4(2.0)	3.63	.85
Total score (mean SD)						22.98	3.90
Self-efficacy							
1. Using a condom is easy for you.	75(37.5)	122(61.0)	2(1.0)	1(0.5)	-	4.36	.53
2. You will refuse to have sex if a male partner will not use a condom.	88(44.0)	79(39.5)	21(10.5)	3(1.5)	9(4.5)	4.17	1.00
3. You know how to use a condom correctly when you have sex with someone.	64(32.0)	106(53.0)	30(15.0)	-	-	4.17	.67
4. You are able to discuss the use of a condom correctly	45(22.5)	105(52.5)	50(25.0)	-	-	3.98	.69
5. You are able to discuss the benefit of using a condom	48(24.0)	104(52.0)	47(23.5)	1(0.5)	-	4.00	.71
Total score (mean SD)						20.67	2.60
Respond self-efficacy							
1. Using condoms prevents the chance of getting AIDS.	95(47.5)	91(45.5)	14(7.5)	-	-	4.40	.62



Table 4. The factors influencing condom use by multivariable logistic regression analysis.

Variables	Vaginal sex			Anal sex			Oral sex		
	Unadjusted OR(95%CI)	Adjusted OR(95%CI) ¹	Unadjusted OR(95%CI)	Adjusted OR(95%CI) ²	Unadjusted OR(95%CI)	Adjusted OR(95%CI) ³			
Self-efficacy	1.46(1.12-1.90)*	2.19(1.06-4.52)*	1.41(1.19-1.66)*	1.25(1.05-1.50)*	1.39(1.21-1.60)*	1.35(1.14-1.60)*			
Age	1.31(1.05-1.63)*	1.33(1.02-1.74)*	0.92(0.81-1.03)	-	0.88(0.80-0.98)*	0.89(0.79-1.02)			
Race	1.17(0.37-3.73)	-	1.85(0.78-4.34)	-	1.73(0.89-3.36)	-			
Living boy/girlfriend	1.22(0.40-3.78)	-	0.29(0.13-0.63)*	0.24(0.09-0.60)*	0.55(0.30-1.02)	-			
Education	1.95(0.63-6.03)	-	1.83(0.80-4.18)	-	1.90(0.99-3.65)	-			
Experience of work	1.29(1.08-1.54)*	1.25(0.97-1.61)	0.96(0.91-1.01)	-	0.96(0.92-0.99)*	0.38(0.10-1.04)			
Income	1.00(1.00-1.00)	-	1.00(1.00-1.00)	-	1.00(1.00-1.00)	-			
History of STDs	1.40(0.00-1.00)	-	0.24(0.06-1.07)	-	0.40(0.15-0.99)*	1.15(1.00-1.32)			
AIDS knowledge	1.47(1.17-1.84)*	1.35(1.02-1.80)*	0.98(0.84-1.15)	-	0.96(0.84-1.09)	-			
Perceived infection risk	1.01(0.83-1.22)	-	1.21(1.05-1.39)*	1.06(0.09-1.24)	1.21(1.08-1.36)*	1.02(0.91-1.14)			
Peer norm	1.13(0.91-1.40)	-	1.29(1.11-1.50)*	1.06(0.09-1.24)	1.35(1.19-1.53)*	1.26(1.08-1.48)*			
Cue to action	0.99(0.85-1.15)	-	1.21(1.07-1.38)*	1.14(0.97-1.35)	1.17(1.06-1.30)*	1.02(0.91-1.14)			
Respond self-efficacy	1.30(0.54-3.15)	-	1.79(0.92-3.48)*	1.14(0.99-1.29)	1.55(0.93-2.59)	-			
Intention to use for vaginal sex	0.59(0.18-2.00)	-	-	-	-	-			
Intention to use for anal sex	-	-	1.40(0.00-1.00)	-	-	-			
Intention to use for oral sex	-	-	-	-	5.21(2.71-10.03)*	3.71(1.66-8.29)*			

*p<0.05, ¹ Adjusted for vaginal sex, R²= .426, ² Adjusted for anal sex, R²= .332, ³ Adjusted for oral sex, R²= .465

Intention to use condom and condom use behaviour

When asked about the participants' intention to use condom, 96.5% of participants would use condom during anal sex in the future. However, 58% of them would use condom during vaginal sex and 41% would use during oral sex. Thirteen point five of them would not use condom during vaginal sex and oral sex in the future. About 45.5% of them answered that they did not sure that they would use condom during oral sex in the future.

Regarding condom use, 93.5% of them reported that they used condoms every time when they had vaginal sex. Sixteen point five percent of them reported that use condom every time when they had anal sex and 30% of them had condom use every time for oral sex. Six point five percent of them reported that they used condoms some time when they had vaginal sex. Forty four percent of them reported that use condom some time when they had anal or oral sex. However, 39.5% of them answered that never use condoms when they had anal sex. Only 26% of them reported that never use condom for oral sex.

Factors influencing condom use behavior

Multivariate logistic analysis was used to identify independent effects of each factor on condom use behavior. Only factors significant associated with condom use in bivariate analyses were entered into multivariable logistic regression model. Only three variables were found to be significant to condom use for vaginal sex, including older age (adjusted OR=1.33, 95% CI=1.02-1.74, $p=.036$), better AIDS knowledge (adjusted OR=1.35, 95% CI=1.02-1.80, $p=.036$) and higher self-efficacy (adjusted OR=2.19, 95% CI=1.06-4.52, $p=.033$), while experience of work showed no significance. Only two variables were found to be significant to condom use for anal sex, including living with boy/girlfriend (adjusted OR=0.24, 95% CI=0.09-0.60, $p=.002$), and higher self-efficacy (adjusted OR=1.25, 95% CI=1.05-1.50, $p=.012$), while perceive infection risk, peer norm, and cues to action showed no significance. Only three variables were found to be significant predictors to condom use for oral sex including higher peer norm (adjusted OR=1.26, 95% CI=1.08-1.48,

$p=.003$), higher self-efficacy (adjusted OR=1.35, 95% CI=1.14-1.60, $p<.000$) and higher intention to use condom for oral sex (adjusted OR=3.71, 95% CI=1.66-8.29, $p=.001$). These finding were presented in Table 4.

DISCUSSION

This study, we determined the factors associated with condom use behavior. The relevant factors identified in this study provided insight into the motivational factors affecting condom use behavior of MSWs. These factors may be useful in planning future HIV/AIDS prevention program.

The results revealed that 93.5% of participants reported that they used condoms every time when they had vaginal sex. Sixteen point five percent of participants reported that use condom every time when they had anal and 30% of participants had condom use every time for oral sex. This could be explained that most subjects had use condom for vaginal sex every time more than anal and oral sex. The reason may be that using condoms on vaginal sex could prevent not only HIV infection but also pregnancy. This could be noticed from other studies that the reason why teenagers used condoms while having sex with their girlfriends was to prevent HIV infection and pregnancy.⁽⁶⁾ While those subjects who always use condoms on oral and anal sex were in small amount, this may be assumed that the subjects believe that oral sex could not cause AIDS infection which was also consistent to this study. Twenty-nine percent of the subjects misbelieve that condom was not needed for oral sex since it would not lead to AIDS. For condom use on anal sex, since most of the subjects lives with their boyfriends, having sex without condom use might possibly cause by mutual trust.

In this study, we found factors influencing condom use for vaginal, anal, and oral sex were high self-efficacy. Finding in this study found that almost 100% of respondents answered that using a condom was easy for them. This could be explained that it was because people with high self-efficacy tend to have high confidence in their capability to succeed with their course of action to perform health preventive behaviors. On the contrary, people with low perceived self-efficacy would demonstrate poor



health preventive behaviors. This result suggests that the HIV/AIDS prevention programs to MSWs in future should be stressed using method of condoms for any kinds of sexual intercourse, rather than simply providing general information on condoms and AIDS. This measure agreed with other study which reported that the factors influencing condom use were perceptions of self-efficacy.^(4,7)

In the multivariate analysis older age were factors influencing condom use for vaginal sex. This can be attributed to the fact that older age is one of the most important factors for health behavioral because age can refer to mental status, perception, and the ability to understand or make the decision to practice health behaviors to maintain or enhance their health. This finding confirms the result that age is a factor influencing health preventive behavior in blood donors.⁽⁸⁾ The better AIDS knowledge is also an important factor influencing condom use. It could be explained that the individuals who have a higher level of knowledge and better pursuance of health information normally achieved better health preventive behaviors practices than do those with poor knowledge and pursuance. Higher knowledge results in good decision making and correct behavior.⁽⁹⁾ This finding consistent with other studies which found that increasing the understanding of diseases by especially about sexual routes transmission and prevention of HIV/AIDS may positive influence preventive behaviour.⁽⁴⁾

Factors influencing condom use for anal sex were living with boy/girlfriend. The result found that 59.5% of subjects living with boy/girlfriend. This could be explained that living as a couple may result an increasing number of condom use because of more talks and opinion sharing between each other in order to prevent an infection from oneself after starting working in this career. This may also be possible that a partner living together is the boyfriend with whom the other partner performs mostly anal sex, which leads to conversation on condom use for anal sex more than any other sexual preference. The result of this study is consistent with other study which found that there was correlated between marital status and health promoting behaviors in clients with HIV infection.⁽⁷⁾

Moreover, this study has shown that only 16.5% of participants use condoms on anal sex. Thus, implementing oral communication of boy/girlfriends to increase condom use behavior for anal sex must be executed.

Regarding factors influencing condom use for oral sex were higher peer norm and higher intention to use condom for oral sex. This could be explained that peer norm was one factor which influencing condom use of subjects. This study found that more than 60% of subjects strongly agree and agree that their co-workers, owner, boy/girl friend, and client think they should use condoms every time when they had sex. Thus, this group of people has a very important part to encourage the subjects to always use condoms, especially boy/girl friend, colleagues and the gay bars and gay massage parlours' owners who are very close to the subjects and have the same work experience and opinions which could be shared together. In addition, the study also found that personal media could influence or motivate the subjects' individual behavior on condom use more than mass media. This finding consistent with several studies reported that subjective norms and perceived peer group norms showed significant association with actual sexual behaviour.^(10,11)

For high intention to use condom for oral sex can be described the individual people which high intention for actions involved with probability of behavior that higher affected. Consistent with the theory of health belief model state that high intention affect to behavior with intention.⁽¹²⁾

CONCLUSION

The present results have implication for HIV/AIDS risk reduction intervention for MSWs. Older age, AIDS knowledge, perceived self-efficacy, peer norm, and intention to use condom for oral sex were significant predictors of condom use behavior. Thus, HIV/AIDS prevention program should be designed to increase these constructs. The program should include activities to increase knowledge about transmission and prevention of HIV/AIDS, increasing self-efficacy and execute group activities of peer norm.

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