SEXUAL RISK-BEHAVIORS FOR HIV INFECTIONS AMONG YOUNG CROSS-BORDER MIGRANT WORKERS LIVING IN URBAN CHIANG MAI, THAILAND

Veruree Manoyos[1], Arunrat Tangmunkongvorakul[1, *], Kriengkrai Srithanaviboonchai[1, 2], Sawang Yangyuenkul[1], Richard M. Grimes[3, 4]

[1] Research Institute for Health Sciences, Chiang Mai University, Chiang Mai, 50200, Thailand
[2] Faculty of Medicine, Chiang Mai University, Chiang Mai, 50200, Thailand
[3] Baylor-UT Houston Center for AIDS Research, Texas, USA
[4] Division of General Internal Medicine, Medical School, University of Texas Health Science Center at Houston, Texas, USA

ABSTRACT:

Background: The number of cross-border migrant workers in Thailand has increased continuously. Chiang Mai City is one of the most urbanized metropolitan areas outside Bangkok, and its economic growth requires a high number of laborers. This demand has attracted many young migrant workers from neighboring countries who look for employment in this urban area. With the way of life and their sexual behavior in a new city, these young people are at risk for HIV infections.

Methods: This study was conducted in order to quantify the sexual risk behaviors of young cross-border migrants in Chiang Mai and to determine potential interventions for them. A structured interview questionnaire was used to collect the data. The survey data were from 442 cross- border migrant workers (220 males and 222 females), aged 15-24 years, and living in urban Chiang Mai, Northern Thailand. The participants were drawn from 19 different sites to cover all 16 sub-districts in urban area where young migrant workers were scattered around the city.

Results: The data showed that 57.0% had had sexual intercourse (65.0% among males and 49.1% among females). Among the sexually active group, average ages of sexual debut were 18.6 among males and 17.7 among females. Over half of males had had more than one partner, 63.5% never used or had a partner use condoms (56.6% among males and 72.5% among females). Among those who reported ever using condom, the majority (68.5%) used them inconsistently.

Conclusion: A significant proportion of respondents engaged in behaviors that put them at high risk for HIV and other sexually transmitted infections. Findings can help to design and implement appropriate HIV prevention programs/policy for cross-border migrant workers given the future free movement of labor under the Association of Southeast Asian Nations (ASEAN) Economic Community.

Keywords: Sexual behaviors, Condom use, HIV/AIDS, Young cross-border migrant workers, Thailand

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INTRODUCTION

Migrant workers have been an important factor in driving the growth of Thai economy. The Office of the Foreign Workers Administration [1] says the total number of legal migrant workers in Thailand was 1,541,343 in August of 2014. There are also many undocumented migrants as can be seen by The Economist's estimate that Thailand had 2-3,000,000 migrant workers [2]. A 2012 study estimated that the number of migrants in Thailand was 3.5 million [3]. These numbers have been increasing due to poor economic circumstances and violence in neighboring countries. Thailand is a member of The Association of Southeast Asian Nations (ASEAN), an organization that is committed to the economic integration

* *Correspondence to: Arunrat Tangmunkongvorakul*
E-mail: arunrat@rihes.org

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in the region, including free movement of labor [4]. As a result Thailand faces the prospect of an increasing number of migrant workers from neighboring countries moving to Thailand. The flow of migrant workers will impact community health services and public health system [5].

Several studies [6, 7, 8] reported that migrant workers in Thailand engaged in risky sexual behaviors and did not know how to protect themselves from sexually transmitted infections (STIs). The Bureau of epidemiology, Ministry of Public Health [9] reported that 0.8% of migrant workers aged between 15-24 years were infected with HIV and the epidemic among this vulnerable population continues to grow. Many migrants had poor access to appropriate healthcare services and did not have opportunities to acquire knowledge on sexual and reproductive health [10, 11]. Chamratrithirong et al. [6] pointed out that some of them had heard about AIDS/HIV, but still had confusion and limited understanding about HIV and how it was transmitted. Another study showed that the migrants had a low rate of condoms use [12]. It has also been reported that some migrants did not use condoms when they had sex with sex workers because they had been drinking and/or taking drugs [13]. These researchers also found that the most prevalent category of first sexual partners had changed from their loved ones to casual sex partners. The study showed that migrant workers aged between 15 to 25 years had more instances of casual sex without condoms than those aged between 26 to 35 years. Also, those aged between 15 to 25 years were less likely to be tested for HIV [11].

The Ministry of Public Health has developed plans to improve the health and welfare of the migrants. They include providing health examinations, medical care, necessary treatments, health screening for the high-risk groups, family planning services, counseling, and other health care support programs as well as disease control and surveillance [14]. However, the program has just begun and has not been implemented nation-wide. Non-governmental organizations are also working to improve accessibility to health care for migrant workers. The implementation of the plan has been well managed in some areas, yet there are challenges to overcome, particularly dealing with the difficulty of providing an adequate workforce, and financial support for the program. The government policies related to the working status of migrant workers are unclear and have impeded achieving the goals of the national strategy on HIV prevention [15, 16].

In Chiang Mai in 2013, there were 77,616 legal migrant workers who were 15 years old and above [17]. This is approximately 10% of the population of the Chiang Mai metropolitan area. Given the country's high ratio of illegal to legal migrant workers, the true number of migrants is certainly much higher. Of the legal migrants, 82% were from Myanmar while the remaining was from Laos and Cambodia [17]. These migrants primarily worked as unskilled laborer in agriculture, construction, factories, service businesses, logistics, household labor and community services. Most of them also lived in poor accommodation and had low-level of hygiene practices [6].

The current Thai National HIV/AIDS plan (2012–2016) aimed to have zero new HIV infection. An important strategy is to provide preventive measures for the groups vulnerable for contracting HIV including migrant workers [18]. However, there is a limited number of studies on HIV risk-behaviors among young migrant workers, especially in Chiang Mai. This study was therefore aimed to investigate sexual experience and HIV risk-behaviors among young migrant workers. The information on sexual and reproductive health will help to design proper interventions among this group.

MATERIALS AND METHODS

Among the 77,616 legal migrant workers in Chiang Mai, 19,404 were young labors aged 15 – 24 years old [19]. The sample size was 395 according to Taro Yamane's equation [20] with 95% confidence level. The samples were drawn by convenience sampling technique from 19 different sites to cover 16 sub-districts in urban area where young migrant workers were scattered around the city. A structured interviewed questionnaire was used to collect the data. Field research team screened the prospective respondents before conducting the interviewed questionnaire to consider if they met the inclusion criteria (migrant worker, non-Thai, aged 15-24 years). The interviews took place in the quiet places at the areas where young migrants met, for instance, outdoor area at living camps, temple areas, non-formal education centers for migrant workers, and various construction sites. Migrants who had poor Thai language would have the interviews with interviewers who spoke the migrants' languages (mostly Shan and Burmese).

The questionnaire consisted of questions

Table 1 Socio-demographic characteristics of young migrant workers

Socio-demographic characteristics	Male (n=220)		Female (n=222)		Total (n=442)	
	Number	%	Number	%	Number	%
Age (years)						
15 - 18	37	16.8	68	30.6	105	23.8
19 - 21	92	41.8	77	34.7	169	38.2
22 - 24	91	41.4	77	34.7	168	38.0
Race						
Shan	188	85.5	200	90.1	388	87.8
Burmese	19	8.6	5	2.2	24	5.4
Karen	4	1.8	0	0.0	4	0.9
Others (i.e. Lao, Cambodian, other hill-tripe)	9	4.1	17	7.7	26	5.9
Nationality						
Burma	217	98.6	218	98.2	435	98.4
Laos	2	0.9	2	0.9	4	0.9
Cambodia	1	0.5	2	0.9	3	0.7
Marital status						
Single	164	74.6	154	69.4	318	71.9
Married (traditional or legal)	52	23.6	65	29.3	117	26.5
Separate/widow/divorce	4	1.8	3	1.3	7	1.6
Education from home country						
No	52	23.6	83	37.4	135	30.5
Yes	168	76.4	139	62.6	307	69.5
Time of living in Thailand (years)						
Less than 1	37	16.8	19	8.5	56	12.7
1 - 4	116	52.7	116	52.3	232	52.5
5 - 9	44	20.0	38	17.1	82	18.5
10 or more	23	10.5	49	22.1	72	16.3
Having work permits						
No	62	28.2	54	24.3	116	26.2
Yes	158	71.8	168	75.7	326	73.8
Having health insurance						
No	139	63.2	121	54.5	260	58.8
Yes	81	36.8	101	45.5	182	41.2
Job						
Laborer in construction site	137	62.3	183	82.4	320	72.4
Laborer in agricultural field	69	31.4	33	14.9	102	23.1
Others (i.e. merchant, independent job)	6	2.7	3	1.3	9	2.0
Monthly income (Baht)	8	3.6	3	1.4	11	2.5
5,000 or Less	11	5.0	18	8.1	29	6.6
5,001-10,000	189	85.9	197	88.7	386	87.3
More than 10,000	20	9.1	7	3.2	27	6.1

adapted from the survey on risk-behaviors for HIV/AIDS transmissions by Bureau of Epidemiology, Ministry of Public Health [21] and Individual Questionnaire for Migrant Workers from Prevention of HIV/AIDS among migrant workers in Thailand 2 (PHAMIT 2): The Baseline Survey 2010 [6]. The interviewers were trained in interview techniques and were given general information about the nature of the project. All respondents gave their informed verbal consent, and those aged 15-17 years old would have the written consent (or finger print) from their guardians prior to participate in the study The study was approved by the Human Experimentation Committee, Research Institute for Health Sciences, Chiang Mai University (approval code: 52/2557, date: 7 October 2014).

The analysis was performed using SPSS for Windows 17 (SPSS Inc., Chicago, Illinois, USA). Descriptive statistics including frequencies, percentage, means, and standard deviation were applied to analyze sexual risk-behavior. Chi-square was used to compare sexual risk behaviors, and difference of age for first sexual experience of male and female respondents was also compared using independent t-test.

For limitations of the study, like all studies of

Table 2 Age at first sex among sexually active young migrant workers

Age at first sex (years)	Male (n=143)		Female (n=109)		Total (n=252)	
	Number	%	Number	%	Number	%
≤ 18	80	55.9	70	64.2	150	59.5
> 18	62	43.4	36	33.1	98	38.9
Not remember	1	0.7	3	2.7	4	1.6
Mean age	18.6 (S.D.= 2.11)		17.7 (S.D.=2.13)		18.2 (S.D.= 2.53)	

Table 3 Sexual partners of sexually active young migrant workers

	Male (n=143)		Female (n=109)		Total (n=252)	
	Number	%	Number	%	Number	%
Number of life time sexual partners						
1	67	46.8	88	80.7	155	61.5
2 - 4	46	32.2	21	19.3	67	26.6
5 or more	26	18.2	0	0.0	26	10.3
Not remember	4	2.8	0	0.0	4	1.6
Type of first sexual partner						
Boyfriend/girlfriend	125	87.4	106	97.3	231	91.7
Friend	11	7.7	3	2.7	14	5.5
Acquaintance	6	4.2	0	0.0	6	2.4
Commercial sex worker	1	0.7	0	0.0	1	0.4

this type, it was not feasible to conduct a random sample of migrants due to lack of finite population. As a consequence, our results may not reflect the behavior of all young migrants in Chiang Mai, as well as in Thailand. There is also risk of social desirability bias answers given the sensitive nature of sexual behavior issue. However, the adequate number of respondents does provide insights into how to intervene with this population.

RESULTS

Socio-demographic information

There were 442 respondents, 50.2% of whom were female. The average age of participants was 20.4 (S.D. = 2.53), 38.2% aged 19-21 years, and 38.0% aged 22-24 years. The race of participants was mainly Shan (87.8%) while others were Burmese, Karen, Lao, Cambodian, or other hill-tripe. Most respondents were from Myanmar (98.4%), were single (71.9%), had a work permit (73.8%), and had received some education from their home country (69.5%). About two-thirds of young migrant workers had lived in Thailand for less than 5 years. Less than half of the respondents (41.2%) had the medical insurance operated by Thai government under the migrant worker's welfare program. Three quarters of young migrant workers (72.4%) worked in construction sites while others worked in agricultural (23.1%), or had an independent job (2.0%). Monthly income of most young migrant workers (87.3%) was between 5,001-10,000 baht (approximately 150-300 US$) (see Table 1).

Sexual experience

More than half of the respondents (57.0%) reported ever had sexual intercourse. In this group, more male (65%) than female (49.1%) reported ever had sex ($\chi 2 = 11.40$, $p<0.001$). Sixty percent of the respondents had first sex at the age of 18 years old or younger. The average age of first sexual experience was 17.7 for female and 18.6 for male ($p < 0.001$), Table 2.

Number and type of sexual partners

Of the sexually experienced respondents, 36.9% had had more than one sexual partner (Table 3). Male participants had more lifetime partners compared to females ($\chi 2 = 27.59$, $p<0.001$). Almost one-fifth (18.2%) of males reported that they had had 5 or more lifetime sexual partners, while none of females reported that. The first sexual partner was mainly boyfriend/girlfriend (91.7%), while some had first sex with friend (5.5%) or acquaintance (2.4%). Only a few of respondents had first sex with a commercial sex worker (0.4%). Females were more likely to have first sex with their loved ones compared to males ($\chi 2 = 10.685$, $p=0.013$).

Condom use

Approximately one third of the sexually experienced respondents (36.5%) reported ever used

Table 4 Condom use among sexually active young migrant workers

	Male (n=143)		Female (n=109)		Total (n=252)	
	Number	**%**	**Number**	**%**	**Number**	**%**
Ever used condom						
No	81	56.6	79	72.5	160	63.5
Yes	62	43.4	30	27.5	92	36.5
Consistency of condom use	**(n=62)**		**(n=30)**		**(n=92)**	
Every time	20	32.3	9	30.0	29	31.5
Mostly	16	25.8	7	23.3	23	25.0
Sometimes	26	41.9	14	46.7	40	43.5

Table 5 Opinions on condom use among sexually active young migrant workers

Opinions on condom use	Male (n=143)		Female (n=109)		Total (n=252)	
	Number	**%**	**Number**	**%**	**Number**	**%**
Convenience to get access to condom						
Inconvenient	45	31.5	24	22.0	69	27.4
Convenient	75	52.4	50	45.9	125	49.6
Not know/not sure	22	15.4	34	31.2	56	22.2
No answer	1	0.7	1	0.9	2	0.8
Condoms reduce sexual pleasure						
Not Agree	24	16.8	20	18.3	44	17.5
Agree	71	49.6	22	20.2	93	36.9
Not sure	46	32.2	64	58.7	110	43.6
No answer	2	1.4	3	2.8	5	2.0

condom, and condom use was more frequent among males (43.4%) than females (27.5%) ($\chi 2 = 6.69$ p=0.010). Among those who used condom, only 31.5% used it every time, while the rest reported using it either most of the time (25.0%) or sometimes (43.5%). There was no difference between males and females on the consistency of condom use (Table 4).

Opinions on condom use

Among sexually active young migrant workers, 52.4% of males reported that it was easy to get access to condom, but around half (49.6%) felt condoms reduced their sexual pleasure. However, opinions were more diverse (including the opinions of not know or not sure) among females when they were asked about access to condom, or whether condoms reduce pleasure of sex (Table 5).

DISCUSSION AND CONCLUSION

The finding that a low proportion (36.5%) of young sexually active migrant workers reported ever used condom is consistent with previous studies among migrant workers conducted elsewhere in Thailand which around one-third of the sexually active groups reported ever using condom [11, 12, 22]. This suggests that this lack of condom use by migrants is a long standing and widespread behavior that needs to be addressed by health authorities. This will not be an easy task. Almost two thirds of the respondents have been in Thailand for less than five years and are thought to have very limited ability in Thai language and, therefore, may not be reached by material written in Thai. Thirty percent of the respondents did not receive any education in their home countries implying that even written communication in the immigrants' native language will miss many of those at risk. Relying on verbal communication at clinical encounters may not be effective in that 58.9% do not have health insurance. When they became ill, some avoided using government facilities and preferred private clinics or used self-treatment by acquiring medications from the pharmacies [23]. Over a quarter of the respondents did not have work permits and did not have legal status in Thailand. Those without work permits are likely to be reluctant to engage with public health educators who may be seen as governmental representatives.

The early age at first intercourse and the relative recent arrival in Thailand (< 5 years) for nearly 70% of the respondents suggest that some of these migrants were sexually active coming to Thailand. This may reflect the cultural norms of the countries from which they come and will need to be considered by those who are planning interventions.

It means that qualitative studies need to be conducted with this population in the migrants' language in order to learn these norms and to design interventions that are consistent with cultural beliefs and standards.

These barriers to communicating are compounded by attitudes toward condom use. Condom use among young people carries with it the social stigma of being promiscuous. In our study, although accessing condoms was thought to be easy at any convenience stores, the stigma associated with condom use was shown to deter young people in Thailand from buying condoms at the shops, or even getting free condoms at government health establishments [24]. In addition, the perception that condom reduces sexual pleasure, documented in a previous study of migrant workers in Thailand [6], was also reported in our study not only by the majority of respondents who had ever used condoms, but to a certain extent, among respondent who had never used condom. Future interventions promoting safer sexual behaviors among migrant workers will do well to address these barriers to condom use.

Trust and romantic intimacy have been found as the main reasons not to use condoms when having sex [24]. The finding that males had more lifetime partners than females, and that females were less likely to use condom than males reflect the existing gender differences in sexual norms and behaviors observed in other studies. For example, a previous study reported that women failed to use condoms because they felt uncomfortable requiring the use of condoms fearing that it may signal distrust of their partners [25]. In another study, the belief that women are prohibited to raise the issue of condom use prevailed among female migrant workers [8].

A significant proportion of young migrant population is engaging in behaviors that put them at high risk for HIV and other STIs. This issue is expected to grow in scope with the prospect of economic integration and free movement of labor promoted by the ASEAN.

This study suggests a need to seek innovative solutions for reducing the risk of HIV and other STIs among young migrants. These interventions need to be consistent with the cultural norms and value of the migrant groups, should address identified barriers to safer sex practices, and should promote strong involvement of key stakeholders including migrant groups, public health authorities, and NGOs, from the planning to the implementation phases of the interventions. Hiring and training educators who can speak native languages to promote safer sexual behaviors should be widely supported to cover every social group of young migrants. Mobile voluntary counselling and testing (MVCT) program in the communities or places where young migrants live or work should be conducted to provide easy access to the service among this group.

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REFERENCES

1. Office of Foreign Workers Administration. Statistics of migrant workers in the Kingdom of Thailand, August 2014. [cited 2014 Sep 10]. Available from: http://wp.doe.go.th/wp/images/statistic/sm/57/sm0857.pdf
2. Migrant workers in Thailand: the exodus; 2015 [cited 2015 Aug 25]. Available from: http://www.economist.com/news/asia/21604585-rumours-drive-hundreds-thousands-cambodians-back-home-exodus
3. Huguet J, Chamratrithirong A, Natali C. Thailand at a crossroads: challenges and opportunities in leveraging migration for development; 2012 [cited 2015 Jul 14]. Available from: http://publications.iom.int/bookstore/free/MPI_Issue6_10Oct2012_web.pdf
4. Asian Development Bank. ASEAN economic community: 12 things to know; 2015 [cited 2015 Jul 14]. Available from: http://www.adb.org/features/asean-economic-community-12-things-know
5. Srivanichakorn S. People's health in ASEAN: opportunities and challenges. Nakhonpathom: ASEAN Institute for Health Development, Mahidol University; 2012.
6. Chamratrithirong A, Boonchalaksi W, Chamchan C, Holumyong C, Apipornchaisakul K. Prevention of HIV/AIDS among migrant workers in Thailand 2 (PHAMIT 2): The baseline survey 2010. Nakhonpathom: Institute for Population and Social Research, Mahidol University; 2010.
7. Thanyaphon S. Social values and sexual risk behaviors among female adolescents [Dissertation]. Chiangmai: Chiang Mai University; 2005.

8. Yimyam S, Jariyalertsak C, Tiansawad S. The quality of life, health problems and reproductive health care behavior among female migrants. [Research report]. [N.p.]; 2009.
9. AIDS Tuberculosis and Sexually Transmitted Diseases Surveillance System Development Group, Bureau of epidemiology. Summary of AIDS patients and HIV infection situations in Thailand; 2012 [cited 2013 Sep 14]. Available from: http://www.boe.moph.go.th/report.php?cat=19&id=1268
10. Barmania S. Thailand's migrant sex workers struggle to access health care. Lancet. 2013 Aug; 382(9891): 493-4.
11. Htoo KM, Panza A. Factors associated with unsafe sex behaviors for prevention of HIV/AIDS transmission among Myanmar migrant fishermen in Ranong, Thailand. J Health Res. 2009; 23(Suppl): 43-7. [cited 2016 Mar 2]; Available from: http://www.jhealthres.org/upload/journal/293/23%28suppl%29_p43-47_kmalerhtoo.pdf
12. Mullany LC, Maung C, Beyrer C. HIV/AIDS knowledge, attitudes, and practices among Burmese migrant factory workers in Tak Province, Thailand. AIDS Care. 2003 Feb; 15(1): 63-70. doi: 10.1080/0954012021000039761
13. Htun NSN. HIV/AIDS risk behaviors among Myanmar migrants in Bangkok, Thailand. 2008 [cited 2016 Mar 02]. Available from: http://www.jhealthres.org/upload/journal/301/23%28suppl%29_p87-90_nan.pdf
14. Health Insurance Group, Office of Permanent Secretary, Ministry of Public Health. Notification of the ministry of public health on health check-up and health insurance for migrant workers. Nonthaburi: Office of Permanent Secretary; 2014.
15. Pinyosinwat T. PHAMIT: A program on HIV/AIDS prevention among migrant workers. Field Actions Science Reports [Internet]. 2009 [cited 2015 Jul 31]. Available from: http://Factsreports.revues.org/310
16. Huguet J, Chamratrithirong A. Thailand migration report 2011. 2011 [cited 2015 Jul 31]. Available from: www.un.or.th/wp-content/uploads/2013/12/TMR-2011.pdf
17. Office of Foreign Workers Administration. Situation of migrant workers. 2013 [cited 2014 Sep 14]. Available from: http://wp.doe.go.th/wp/images/statistic/sm/56/sm0156.pdf
18. National AIDS Committee. National AIDS Strategy for 2012-2016. Nonthaburi: The Agricultural Co-operative Federation of Thailand; 2012.
19. Archavanitkul K. The movement of Myanmar migrant workers and changes in attitudes towards migrant workers, stateless persons, and refugees in Thailand. ASEAN Workshop on Building the ASEAN Connectivity No. 2; 2013 October 26, Thai Journalists Association, Bangkok; 2013.
20. Yamane T. Statistics: an introductory analysis. 2nd ed. New York: Harper and Row; 1967.
21. Bureau of epidemiology. Surveillance survey on sexual behaviors related to HIV transmission among Thai students. 2011 [cited 2014 Sep 17]. Available from: http://www.boe.moph.go.th/files/report/20120501_1696357.pdf
22. Srivanichakorn S, Thepthien B, Wongsawass S, Tasee P. The behavioral surveillance survey of 7 target groups in Bangkok. Nakhonpathom: ASEAN Institute for Health Development; 2011.
23. Mekong Migration Network. Self-care and health care: how migrant women in the Greater Mekong Sub region take care of their health. 2015 [cited 2015 Jul 14]; Available from: http://www.mekongmigration.org/SelfCare%20and%20Health%20Care_final.pdf
24. Tangmunkongvorakul A, Carmichael G, Banwell C, Utomo ID, Sleigh A. Sexual perceptions and practices of young people in Northern Thailand. J Youth Stud. 2011 May; 14(3): 315-39. doi: 10.1080/13676261.2010.522562
25. Nitirat P. Truth about condom: main reasons against condom use among Thai adolescents. Journal of Phrapokklao Nursing College 2010; 22:60-71..