

# Quality of Life among Men who have Sex with Men (MSM) in Bangkok Metropolitan, Thailand

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## Abstract

This study aimed to explore the level of quality of life among Men who have Sex with Men (MSM) and analyze the relationships between personal factors, recognition from family members, perceived health status, health behaviors, and quality of life among MSM living in Bangkok. Data were collected from 115 MSM, who participated in activities held by Rainbow Sky Association of Thailand, by using Snowball sampling. The data were collected using WHOQOL- BREF (Thai version) questionnaire and were analyzed by descriptive statistics, Chi-Square, and Pearson's Product Moment Correlation Coefficient. The research findings revealed that MSM had a good and a moderate quality of life accounting for 42.6% and 57.4% respectively. Psychological and social relationship domain was at a good level accounting for 57.4% and 50.4% respectively. Most MSM perceived their healthy status accounting for 71.3%. Perceived health status, health protective behaviors, and health promotion behaviors were positively related to quality of life at  $p < 0.05$  ( $r = 0.452, 0.342, \text{ and } 0.417$  respectively). General health status (THAI GHQ – 28) was negatively related to quality of life at  $p < 0.05$  ( $r = - 0.410$ ). The suggestion to promote quality of life of MSM, family members and health care personnel should provide knowledge on health care, sleep, and emotional management. Health service center should be comprehensively established for specific group. It was advisable to enhance life security, pleasant accommodations, money saving, and proper health behaviors, especially prevention of sexually transmitted diseases. MSM were advised to change their non-monogamous behavior and reduce sexual risk behaviors by using condoms, perform proper sexual behaviors, have self-esteem, as well as have self-awareness and self-admiration to ensure their good quality of life.

**Keywords:** quality of life, men who have sex with men (MSM), Thailand

## Introduction

Men who have sex with men (MSM) are males who engage in sexual activity with members of the same sex, regardless of how they identify themselves. Many men of this group do not (or cannot for other reasons) accept sexual identities of homosexual or bisexual (WHO, 2009) There are no similar traits in all of the MSM population studied, other than being males

and engaging in sexual activities with other men. Some of the level of male-male sex reported by studies in Asia such as China were gay 2% or Homo-or bisexual 7% while Thailand were 3-4 % (amfAR AIDS RESEARCH, 2006). MSM have received increasing attention in Thailand and other countries in Asia because of they are particularly vulnerable and a high risk group of HIV infection rate (amfAR AIDS

RESEARCH, 2006; Yu ,Jiang , Na, Li,Diao, et al, 2013).

Determining the number of men who have ever had sex with another man is difficult. Worldwide, there are at least 3% or perhaps as high as 16% of men, have had sex at least once with a man .These figures include victims of sexual abuse in addition to men who regularly or voluntarily have sex with men. In the U.S., , there is an estimated 6% of men age 15 to 44 years have engaged in oral or anal sex with another man at some point in their lives, and about 2.9% have had at least one male partner in the previous 12 months (Mosher, Chandra & Jones,2005).

Life-style of the MSM are different from normal men and women; thus, the MSM population is deemed as a risk group with social stigma .MSM and Transgender (TG) populations in most countries of the region are highly stigmatized, discriminated against, and often socially excluded. As with other most-at-risk populations, such as intravenous drug users and sex workers, MSM and TG populations in the Region are at high risk of HIV infection. Access to prevention, treatment, care, and support services is limited compared with the large share of the HIV burden borne by these vulnerable populations (World Health Organization Regional office for South-East Asia, 2010). Published reports suggest that these groups had problems with lack of social recognition, especially from their parents; they are being assaulted, use narcotics, and have mental health problems (Bouris, Guilamo-Ramos, Pickard, et al, 2010; Bagley & Tremblay, 2002; Yu ,Jiang , Na, Li, Diao, et al, 2013).

They are at risk of with many health problems, especially HIV infection. In almost all regions, MSM

have significantly higher rates of HIV infection than the general adult population in low and middle-income countries they are 19 times more likely to be infected with HIV. (Baral, Sifakis, Cleghorn & Beyrer, 2007). However in many developed countries, including the United States, Canada, Australia, New Zealand and most of Western Europe, more HIV infections are transmitted by men having sex with men than by any other transmission route (WHO, 2009). According to a 2010 federal study, one in five men who have sex with men are HIV positive and nearly half don't realize it (USA Today, 2011). Many studies report HIV infection increase at a rate of 12% annually among 13–24 year-old American men who have sex with men (Paddock, 2008).

In Thailand, a study on characteristics of MSM in a southern province revealed that extroverted MSM were mostly students in urban areas who lived with gay senior students. MSM had different ways of life and living conditions. Some worked as cabaret performers in a bar. Their sexual behaviors put them at risk due to lack of use of condoms, particularly for married men who had sex with several persons other than their wife, including gays, men, male students, and tourists (Thaikruea & Seetamanotch, 2005). These published information indicate that health risk behaviors and social conditions affecting the MSM might be related to quality of life of MSM.

The term quality of life (QOL) refers to general well-being of individuals and societies. The term is used in a wide range of contexts, including the fields of international development, healthcare, and politics (Derek, Johnston, Pratt, Watts & Whatmore, 2009). Within the field of health cares , Walker (1992)

suggests that quality of life is a broad range of physical and psychological characteristics and limitations which describe an individual's ability to function and satisfaction from so doing. Health-related quality of life is the level of well-being and satisfaction associated with an individual's life and how the QOL is affected by diseases, accidents and treatments.

World Health Organization (WHO) defined quality of life is an overall general well-being which comprises of objective descriptors and subjective evaluations of physical, material, social, and emotional well-being together with the extent of personal development and purposeful activity all weighted by a personal set of values. Quality of life is measured by an evaluation form called WHOQOL-100 which consisted of the following 4 components: Physical health, psychological, social, and environment, with a total of 100 questions (WHO, 1998). Then, it was developed to be a brief version called WHOQOL-BREF, with a total of 26 questions. In Thailand, WHOQOL-BREF was used to assess quality of life among general population (Mahatnirunkul, Tuntipivatanaskul, Pumpisanchai, et al ,1998), the elderly (Taboonpong,,Suttharangsee & Chailangka, 2001) , and people who have cancer (Phungrassami, Katikarn, Watanaarepornchai, et al ,2004) .

## **Objectives**

The purpose of this study was: 1) to study the level of quality of life in Men who have Sex with Men (MSM) living in Bangkok area and 2) to study analyze the relationships between personal factors such as recognition from family members, perceived health

status, and health behaviors affect on the quality of life of the MSM.

## **Materials and Methods**

### **Study area and population**

This study was carried out using a cross-sectional design. The studied populations were Men who have Sex with Men at the age of 18 years and older living in Bangkok during April to December 2010. In order for the results to be statistical significant, sample size was calculated to be 96 persons (Cochran, 1977), which was increased to 115 persons to prevent loss of information. The samples were selected by snowball sampling from members of Rainbow Sky Association of Thailand who accepted their status of MSM, who were willing to participate in the study and were gay only, excluding trans genders.

### **Research instrument**

Instrument used in this research is a questionnaire form that consisted of 5 parts, as follows:

Part 1: Consisted of questions on general data classified by age, education level, occupation, average monthly income, health welfare, sexual orientation (sex role), domicile, relationship with lovers, and hometown. This questionnaire contained a total of 9 closed-ended and open-ended questions.

Part 2: Consisted of questions on family acceptance addressing the number of siblings, the number of MSM siblings, and level of family perception and acceptance.

Part 3: Health status and health status assessment form – This part was to survey perceived health status from self-assessment. There were 3

questions on physical strength, while general health status was assessed from THAI-GHQ-28 (Nilchaikovit, Sukying & Silpakit, 1996) in order to explore health status of MSM during the past few weeks excluding their previous problems. There were 4 answer choices for each question. Regarding the interpretation of THAI- GHQ 28, the score of more than 6 was deemed to be unusual.

Part 4: WHOQOL-BREF in Thai version was a modified from the assessment form of Mahatnirunkul, Tuntipivatanaskul, Pumpisanchai, et al, 1998). The questions addressed any one of experiences of the studied MSM during the past 2 weeks, which required them to explore themselves and assess real events or answers as appropriate and real as possible. There are total of 26 items for four domains (physical, psychosocial, social relationship, and environmental), one item for general quality of life, and one item for health –related quality of life.

The physical domain was addressed in item 2, 3, 4, 10, 11, 12, 24; six items in the psychological domain was addressed in item 5, 6, 7, 8, 9, 23; three items in the social relationship domain was addressed in item 13, 14, 25; and eight items in the environmental domain was addressed in item 15, 16, 17, 18, 19, 20, 21, 22. As for item 1 and 26, the questions involved quality of life and overall health status, which were not included in the above 4 aspects. There were 3 negative questions in item 2, 9, 11. Remaining 23 items were positive questions. The 5-point rating score was used based on the following determination: In case of positive questions, not at all = 5 points, slightly = 4 points, moderate = 3 points, high = 2 points, highest = 1 point. In case of negative questions, not at all = 1 points, slightly = 2 points, moderate = 3 points, high = 4 points, highest = 5 point. Total points and points of each aspect of quality of life were shown in Table 1.

**Table 1**

*Scores of each aspect of quality of life*

Aspect	Poor quality of life	Moderate quality of life	Good quality of life
1. Physical	7 – 16	17 – 26	27 - 35
2. Psychological	6 – 14	15 – 22	23 - 30
3. Social relationship	3 – 7	8 – 11	12 - 15
4. Environmental	8 – 18	19 – 29	30 – 40
Overall of quality of life	26 – 60	61 – 95	96 - 130

## Part 5: Health behaviors included

### 5.1 Health preventive behaviors –

There were 8 closed-ended questions with 5 rating scales.

### 5.2 Health promotion behaviors –

There were 12 closed-ended questions with 5 rating scores.

Scoring of both parts were as follows:

Most accurate = 5 points, Accurate = 4 points, Combination of accurate and inaccurate = 3 points, Inaccurate = 2 points, Most inaccurate = 1 point.

The interpretation was made by using average scores as follows: Average scores of 3.67-5.00 points represented good behaviors, Average scores of 2.34-3.66 represented moderate behaviors, and Average scores of 1.00-2.33 represented poor behaviors.

### 5.3 Health risk behaviors in respect to

blood-borne and sexually transmitted disease – There were 10 questions with the following answer choices: Yes, No, Uncertain, Not willing to answer. Two positive questions were item 5, 6 which scored 0 point for “Yes/Uncertain” and 1 point for “No”. Eight negative questions were item 1, 2, 3, 4, 7, 8, 9, 10 which scored 1 point for “Yes” and 0 point for “No/Uncertain/Not wishing to answer”. Level of risk was assessed by using average scores as follows: Average scores of 0.00-0.33 represented low risk, Average scores of 0.34-0.66 represented moderate risk, and Average scores of 0.67-1.00 represented high risk.

The research instrument was validated by experts and trial used. The reliability was analyzed by using Cronbach’s Coefficient Alpha resulting 0.901 of reliability of the whole questionnaire. Based on the classification of quality of life, the reliability

coefficients for the physical, psychological, social relationship and environmental quality of lives were 0.70, 0.72, 0.58 and 0.78 respectively. While the reliability coefficients of THAI GHQ-28, health preventive behaviors, health promotion behaviors and health risk behaviors were 0.86, 0.68, 0.85 and 0.53, respectively.

## Data collection

Data were collected after the ethical approval from Mahidol University (MUPH2010-081), received permission and cooperation from the Rainbow Sky Association of Thailand. The data were collected from MSM who joined activities of the Association during March – December 2010. The researcher explained the objectives of the study and requested for cooperation from the studied subjects. There were 115 sets of returned questionnaires which accounted for 100% of the samples. These questionnaires were reviewed to ensure completeness prior to the data analysis.

Statistical analysis was performed using and expressed as frequency, mean, standard deviation and percentage. The relationships between personal factors, family acceptance, health status, health behaviors, and quality of life of MSM were analyzed by using Chi-Square ( $\chi^2$ ) and Pearson’s Product Moment Correlation Coefficient.

## Results

### Demographic information

Most MSM whose age was between 18-24 years accounted for 47.8% of the studied group, 25-34 years of age accounted for 40.0%, 35 years of age and older accounted for 12.2%, The youngest member’s age

was 18 years old, and the oldest one age was 61 years old ( $\bar{x} = 26.24$  years,  $SD = 6.905$  years). The majority (65.2%) of the studied MSM had bachelor's degree and higher educational level, while 34.8% of the studied sample had below the bachelor's degree. The studied MSM sample was comprised of 14% public official, 8% state enterprise official, 22% private company employees, 32% students and 26% other occupations. Small majority (43.5%) of the studied subjects were living in rental houses and/or dormitories, followed by 33.9% who lived in their own houses, while 8.7% live in relatives' house and 13.9% lived in other types of accommodation. Monthly income for 41.7% of the studied MSM was between 10,000 to 15,000 Baht, while 48.8% of them had sufficient income but they had no saving. The minimum and maximum monthly incomes were found to be 1,000 and 50,000 bahts, respectively ( $\bar{x} = 13,833.81$  baht,  $SD = 8,879.766$  baht), Majority (64.3%) of studied MSM received health welfare, while 35.7% of them did not receive health welfare.

As for relationship with lovers and sexual orientation of MSM, 51.3% was single, 15.7% lived with their lovers, and 33.0% lived with their lovers occasionally. Relationship role in the studied MSM, 21.7% took the assertive role, while 27.8% took the receptive role, whereas 18.3% took both roles equally. Regarding family acceptance of the studied MSM, 82.6% had siblings, 17.4% was the only child, and 20.0% had siblings or relatives who are MSM. As for their family perception, 58.3% were perceived by every member in their family, 22.6% were not perceived by every member in their family, 18.3% were perceived by some members in their family. In addition, MSMS

status of 38.3% was recognized by their family, 18.3% was not recognized, and 42.6% felt indifferent.

With regard to perceived health status, 15.7% of the studied MSM perceived their excellent health, 71.3% perceived their good health, while 13.0% perceived that they were not sufficiently healthy or unhealthy. According to the assessment on perceived health status by THAI GHQ-28, 86.1% of the studied MSM were considered to be normal, and 13.9% were abnormal. BMI assessment of nutritional status found 68.7% of the studied MSM met the normal criteria, 8.7% of the surveyed MSM had nutritional status lower than the criteria (too thin), 22.6% were overweight, and 14.8% had congenital diseases of which 9 persons were specified as allergy. 15.7% of MSM sample was ill and had to see doctors more than 3 times during the past year.

### Health behaviors

Regarding health preventive behaviors such as self-prevention from serious communicable diseases, using condom every time of sexual intercourse, appropriate and efficient stress management, quitting smoking, and prevention of serious communicable diseases such as avian flu, Dengue hemorrhagic fever, and sexually transmitted diseases were at a good level. Diet and weight control to avoid being overweight and refraining from drinking alcohol beverages were at a moderate level. Overall health preventive behaviors of the studied MSM, 42.6% were at a good level and 57.4% were at a moderate level.

In the area of health promotion behaviors of the studied MSM, 43.5% were at a good level, and 56.5% were at a moderate level. Based on the

classification of each item, the following items were at a moderate level: Going for exercise properly for at least 3 times per week, eating the five food groups, vegetables, and fruits regularly, sleeping for 6-8 hours per day, doing activities beneficial for themselves and other people during their spare time.

In the area of health risk behaviors of the studied MSM, 24.3% had a moderate health risk behaviors level, 1.7% had a high level of health risk behaviors, and 73.9% had a low risk level. Results of each classifying item, found that high level or percentage of the studied MSM had sex with only one partner (26.1%). Moderate population (43.5%) of the studied MSM practice self-prevention from sexually

transmitted diseases by denying unprotected sex at all times.

### Quality of life

Overall of quality of life of the studied MSM – 42.6% had a good level, and 57.4% had a moderate level of quality of life. With respect to physical and environmental aspects of quality of life, most of the studied MSM responded with having a moderate level accounting for 55.7% and 70.4% respectively. While 57.4% and 50.4% of the studied MSM indicated having a good level of psychological and social relationship quality of life, respectively (Table 2).

**Table 2**

*Number and percentage of MSM classified by level of overall and each domain of quality of life (n=115)*

Quality of life	Level of quality of life			$\bar{x}$	SD	Criteria
	Poor	Moderate	Good			
	Number (%)	Number (%)	Number (%)			
1. Physical	0(0.0)	64(55.7)	51(44.3)	26.49	3.34	Moderate
2. Psychological	1(0.9)	48(41.7)	66(57.4)	22.50	3.14	Moderate
3. Social relationship	0(0.0)	57(49.6)	58(50.4)	11.15	1.73	Moderate
4. Environmental	2(1.7)	81(70.4)	32(27.8)	26.72	4.05	Moderate
Overall of quality of life	0(0.0)	66(57.4)	49(42.6)	94.40	11.23	Moderate

The studied MSM had a good quality of life according to the response to the physical domain of the questionnaire (items 2, 3, 4, 10, 11, 12 and 24). They have energy to perform daily routine activities, such as works, go to receive treatment and independently travel.

Physical pains such as headache, stomachache, and body ache that may interfere their physical activities were at a moderate level. In addition, their satisfaction with sleeping, daily completed tasks, and ability to perform work were at a moderate level.

Analysis of the psychological domain of the questionnaire (items 5, 6, 7, 8, 9, and 23), showed the studied MSM had a high level of satisfaction with life (i.e. being happy, peaceful, and hopeful), self-esteem, acceptance of physical appearance, and perceived meaningful life. Their work concentration and frequent negative feelings i.e. being lonely, sad, depressed, hopeless, anxious were at a moderate level. Evaluation of the social relationship domain (items 13, 14, and 25), indicated that their satisfaction with previous friendliness or socialization, assistance from friends, and sexual life (i.e. being able to release sexual feelings including masturbation or sexual intercourse) were at a good level.

With regard to environmental domain of the questionnaire (items 15, 16, 17, 18, 19, 20, 21, and 22), quality of life for the studied MSM was at moderate level. Most of the studied MSM felt secure each day, had sufficient money for necessities, were satisfied with public health services as deemed necessary, were provided with essential daily news, had the opportunity

to relax, felt pleasant with existing residence, lived in a healthy environment, and were satisfied with traveling by themselves.

This study found that overall quality of life of the studied MSM had a significant ( $p$ -value  $< 0.05$ ) relationship with personal factors such as perceived health status, general health status, type of residence, and health behaviors. However, age, income, occupation, education, and family acceptance were not related to overall of quality of life of the studied MSM.

Perceived health status of the studied MSM was positively related to overall of quality of life at a low level ( $r=0.452$ ); however, the general health status the studied MSM (assessed by THAI GHQ-28) was inversely related to overall of quality of life at a low level ( $r=-0.410$ ). Health preventive behaviors and health promotion behaviors of the studied MSM were positively related to overall of quality of life at a low level ( $r=0.342$  and  $0.417$ , respectively) (Table 3 and Table 4).

**Table 3**

*The relationships between age, income, BMI, perceived health status, health behaviors and overall of quality of life of MSM (n=115)*

Overall of quality of life	n	r	p-value
Health status			
Perceived health status	115	0.452**	< 0.01
General health status (Thai GHQ-28)	115	-0.410**	< 0.01
Health behaviors			
Health preventive behaviors	115	0.342**	< 0.01
Health promotion behaviors	115	0.417**	< 0.01
Health risk behaviors	115	0.008	0.933

\*\*p-value = 0.01

**Table 4**

*The relationships between personal factors and overall of quality of life of the studied MSM in Bangkok area (n=115).*

Overall of quality of life	Level of quality of life		$\chi^2$	df	p-value
	Moderate Number (%)	Good Number (%)			
Type of residence					
Own house	15(38.5)	24(61.5)	11.127	3	0.011*
Relative's house	9(90.0)	1(10.0)			
Rental house/dormitory	32(64.0)	18(36.0)			
Others	10(62.5)	6(37.5)			

\*p-value = 0.05

## Discussions

This study of quality of life of MSM living in Bangkok area revealed many issues faced by member of the MSM. The studied sample of MSM was mostly made up single men. The majority had bachelor's degree, works and had sufficient income. However, they had no savings. About one third (35.7%) of the studied MSM did not receive health welfare from the government. The studied MSM who lived in their own house had a better quality of life than those who did not live in their own house because MSM who lived in their own house did not paid money for rent and they saved money more than other group. Those who lived in the rental house or dormitory had a moderate quality of life level. Surprisingly, personal factors such as age, education level, occupation, income, health welfare, MSM way of life in terms of relationship with lovers and sexual orientation were not significantly related to overall of quality of life of the studied MSM.

The studied MSM members were more socially extroverted. Over half (58.3%) of the family of the studied members acknowledged their MSM status. This level of family acceptance was higher than the previous study of Ingkawat (1999), where only 33.33% whom their family acknowledged their MSM status, 20.0% had relatives or siblings who were MSM, while acknowledgement and acceptance of their family on their MSM status were not related to their quality of life. However, almost half of the studied MSM were not recognized by their family. The high number of family acceptance in this study could be influenced by higher tolerance, more open mind and have better educated population. Accord, to the study of Thaikrua & Seetamanotch (2005), most MSM would not uncover or reveal their MSM status, especially in Thai-Muslim men. Their MSM status would not be recognized by religion and family, and further their parents would get them to marry with women in order to conceal their status. These MSM would occasionally have sexual

relationship with their MSM friends, general MSM population, boys, and tourists in a secret manner.

This surveyed found a large number of the studied MSM (54.0%) was sick and needed to see the doctor over the past year. Almost fifteen percent had congenital disease. Nine percent used to be infected with sexually transmitted disease over the past year. The assessment on their general health status found that 13.9% were unusual. Physical health and general health status of MSM were negatively related to quality of life with a 0.05 level of statistical significance ( $r = -.287$ ) and ( $r = -.245$ ).

Health preventive and promotion behaviors of the studied MSM were at a moderate level. These behaviors had a low but positive - influenced the overall quality of life of the studied MSM at a low level (where  $r = 0.342$  and  $0.417$  for health preventive and health promotion behaviors, respectively). This indicated that self-care for healthy condition affected well-being and satisfaction with life. However, the studied MSM had some health risk behaviors which needed to be improved; such as smoking or use of narcotics, and drinking alcohol. Besides, almost half of the studied MSM used to have sex without a condom, and had sex with people other than their lovers or strangers without a condom which might lead to HIV infection. Accordingly, the study of Thaikruea and Seetamanotch (2005) revealed that general Thai MSM in the urban areas of southern provinces did not use of condom during sexual intercourses. Sex trade was available in hotels to gain income from general public and tourists including male friends known via the internet, beauty salons, and provincial festivals. They had sex with MSM friends and MSM members from the sex trade in

a secret manner. Only, the senior MSM would use of condom to prevent diseases, because they had known that their friends died of HIV infection. However, they did not use a condom consistently as they believed that their sexual partners were not likely to be infected with HIV, and sometimes they had no condoms. In the meantime, the teenage MSM hardly used a condom to prevent diseases, so HIV infection rate was quite high by 13%. Accordingly, the study of Panpanich, Ungchusak & Detels (2004) revealed a concern that increasing MSM numbers in tourist entertainment businesses will exacerbate MSM sex trade and spread HIV into a general population.

The majority of the studied MSM accounting for 57.4% had a moderate level of the overall quality of life. Fifty-six percent had a moderate level of quality of life in physical aspect, and 44.3% achieved a good level because they had sufficient energy to do activities in terms of works or daily routines. It was necessary for them to receive treatment in order to ensure their works or daily life. They had a good ability to travel by themselves, but felt some body aches. They were satisfied with their sleep. Their ability to do daily activities and perform tasks as usual was at a moderate level.

Regarding psychological aspect of quality of life, 57.4% achieved a good level because they were satisfied with their current physical appearance. Nevertheless, almost half of MSM (41.7%) considered having a moderate level of quality of life possibly due to work and frequent negative feelings such as lonely, sad, depressed, hopeless, and anxious. Likewise, the study ... revealed that gay, lesbian, and bisexual youths had 4 times higher suicide rate than normal people. In

this regard, perceived health status of the studied MSM was positively related to overall of quality of life ( $r=0.452$ ), and general health status (THAI-GHQ-28) was inversely related to overall of quality of life ( $r=-0.410$ ). In this study, perceived health status was assessed from self-assessment of perceived physical strength, while health status was assessed by general assessment form focused on mental health. Thus, if the studied MSM considered themselves physically strong, they would feel that they had a good quality of life, and good mental health also indicated a good quality of life. This is because the feeling of physically strong and mentally healthy gave them energy to deal with daily life tasks. The perception of quality of life by the studied MSM was in accordance with the definition by the WHO which defines quality of life involves physical and psychological strength of individuals, together with social recognition, and good living condition.

Regarding social relationship aspect, 50.4% achieved a good level because most of the studied MSM were satisfied with the relationship with friends and social circles. Assistance from their friends, and sexual life (i.e. being able to release sexual feelings including masturbation or sexual intercourse) were at a good level probably because the studied MSM had the specific society, and assistance and advices had been given from senior members to junior members. According to the study in Thailand by Thaikruea and Seetamanotch (2005), senior students provided assistance and advices for junior students in the MSM society in schools with respect of hormone replacement therapy and the gay way of life.

Regarding environmental aspect, 1.7% of the studied MSM responded of having a poor level of

environmental quality of life, and the majority of 70.4% had a moderate level of environmental quality of life. This study suggested that most of the studied MSM were satisfied with their existing residence, and their surrounding environment, specifically, accessible to public services and the ability to freely travel. Besides, in terms of economics especially affordability, they achieved a moderate level because most of them were students who had not earned by themselves, but earned income from families. Their monthly average income was 10,000-15,000 baht. Forty-two percent had sufficient income, but 48.7% had no savings, which might cause financial problems. Accordingly, the study of Thaikruea and Seetamanotch (2005) revealed that the MSM who worked as a cabaret performer would also involve in sex trade to earn more money. The MSM members from the north and northeastern regions who moved to Phuket for the purpose of entertainments and sex businesses had complained about problems with public health service accessibility.

## Conclusions

Most of MSM had a moderate quality of life (57.4%). Psychological and social relationship domain was at a good level accounting for 57.4% and 50.4% respectively. While physical and environmental domain was at a moderate level accounting for 55.7 % and 70.4 % respectively. Most of MSM perceived their healthy status accounting for 71.3%. This study found that overall quality of life of the studied MSM had a significant ( $p$ - value < 0.05) relationship with personal factors such as perceived health status, general health status, type of residence, and health behaviors. However, age, income, occupation, education, and

family acceptance were not related to overall of quality of life of the studied MSM. Perceived health status, health protective behaviors, and health promotion behaviors were positively related to quality of life at  $p < 0.05$  ( $r = 0.452, 0.342,$  and  $0.417$  respectively). General health status (THAI GHQ – 28) was negatively related to quality of life at  $p < 0.05$  ( $r = - 0.410$ ).

### **Recommendation to promote quality of life for MSM**

To promote a good quality of life for MSM, their families and public health officers should provide knowledge on health care, sleeping, and emotional management. In addition, a comprehensive health service center for the specific group should be established in order to enhance service accessibility without discrimination as well as gain social recognition. Regarding environmental aspect, it was advisable to promote life security and good residential environment. Advice on saving money while having

earning ability should be given. Knowledge on the prevention of sexually transmitted diseases should be provided by exploring how to adjust behaviors of swinging and unprotected sex. The awareness should be cultivated to realize benefits of use of condoms for every sexual intercourse. Self-esteem should be enhanced by attempting to create self-admiration. Creative capabilities of MSM should be publicized so as to build social recognition.

### **Recommendation for future study**

The study on quality of life should be conducted with MSM in other subgroups such as school-age group, teenagers, working group, and persons with health problems, i.e. AIDS, anal cancer, warts, which were common diseases among MSM, in order to assess their quality of life, explore problems, and find solutions so as to further improve quality of life by means of the in-depth interview in association with quantitative interview.

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