CHAPTER V

CONCLUSIONS AND DISCUSSIONS

The conclusions and discussions of the results were divided into four topics corresponding with the objectives of the study.

1. Condom use behavior of MSWs
    - 1.1 Condom use for vaginal sex
    - 1.2 Condom use for anal sex
    - 1.3 Condom use for oral sex
2. Descriptive data of psychosocial factors of MSWs
3. Factors influencing condom use behavior
    - 3.1 Condom use for vaginal sex
    - 3.2 Condom use for anal sex
    - 3.3 Condom use for oral sex
4. Effectiveness of HIV/AIDS prevention program for MSWs

The details of conclusions and discussions were described, as shown following.

1. Condom use behavior of MSWs

1.1 Condom use for vaginal sex

The theory of health belief model state that intention to use condom reflects to behavior with intention (Janz & Becker, 1984). However, the study results showed that 93.5% of participants reported that they used condoms every time when they had vaginal sex in the past month and 58% of subjects had intention to use condom in the future. This finding could be explained that the subjects had condom use behavior for vaginal sex in high level and had intention to use condom during vaginal sex in the future was middle level. The reason might be because that most of the clients were male and normally the participants did not have sexual affair with women which caused intention of condom use for vaginal sex to be in average level. Another

reason which caused the participants used condoms every time when they had vaginal sex was using condoms on vaginal sex could prevent not only HIV infection but also pregnancy. This could be noticed from another study that the reason why teenagers used condoms while having sex with their girlfriends was to prevent HIV infection and pregnancy (Mahantano, 2007).

1.2 Condom use for anal sex

Sixteen point five percent of participants reported that use condom every time when they had anal sex in the past month but most of them (96.5%) had intention to use condom during anal sex in the future. This finding could be explained that the subjects had condom use behavior for anal sex in low level and had intention in the future was high level. In the ARRM, intention is most likely to predict behavior when the expression of an intention is followed closely by an opportunity to engage in the behavior which means high intention to use condom effects to behavior (Ajzen, 1987; Bagozzi, 1981; Terry, 1993). This contrasts with the results of this study which might be because the supply of condoms was not enough and condom use rejection by clients. Since most of subjects lives with their boyfriends, having sex without condom use might possibly cause by mutual trust.

1.3 Condom use for oral sex

For intention to use condom and condom use behavior for oral were in small amount (41% and 30%, respectively), this might be assumed that the subjects believed that oral sex could not cause AIDS infection which was also consistent with the result in this study which reported that 29% of the subjects misbelieved that condom was not needed for oral sex since it would not lead to AIDS.

2. Descriptive data of psychosocial factors of MSWs

The results found that the mean score of AIDS knowledge was 7.36±2.36 (max=10, min=0). Ninety-three percent of the participants had correct knowledge about using condom every time when they had sexual relations with partners could give protection from HIV. Ninety-two percent of them had correct knowledge about correctly use of condom can give protection from HIV. The

results showed that most of subjects had high level of knowledge about HIV/AIDS prevention. It might be that MSWs are at high risk of HIV/AIDS infection. Therefore, the responsible Thai government and non-government agencies such as Mplus, had encouraged and extended knowledge about AIDS for MSWs continuously. This was consistent with the study by Takahashi, Akabayashi, Kai, Cabigon, Ohi, & Naka (1998) which found that 83.6% of subjects knew that using a condom could protection from HIV infection. However, in this study there were still 44% of the participants had incorrect knowledge about the withdrawal will reduce getting AIDS and people with only AIDS symptoms can transmit to another. These could be seen that, they accurately perceived prevention of HIV/AIDS, but lack of understood about HIV/AIDS transmission. Hence, HIV/AIDS prevention program should emphasize AIDS knowledge especially, HIV/AIDS transmission.

Regarding perceived infection risk, the results showed that mean score of perceived infection risk was 18.05 ± 2.89 (total score = 25). This score showed that subjects' perceived infection risk were high level. 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. About 72% of the participants strongly agreed and agreed that they had a chance of getting AIDS from their occupation. It could be explained that most of subjects knew that their occupation had a chance of getting AIDS if they did not use condom. In addition, if they perceived infection risk to HIV/AIDS, they might have developed good behaviors to prevent and avoid risk behaviors of HIV/AIDS (Pender, 1987). Becker & Janz (1984) also postulated that perceived infection risk was important in understanding preventive behaviors. This was consistent with the study by Takahashi, Akabayashi, Kai, Cabigon, Ohi, & Naka (1998) which indicated that high perceived infection risk refers to behavior change.

With regard to peer norm, the results showed that the mean score of peer norms was 15.53 ± 2.74 (total score = 20). This score showed that subjects' peer norm were high level. The results found that more than 60% of subjects strongly agree or agree that their co-workers, bar owners, boy/girlfriend, and clients thought they should use condoms when they had sex. It might be that these individuals who were much closed to the subjects and had the same work experience and opinions which could be shared together. As well as cues to action which were reported that

most of participants strongly agreed and agreed that they had used condoms after having a conversation with health care provider and volunteers of the Mplus (an NGO working in HIV/AIDS prevention program). The finding indicated that the individuals, especially health care provider and volunteers of the Mplus had played important roles in encouraging the sample to use condoms which might be because these people had gained trust and reliability from the sample as the specialists and experts in AIDS. Having conversations, communications, asking questions and sharing opinions had created understanding and then easily followed with acceptance. Patlak (2003) reported that communication method by talking and information exchanges were a two-way communication that allows learners to give information and ask question, making the learners to fully understand. However, almost 30% of subjects were uncertain that they would use condoms after receiving AIDS information from advertising, radio, TV or magazine. It might be because receiving AIDS information from advertising, radio, TV or magazine were one-way communication which when they did not understood, they were unable to raise any questions. The sample was uncertain whether to use condoms or not when received information through those channels. Therefore, HIV/AIDS prevention program should focus on encouraging the individual to perform the activity. This finding was similar to the study by Rannie & Craig (1997) who studies adolescent female' attitudes, subjective norms, perceived behavioral control and intention to use latex condoms. The results found that most of participant strongly agree or agree that their sexual partner thought they should use condom every time when they had sexual.

Self-efficacy and respond self-efficacy, almost 100% of respondents answered that using a condom was easy for them. Eighty-three point five percent of subjects strongly agreed and agreed that they would refused to have sex if a male partner wound not uses a condom, and 85% 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. The finding indicated that most of subjects had high self-efficacy. Bandura (1997) reported that self-efficacy refer to belief in one's ability to successfully perform a particular behavior. Thus, this belief influences how people feel, think, motivate themselves and behave. Bandura (1986) had stated that efficacy

beliefs affect each of these phases of personal change, when people consider changing their health habit. The results in this study found that most of subjects had high self-efficacy. This might be the reason which refers to behavior change of subjects. Changes in behavior would occur. This finding was similar to the study of Heeren, Jemmott , Mandeya, & Tyler (2007) who studied theory-based predictors of condom use among University students in the United States and South Africa. The results found that most of subjects strongly agreed and agreed that they knew how to correctly use a condom when they had sex.

For respond self-efficacy, the mean score of respond self-efficacy was 4.40 ± .62 (total score = 5). This score showed that respond self-efficacy were high level. Ninety three percent of respondents strongly agreed or agreed that using condoms prevented the chance of getting AIDS. This could be explained that most subjects knew that condom use was one of the most important preventative measures in risk behavior regarding HIV/AIDS. It was the most effective way to prevent HIV infection. This was consistent with the study by Takahashi, Akabayashi, Kai, Cabigon, Ohi, & Naka (1998) which found that 83.6% of subjects strongly agreed or agreed that using a condom could protection from HIV infection.

3. Factors influencing condom use behavior

The results found that factors influencing condom use for vaginal sex were increasing age, better AIDS knowledge and higher self-efficacy; for anal sex were living with boyfriend/girlfriend and higher self-efficacy; and for oral sex were higher peer norm, higher self-efficacy and higher intention to use condom for oral sex.

In this study, the results showed that the factors influencing condom use for all type of sex were self-efficacy. This result implied that self-efficacy was one of the variables that directly affect behavioral outcomes and maintained behavior. Self-efficacy could quite precisely predict health prevention behaviors (Pender, 1996). Pender (1996) reported that self-efficacy beliefs affect behavioural setting, effects to perform behaviour and overcome obstacles, the length of time to continue behaviour, and one's emotional reaction to performing behaviour. According to Bandura (1977) beliefs of personal efficacy constitute the key factor of human agency, which he defines as acts done intentionally. Once the personal efficacy was formed, this belief

would regulate aspiration, choice of behavioral courses, mobilization and maintenance of effort and affective reaction. Ajzen (1991) had argued, self-efficacy not only reflects perceived constraints on behavior but also has motivational properties. People who believe they were constrained from engaging in a behavior were unlikely to form strong intentions to engage in it even if they were otherwise disposed to do so. In this study, almost 100% of subjects answered that using a condom was easy for them. More than 70% of them strongly agree or agree that they knew how to use correctly a condom when they had sex with someone and approximately 75% of them strongly agree or agree that they were able to discuss the using correctly a condom. The subjects in this study were found to have self-efficacy at a high level (20.67±2.60). 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. However, the person who had high self-efficacy, the person needs to have good knowledge in that topic which means knowledge result self-efficacy change (Bandura, 1997). The result of this study found that most of subjects had high level of AIDS knowledge. This might be the reason which refers to self-efficacy of subjects. Several studies have shown the relationship between self-efficacy and health prevention behaviors as follows: Longshore, Stein & Chin (2006) showed that higher self-efficacy could predict stronger commitment to safer sex among women who were heterosexually active HIV negative men. In addition, this was similar to the study of Heeren, Jemmott , Mandeya & Tyler (2007) which found that self-efficacy could predict condom use among university students in the United States and South Africa. Finally,

3.1 Factors influencing condom use for vaginal sex

Beside self-efficacy, there were two factors which could predict condom use behavior for vaginal sex of MSWs; increasing age and better AIDS knowledge. In the multivariate logistic analysis, these three factors had the predictive power of 42.6% at statistically significant level of 0.05.

It could be explained that increasing age is one of the most important factors for health behavior 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. Orem's theory (1985) reported that age indicates maturity of an individual and when people are mature they develop decision-making skills for the selection of appropriate techniques and behaviors. Therefore, older age would cause a difference in perception of problems, understanding, contemplation, and decision-making in choosing how to behave. People with older aged tend to make decisions to search better, and had the ability to adjust and organize various situations in life well (Orem, 1985). Many studies in the literature had supported, including the study of Adu, Grimes, Ross, Risser, & Kessie (2007) which found that age associated with consistent condom use among female commercial sex workers in Ghana. Cheepborisut (1994) studied the knowledge of AIDS, health beliefs and health behaviors in preventive of AIDS in blood donors. She also found that there was correlated between age and AIDS prevention behavior. In addition, Thato, Charron-Prochownik, Dorn, Albrecht & Stone (2003) studied predictors of condom use among adolescent Thai vocational students which found that age could predict condom use.

The better AIDS knowledge was also an important factor influencing condom use for vaginal sex. It could be explained that the individuals who have a higher level of knowledge normally achieved better health preventive behaviors practices than do those with poor knowledge. The reason was higher knowledge results in good decision making and correct behavior (Pender, 1987; Becker & Janz 1984). Knowledge was a critical factor that will create understanding which will induce a response through change in behavior, and will enable one to perform certain behaviors, resulting from the appropriate knowledge they posses. Hence the increase in knowledge promotes appropriate behavior (Becker & Janz 1984). These finding were consistent with several previous studies. Kaljee et al. (2005) found that increasing the understanding of diseases by especially about sexual routes transmission and prevention of HIV/AIDS may positive influence preventive behaviour. This was also similar to the study of Takahashi, Akabayashi, Kai, Cabigon, Ohi, & Naka (1998) which found that AIDS knowledge associated with consistent condom use among female Commercial Sex Workers (CSWs) in Tarlac, the

Philippines. Thato, Charron-Prochownik, Dorn, Albrecht & Stone (2003) studied predictors of condom use among adolescent Thai vocational students. The result found that AIDS knowledge could predict condom use. These findings were supported by Longshore, Stein & Chin (2006) showed that there was significant correlation between AIDS knowledge and safer sex commitment among men who were heterosexually active HIV negative women.

These findings suggested that HIV/AIDS prevention program should emphasize AIDS knowledge especially, HIV transmission and prevention of AIDs.

3.2 Factors influencing condom use for anal sex

In addition the self-efficacy, the factors influencing condom use for anal sex in this study was living with boy/girlfriend. This finding indicated that HIV/AIDS preventive behaviors depended upon living status. The result found that 59.5% of subjects living with boy/girlfriend. It could be explained that living as a couple might 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 might also be possible that a partner living together was 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. Dechbooriboon (2001) indicated that a couple was essential in decision making for the performance of health behaviour. Findings of this study were also consistent with the result of Kaewsawang (1997) and Patlak (2003) which found that there were correlated between marital status and health promoting behaviors in clients with HIV infection.

3.3 Factors influencing condom use for oral sex

The result of this study showed that the factors influencing condom use for oral sex were high self-efficacy, higher peer norm, and higher intention to use condom for oral sex.

Higher peer norm was one factor which influencing condom use for oral sex of subjects. This finding indicated that HIV/AIDS preventive behaviors depended upon peer norm. The result found that 65% of subjects strongly agree or agree that

their co-workers, bar owners, boy/girlfriend, and clients thought they should use condoms when they had sex. It could be explained that most of them used condom when they received advice and information about HIV/AIDS from peer norm, especially, boy/girl friend, colleagues and the gay bars and gay massage palours' owners who were much closed to the subjects and had the same work experience and opinions which could be shared together. Fishbein & Middlestadt (1989) indicated that subjective norms are the most important determinant of behavioral intentions depends on the particular behavior and particular population studied. Therefore, peer norm potentially affecting the behavior change should be a person in the same occupational group of participants and receive participants respect as well as acceptance. This study was consistent with other studies which found that peer norm showed significant association with condom use (Selvan et al., 2001; Strader & Beaman, 2007; Phoka, 1998; Ross & Mclaws, 1992; Dechbooriboon, 2001). Those studies indicated that peer norm were essential in decision making for the performance of health behaviour. However, there were some previous studies which found that there was not a relationship between peer norm and condom use of students attending urban high schools (Shafer & Boyer 1991).

High intention to use condom for oral sex was one of the most important factors for health behavior. This could be described that the people which high intention for actions could lead to behavior to be highly occurred. Consistent with the theory of health belief model stated that high intention affect to behavior with intention (Janz & Becker, 1984). However, the person would had high intention, the person needs to include; good knowledge, high perceived infection risk, high peer norm, positive attitude and high self-efficacy which means knowledge, perceived infection risk, peer norm, attitude and self-efficacy result intention to use change (Bandura, 1997; Longshore, Stein & Chin, 2006). The results in this study found that the subjects had high AIDS knowledge, high perceived infection risk, high peer norm, and high self–efficacy. This might be the reason which result high intention and condom use behavior change.

4. Effectiveness of HIV/AIDS prevention program for MSWs

This study was to develop and evaluate the effectiveness of the HIV/AIDS prevention program among MSWs. The research design was a quasi- experimental design with one group's pre-test/post-test. Post-test was implemented at immediately, one-month and three-month after receiving an HIV/AIDS prevention program.

The HIV/AIDS prevention program was a series of activities designed for enhancing participants' AIDS knowledge, perceived infection risk, peer norm, attitude toward condom use, self–efficacy, and intention to use condoms. These factors had been identified previously as factors affecting condom use behavior among MSWs based on of AIDS Risk Reduction Model (ARRM). After the HIV/AIDS prevention program were conducted, the results showed that there was increased significantly the means scores of AIDS knowledge, perceived infection risk, peer norm, attitude toward condom use, and self–efficacy (p-value <0.05).

Regarding AIDS knowledge and perceived infection risk, the results showed that the mean scores of the total dimension of AIDS knowledge and perceived infection risk after receiving the HIV/AIDS prevention program were significantly higher than those before receiving the HIV/AIDS prevention program. Activities developing AIDS knowledge and perceived infection risk in this study were implemented through lecturing on AIDS, along with flip charts and manual, as well as, VCD to illustrate the symptoms and status of AIDS patients. The lecture description was emphasized on HIV/AIDS transmission and prevention. The lecturers were the AIDS experts. During activities, there were questions acquiring, opinion sharing with each other. Thomas (1963) reported that using flip charts with descriptions in order to have the subjects perceive the pictures through their eyes, in additional to listening through their ears and speaking through the mouths as the impulse stimulators through senses attaining attention as well as encouraging more knowledge and understanding on AIDS. These results concured with the study of Yotruean (2006); Donald, Alfonso, Astou &Teodora (2004) which indicated that knowledge change needs clear knowledge and understanding transmission method that the perceiver could be able to receive the message. However, knowledge alone was not sufficient to produce a behavior change. The positive changes in behaviors

would only occur when perceptions, motivations, skills, and the social environment were harmoniously combined (Fishbein & Azjen, 1980). In this study, the researcher had implemented activities to develop and encourage AIDS knowledge, including improving communicative skills with the sample's partners. The results of this study found that the mean scores of perceived infection risk, peer norm, attitude toward condom use, and self-efficacy were increased significantly after participants received the intervention. This might be the reason which increased knowledge of the subjects.

In this study, the subjects realized how much their occupational risk in AIDS could possibly be through water exchange activity. The water exchange activity was a game which the researcher had used to stimulate perceived infection risk of the subjects to acknowledge that having an affair with many people without any protection could risk AIDS affection. Moreover, to increase perceived infection risk of the subjects, the group was required fair knowledge in each topic of HIV/AIDS (Yotruean, 2006; Bandura, 1997) which means knowledge result perceived infection risk change. The results of this study found that the mean scores of AIDS knowledge were increased significantly after participants received the intervention. This might be the reason which increased perceived infection risk of the subjects. Previous studies havd found similar results; Kelly & Amirkhanian (2003) study the effective of a social network HIV prevention intervention program for young men who have sex with men in Russia and Bulgaria which found that AIDS knowledge and perceived infection risk increased significantly from before intervention to follow up. Kaljee et al. (2005) study effectiveness of a theory–based risk reduction of HIV prevention program for rural Vietnamese adolescents which found that knowledge of severity and vulnerability of HIV/AIDS significantly increased from before intervention to follow up. Shamagonam, Priscilla, Robert, Myra, Champaklal & Pepijn, et al (2005) study the effects of print media AIDS education intervention on knowledge, attitudes, communication and behavioral intentions with respect to sexually transmitted infections among secondary school learners in South Africa. The results found that knowledge about spread and causes of sexually transmitted infections significantly increased at follow up. They indicated that increasing of perceived infection risk was the result from the sample has gained knowledge on AIDS infection and prevention

very well. To increase perceived infection risk, they must be clearly educated about spread and causes of sexually transmitted infections.

The results of this study showed that the subjects' mean scores on the total of attitude toward condom use after receiving the HIV/AIDS prevention program were significantly higher than those before receiving the HIV/AIDS prevention program. In order to enhance the attitude toward condom use in this study, focus group discussion about their experiences on advantages and disadvantages of the condom, including demonstration and trial had been conducted. This procedure encouraged the subjects to understand and recognize the value, and possess positive attitude as well (Yotruean, 2006). Previous study (Kelly& Amirkhanian, 2003) reported that the activities on ideas and experiences sharing could improve attitude toward condom use for young men who had sex with men in Russia and Bulgaria. However, to acquire the positive attitude of a person behavior, the only activity could not uplift the person's attitude. The attitude toward a particular thing would, moreover, depend on the person's knowledge (Bandura, 1986) which means if the person possesses knowledge about something, the attitude would turn into the positive way, which would lead to positive implementation. Bandura (1997); Schwat (1975) had stated the relationship of knowledge and attitude that knowledge possesses the most important characteristic which results attitude. According to this study, the mean scores of AIDS knowledge were increased after intervention which could be another reason the subjects attitude level had improved. The results of this study was consistent with study of Donald, Alfonso & Teodora (2004) study a model HIV/AIDS risk reduction program in the Philippines by a comprehensive community-based approach through participatory action research who found that attitude toward condom use increased significantly from before intervention to post-test and follow up. Shamagonam et al. (2005) study the effective of print media AIDS education intervention on knowledge, attitudes, communication and behavioral intentions with respect to sexually transmitted infections among secondary school learners in South Africa which found that attitude towards condom use significantly increased at follow up.

The results found that there was increased significantly peer norm score after participants received the intervention. The increases of peer norm in this study were conducted through condom use review activity which provided a chance for the co-

workers who succeeded in condom use plan to share their achievement in order to encourage the subjects to practice the same procedure. Activities and experience sharing, including being a role model of the group result the mean scores of peer norm had increased. This might imply that co-workers were peer norm influencing condom use of the subjects (Makmai, Chowwanapoonpohn, Suwannaprom, & Kanjanarat, 2012). The results of this study was consistent with study of Williams et al. (2006) which study the effect of HIV/AIDS intervention among male sex workers in London which the participating peer norm involved in this activity were co-workers. The results found that peer norm significantly increased from pre-intervention to post-intervention.

The results found that after receiving the HIV/AIDS prevention program the subjects' mean scores on the total of perceived self-efficacy were significantly higher than those before receiving the HIV/AIDS prevention program. To increase self-efficacy, activities refusing skill were used to promote the MSWs' ability to initiate conversations with their partners on condom use by creating hypothetical situation for the subjects to practice. This result reflects the strategies of the program to motivating and supporting techniques in order to the sample have practice and improve refusing skills to create self confidence. This activity helped the sample creating more self confidence which Bandura (1997) had stated that realizing own capability is self confidence to manage and successfully conduct the wanted behavior. Practicing refusing skills was to develop or communicate the needs not to follow with the other party. In a risk situation, the stability and seriousness in rejection was very important. Bandura (1997) also stated that learning from direct experiences of own conductions could lead to the highest effectiveness in self development which creates pride to conduct easy to difficult activities as well as be confident that the situation was not over own ability to complete. Practicing refusing skills also creates self confidence to convince the clients to use condoms. However, only the practice itself could not increase self-efficacy. Bandura (1997) indicated that to change a person's self-efficacy, the person needs to obtain fair knowledge and positive attitude in that topic which means knowledge and attitude result self-efficacy change. The results of this study found that the mean scores of AIDS knowledge and attitude toward condom use were increased significantly after participants received the intervention. This might

be the reason which increased self-efficacy of the subjects. The results concured with the study of Williams et al. (2006); Kaljee et al. (2005); Pavlo, Connie & Sathiakumar (2006) which they used activities refusing skill to promote the subjects' ability for decision making and communication about HIV/AIDS with their partners on condom use. The results found that self-efficacy were significantly higher after intervention.

The results of this study showed that the proportions of subjects who had intention to use condom for vaginal, anal, and oral sex were increased significantly from before intervention to after the intervention**.** Especially, intention to use condom for vaginal, anal, and oral sex increased significantly at immediately after the intervention. Bandura (1997) reported that the person would change intention into acting. The person needs to obtain fair knowledge, high perceived infection risk, high peer norm, positive attitude and high self-efficacy in that topic which means this factors refer to intention to use change. According the result in this study found that the mean scores of AIDS knowledge, perceived infection risk, peer norm, attitude toward condom use and self-efficacy were increased. This might be the reason which increased intention to use condom of the subjects. In the ARRM, intention was most likely to predict behavior when the expression of an intention was followed closely by an opportunity to engage in the behavior (Ajzen & Madden 1986; Bagozzi, 1981; Terry, 1993). Thus, the increase of intention refers to behavior change (Bandura, 1997). The results showed that after receiving the HIV/AIDS prevention program the proportions of subjects who had condom use behavior were significantly higher than those before receiving the HIV/AIDS prevention program. There were not increased significantly of condom use behavior at immediately but there were increased at one-month and three months later, especially condom use for vaginal and anal sex. The result of this study was consistent with study of Williams et al. (2006) study the effective of HIV/AIDS intervention among male sex workers in London which found that intention to use condoms and condom use during anal sex with paying partners increased significantly from 1 to 3 months post intervention. The finding could be implied that a behavior might not change immediately after receiving an intervention. A person would later consider about advantages and disadvantages of the behavior which leads to his behavior change. However, the number of subjects who used condom for oral sex did not change from before the intervention to after the

intervention. This might be assumed that the subjects believed that oral sex could not cause AIDS infection. This can be supported by study of Makmai, Chowwanapoonpohn, Suwannaprom, & Kanjanarat (2012) which reported that almost 30% of MSWs misunderstood that not use condom for oral sex could not lead to chances of getting AIDS. Therefore, the HIV/AIDS prevention program was highly recommended to continuously be implemented in order to encourage the subjects to use condom every time when they had sex.

The key factors for success of the HIV/AIDS prevention program might be every activity conducted in HIV/AIDS prevention program. The researcher had created from related documents and researches, especially that the researcher had developed HIV/AIDS prevention program by based on the influencing factors in HIV/AIDS prevention (condom use) prior to identify any activities. Besides, the researcher had implemented focus group, using games, demonstrations and lecture to conduct the activities in order to encourage the samples were share their opinions and find various methods, as well as using VCD to supplement the lecture to visualize AIDS patients.

Limitation and suggestion for future research

1. The sample group for this research was conducted in only MSWs in Chiang Mai Province. The results of this study might only be generalized to similar populations of MSWs, and might not be applicable to MSWs who were not working in gay bars and gay massage parlors or those with a different demographic profile. Therefore, future research should be undertaken with other MSWs to achieve more representative results.

2. One group pre - posttest design was used in this study, there was no control group to compare the study results which could not ensure the study results derived from the subjects had received HIV/AIDS prevention program. Therefore, future research randomized controlled trials, comparing a group which received HIV/AIDS prevention program with a group which no received HIV/AIDS prevention program needed to conduct in order to confirm the results that cause receiving HIV/AIDS prevention program or other factors.

3. Since the data collectors were the Public Health officers and private organizations that the subjects were familiar with, there could be unacceptability bias which the subjects provided the answers to satisfy the data collectors. Thus, to ensure that the answers would never cause any effects providing the actual answers. First, the answerers were kept under cover by writing the answers and leaving into a box instead of individual interviewing. Second, the questionnaire did not identify the names and addresses of respondents. Third, data collection should be carried out by research assistants or volunteers who were not familiar with MSWs.

4. Repeatedly measuring the participants might lead to bias. Participants might be remember the correct answers or might be conditioned to know that they were being tested. Therefore, measuring tools in each period should be distinguished as parallel questionnaire which means new questions must be created differently from the previous ones while remain the same study factors.

5. The results in this study were conducted in MSWs in Chiang Mai province and the operating activities of AIDS prevention program were developed by based on factors influencing condom use behavior of only MSWs. Thus, the activities could not be applied to other target groups which different. The factors influencing condom use behavior of other groups might be different from the MSWs. The researcher suggested that before developing any different activities in the different groups from MSWs, to identified factors influencing condom use behavior should be conducted.

6. Quantitative research was used in this study. Therefore, the future research should be emphasized on qualitative study in addition to risk behaviors on sexual intercourse behavior or any other factors influencing condom use behavior of the subjects. In order to acquire in-depth information this could be implemented as accurate solutions to the problems.

Implication

An effectiveness HIV/AIDS prevention program should be an intervention which specific for each target group. HIV/AIDS prevention program should be developed based on health behavior theory through identifies the factors influencing toward HIV/AIDS prevention prior to develop any activities. Intervention would be a

series of activities design for enhancing the factors which have been identified previously as factors affecting condom use behavior.

HIV/AIDS prevention program for MSWs should be created as following

The activities should be implemented continuously and consistently with the subjects' lifestyle on every single part such as time and place. The activities for MSWs should be conducted at working place for subject's convenience. The activities must be operated prior to starting working hour and each session should be taken 45 minutes to 1 hour to complete.

The HIV/AIDS prevention program was composed of 3 sessions (8 activities). Each session was conducted 1 week after another. The activities should be operated by the health care provider or volunteers of the Mplus. Focus group discussion should be conducted to run the activities in order to exchange opinion and experiences of condom use between researchers and participants and the language was used during the activity should be more friendly like than academic language.

The effective HIV/AIDS prevention program should developed from factors that had influenced to the target group. For MSWs in Chiang Mai province, This study found that factors influencing condom use for vaginal, anal, and oral sex were age, AIDS knowledge, living with boy/girlfriend, self-efficacy, peer norm, and intention to use condom for oral sex. Therefore, the activities were conducted in HIV/AIDS prevention program for MSWs should be a series of activities designed for enhancing and encouraging these constructs. The details of activities, goals/aims, and media/game of HIV/AIDS prevention program for MSWs were shown in table 21.

Table 21 Activities, Goals/ Aims, and Media/ Game of HIV/AIDS prevention program for MSWs

Activities	Goals/ Aims	Media/ Game
Session I (week 1)		
1. Making a relationship	- To establish the relationships between the researcher and MSWs	
2. Introduction to HIV/AIDS and condom use	- To provide the participating MSWs with AIDS infection risk and AIDS knowledge	- Game (water exchange activity) - VDO about the symptoms of HIV/AIDS - Pictures presenting the severity of AIDS - Flip chart and pamphlets about AIDS
3. Discussion to share ideas about making condom use more fun	- To develop attitude toward condom use	- Condom - VDO about types of condom
4. Preparing a personal condom use plan	- To promote intention to use condom	- Plan of condom use
Session II (week 2)		
5. Review of personal condom use plans	- To develop peer norm	- Individual media especially co-worker
6. Regenerate personal condom use plan	- To promote intention to use condom	- Plan of condom use
Session III (week 3)		
7. Refusal skills training	- To improve self-efficacy	- Case simulation for refusing skill training
8. Regenerate personal condom use plan	- To promote intention to use condom	- Plan of condom use

In addition, the implications for related organization which support and supervision MSWs were presented following.

1. The results found that most of subjects had high level of knowledge about HIV/AIDS prevention but lack of understood about HIV/AIDS transmission especially sexual contact. Therefore, HIV/AIDS prevention program should be emphasize correct knowledge about sexual contact of HIV/AIDS such as everybody could expose to AIDS.

2. The results showed that 35% of subjects were ThaiYai. This may be a problem in communication between the intervention providers and subjects. Therefore, any media were used into this group must be developed, especially language. Media should be provided in both Thai and Thai Yai languages, including staffing development to communicate and understand the subjects' language as well.

3. The results found that the individuals, especially health care provider and volunteers of the Mplus had played important roles in encouraging the sample to use condoms. Therefore, the HIV/AIDS prevention program should be emphasized on the individual stimulator arranging the activities and enhancing knowledge and skills of the health care provider and volunteers of the Mplus continuously.

4. The results found that peer norm was one factor which influencing condom use of the subjects. During this study, the peer norm involved with the HIV/AIDS prevention program to encourage condom use behavior of the subjects had only co-worker. The owner, boy/girl friend and client who were peer norm influencing condom use of the subjects were not participated in the activities. Therefore, future research should have the owner bar/massage parlour, boy/girl friend and client participate in activities.