# Full Length Research Paper

# Determinants of contraceptive usage among Myanmar migrant women in Phang-Nga Province, Thailand

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Abstract

Since 2000, Myanmar migrant population has been dramatically increasing in Thailand. Many migrant people cannot have access to the primary health care, antenatal care nor family planning services. This study was done to determine the prevalence and determinants of contraceptive usage among Myanmar migrant women of reproductive age in Phang-Nga Province, Thailand. A total of 297 married women between 15-49 years old participated in this study. Face to face interview using a questionnaire was done after getting informed consent. The contraceptive prevalence rate was 80.1%, and the most preferred methods of contraception were injected and oral pills. Marital duration, education and number of living children were found to be significantly associated with usage of contraception. Moreover, this study highlighted the gap between knowledge and usage of contraception among Myanmar migrant married women. It was recommended that government and non-government organization should extend their services including supply as well as information to reach to the main need of the Myanmar migrant community.

Keywords: Determinants, contraception, migrant, women, Myanmar, Thailand.

## INTRODUCTION

Every year thousands of Myanmar people flee across the border to the neighboring countries especially to Thailand. This high cross-border migration flow from Myanmar into Thailand can be explained by many factors such as social, political and the economic push and pull factors (Labor Migration in the Greater Mekong Subregion, 2006). Since 2000, the migrant population is dramatically increasing in Thailand. Registered migrant population is 1,280,053, registered camp population is 120,853 and the estimated non-registered migrant population is more than 1 million. Women make a large

proportion of this migrant population, which comprises 48.32 per cent (Ministry of Public Health (MOH), WHO Thailand and Department of Disease Control, 2005).

Migration is another life course event that can have profound implications for sexual and reproductive health (World Health Organization (WHO), 2007). By and large, the migrant people are highly mobile and they move from the economically poor or less developed countries to the more developed countries due to severe economic hardship and conflict (IOM, 2005). Because of their tenuous legal status, barriers that limit access to health services are legal mechanisms, migration in all seasons to earn money for their survival, poor living conditions, language barrier, inability to afford health services, far distance to health care provider and imprisonment. For

Malaysia

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these reasons, they are not being able to receive knowledge of important health conditions especially family planning (World Vision Foundation Thailand (WVFT), 2007).

It was found that women working outside their country are extremely vulnerable to sexual abuse by their employers, human traffickers, local officials, or others. As a result of this situation, a number of young migrant women report of being pressurized to get married in order to have some protection against unwanted sexual advances from others (The situation of migrant workers, Facts on Human Right Violation in Burma, 2002-2003). In Thai-Myanmar border area, annual growth rate is 10.1% and the crude birth rate is 31.5 per thousand live births which are higher than both Thailand and Myanmar (CCSDPT, 2006). The rate of abortion in border area has increased from 39.29 per thousand live births in 2004 to 82.83 per thousand live births in 2006 (CCSDPT, 2006) which is 2.4 times higher than that of local Thai population (Belton and Maung, 2007). This highlights the limited knowledge about family planning, contraceptive usage and also unmet need of contraception in Myanmar migrant women (The Human Rights Sub-Committee on Ethnic Minorities, Stateless, Migrant Workers and Displaced Persons, The Lawyers Council of Thailand). Moreover, it is becoming a significant burden not only for these migrant women in terms of morbidity and mortality associated with short birth interval and unwanted pregnancy but also for the host country, Thailand (Belton and Maung, 2007).

The estimated registered Myanmar migrant population in Phang-Nga province in Thailand is 22,284 (IOM, 2005) and the non-registered migrant population is estimated to be as twice of this figure. Female comprise 33% and most of them (77.6%) are from reproductive age group. Even though 67.9% of Myanmar migrant workers in Phang-Nga were married (IOM, 2007), there was no baseline data on contraceptive usage by these Myanmar migrant. This study was done to determine the prevalence and determinants of contraceptive usage among Myanmar migrant women of reproductive age in Phang-Nga Province, Thailand.

#### **MATERIALS AND METHODS**

A Cross-sectional analytical study was done in Phang-Nga Province from January to February 2008. Major local economies are fishing industry and rubber farming which employ a large proportion of migrant laborers and they are also employed at construction sites, domestic helps and resorts (WVFT, 2007).

The sample size was calculated using the formula for single population proportion with the margin of error of 5%, assumption of 95% confidence level (Daniel, 2005) and the prevalence of contraceptive used among Myanmar migrant women in Thai-Myanmar border in

2006 (CCSDPT, 2006). The sample size required was 337. A multistage sampling technique was used to select the study participant. There are eight districts in Phang-Nga Province, and among them Takuapa District and Kuraburi District were selected purposively. The two districts were divided into sub-districts and one subdistrict from each district was randomly selected. After that, one village from each sub-district was selected. The reproductive age group (15-49 years) women who were married, residing in the selected village were included. The pregnant women and menopause were excluded in this study. If the sample from one selected village was not enough, another village was randomly selected until the required sample size was met. A total of 297 women completed the study. Participation was voluntary and written as well as verbal informed consent was taken from each respondent.

Data was collected in face to face interviews by using questionnaire. Four female staffs from a non government organization were trained for one day prior and guidelines were given for data collection. The questionnaire consisted of four parts such as socio-economic characteristics, knowledge and attitude regarding contraception, accessibility to health facilities and current usage of contraceptive method. The questionnaire was developed in English language and then translated into Burmese language. Pretest was done with 30 reproductive age group married Myanmar migrant women and reliability and validity were checked. The Cronbach's alpha coefficient was 0.7 and content and face validity were checked with experts.

Data was processed and analyzed using SPSS software. Regarding knowledge and attitude, scores were computed by taking the sum, and scores lower than 80% of the total score were considered as low or need to improve and the scores equal to or more than 80% were considered as high. After checking and coding questionnaire, data was entered two times and crosschecked to ensure the accuracy of the database. Then the fixed data was analyzed. Bar chart, pie graph, frequency, percentage, mean and standard deviation were described. In bivariate analysis, Chi-square test was used. Moreover, multivariate logistic regression model was also used to identify the determinants contraceptive usage. Odds ratio (OR) with its 95% confidence interval (CI) and P value were described. All tests were two-sided and the level of significance was set at 0.05.

All the study procedures were approved by Ethical Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University, Bangkok, Thailand.

#### **RESULTS**

A total of 297 reproductive age group married women

**Table 1.** Socio-economic characteristics of married Myanmar migrant women (n = 297).

Variables	Frequency (%)		
Age			
15 -19	18 (6.1)		
20 – 29	143 (48.1)		
30 – 39	89 (30.0)		
40 – 49	47 (15.8)		
Marital duration			
≤5 years	117 (39.4)		
6 - 10 years	71 (23.9)		
> 10 years	109 (36.7)		
Religion			
Buddhist	294 (99.0)		
Muslim + Christian	3 (1.0)		
Education			
Never went to school	13 (4.4)		
Primary education	167 (56.2)		
Secondary education	81 (27.3)		
Higher education	36 (12.1)		
Occupation			
Housewife	143 (48.1)		
Working women	154 (51.9)		
Monthly family income (Baht)			
≤ 5000	186 (62.6)		
> 5000	111 (37.4)		
Migrant status in Thailand			
Registered	96 (32.3)		
Unregistered	201 (67.7)		
Thai language skill			
Cannot communicate at all	102 (34.3)		
Can communicate to some extent	173 (58.2)		
Fluent in Thai language	22 (7.4)		
Number of living children			
0	63 (21.2)		
1 – 2	151 (50.8)		
≥ 3	83 (27.9)		

participated in this study and the response rate was 91.1%. Table 1 showed the background characteristics of the participants. The majority of the respondents (78.1%) were in the age group of 20 to 39 years, and 39.4% of them have been married for less than 5 years while 36.7% have been married for more than 10 years and the remaining 23.9% were between 6 to 10 years of marital duration. Almost all of the respondents (99%) proclaimed Buddhism as their religion. More than half of respondents (55.8%) had finished primary education and 51.9% of them were working in factories and construction sites. Many of them (62.6%) had total monthly family income less than 5000 Baht. Majority of the respondents (67.7%)

were unregistered migrant and a very few of them (7.4%) were fluent in Thai language. 78.7% of the women participating in this study had at least one child. (Table 1) The prevalence of contraceptive usage was 80.1% (Figure 1). Injectables and oral pills accounted for large proportion of methods of contraception used, 46.4% and 39.7% respectively. 8.4% of respondents used female sterilization. Traditional method such as calendar method and the withdrawal method were also used by 2.1% of the respondents (Figure 2). 91.9% of the women discussed family planning with their husband. Only 7.4% and 11.4% respectively, had high level knowledge and good attitude regarding contraceptive methods (Table 2).

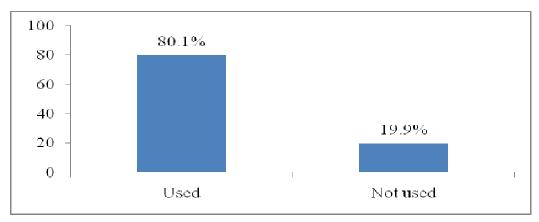


Figure 1. Contraceptive usage among married Myanmar migrant women (n=297).

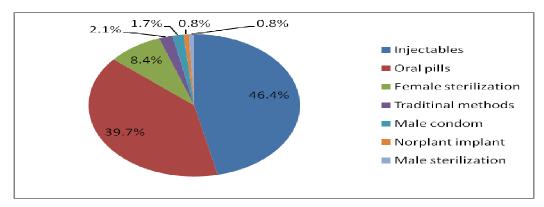


Figure 2. Contraceptive method used currently by married Myanmar migrant women (n = 239).

**Table 2.** Knowledge and Attitude regarding contraception among married Myanmar migrant women (n = 297).

Variables	Frequency (%)			
<b>Discussion with husband/partner</b> (n = 305)				
Yes	273 (91.9)			
No	24 (8.1)			
Level of knowledge				
High level	22 (7.4)			
Low level	275 (92.6)			
Level of attitude				
Good	34 (11.4)			
Need to improve	263 (88.6)			

Regarding accessibility to the services for contraception, 60.6% of the women relied on private clinics and drug stores. 16.7% had access through non-government organization and only 10.9% received contraception from government clinics. Majority of the women (84.5%) stated that they found it was convenient to access the health care services. 83.7% of them perceived that the expenses of contraception were affor-

dable and 90% were satisfied with the health care service that they received. (Table 3)

Table 4, 5 and 6 showed the multivariate logistic regression analysis showing the determinants of contraceptive usage among Myanmar migrant married women. In bivariate analysis, education and number of living children were significantly associated with current usage of contraception. After controlling the confounders

**Table 3.** Accessibility to the family planning service providers among current contraceptive users (n = 239).

Variables Frequency		
Service providers		
Private clinic	84 (35.1)	
Drug store	61 (25.5)	
NGO	40 (16.7)	
Government clinic	26 (10.9)	
Others	28 (11.7)	
Convenient to access		
Yes	202 (84.5)	
No	37 (15.5)	
Perception on expenses		
Not affordable	39 (16.3)	
Affordable	200 (83.7)	
Satisfaction with the service		
Yes	215 (90.0)	
No	24 (10.0)	

**Table 4.** The relationship between socio-economic characteristics and current usage of contraception among married Myanmar migrant women (n = 297).

Variables	Used contraception N (%)	Not used contraception N (%)	Crude OR (95% CI)	Adjusted OR (95% CI)
Age		. ,		
15 - 19	15 (83.3)	3 (16.7)	1 (Reference)	1 (Reference)
20 - 29	125 (87.4)	18 (12.6)	1.39 (0.29-5.87)¶	0.51 (0.06-4.08)
30 - 39	71 (79.8)	18 (20.2)	0.79 (0.16-3.38)¶	0.59 (0.54-6.52)
40 - 49	27 (57.4)	20 (42.6)	0.27 (0.05-1.2)	0.13 (0.01-1.73)
Marital duration				
≤5 years	101 (86.3)	16 (13.7)	1 (Reference)	1 (Reference)
6 - 10 years	59 (83.1)	12 (16.9)	0.78 (0.32-1.9)	0.05 (0.003-0.69)*
> 10 years	78 (71.6)	31 (28.4)	0.4 (0.19-0.82)	0.03 (0.002-0.59)*
Education				
Never went to school + Primary education	136 (75.6)	44 (24.4)	1 (Reference)	1 (Reference)
Secondary education	74 (91.4)	7 (8.6)	3.42 (1.39-8.78)**	10.17(1.47-70.17)*
High school level + Higher education	28 (77.8)	8 (22.2)	1.13 (0.45-2.92)	0.59 (0.14-2.46)
Occupation				
Housewife	119 (83.2)	24 (16.8)	1 (Reference)	1 (Reference)
Working women	119 (77.3)	35 (22.7)	0.69 (0.37-1.27)	0.72 (0.26-2.02)
Monthly family income	(Baht)			
≤ 5000	153 (82.3)	33 (17.7)	1 (Reference)	1 (Reference)
> 5000	85 (76.6)	26 (23.4)	0.71 (0.38-1.31)	0.61 (0.22-1.71)
Migrant status in Thaila	and			
Registered	75 (78.1)	21 (21.9)	0.83 (0.44-1.58)	0.95 (0.29-3.03)
Unregistered	163 (81.1)	38 (18.9)	1 (Reference)	1 (Reference)
Number of living childre	en			
0	41 (65.1)	22 (34.9)	1 (Reference)	1 (Reference)

Table 4 Cont.

1 – 2	134 (88.7)	17 (11.3)	4.23 (1.94-9.29)***	100.56 (7.49- 1350.03)**
≥ 3	63 (75.9)	20 (24.1)	1.69 (0.77-3.71)	90.12 (6.02- 1348.49)**
Thai language skill				
Cannot communicate at all	79 (77.5)	23 (22.5)	1 (Reference)	1 (Reference)
Can communicate to some extent	140 (80.9)	33 (19.1)	1.24 (0.65-2.34)	0.79 (0.27-2.34)
Fluent in Thai language	19 (86.4)	3 (13.6)	1.84 (0.46-8.62)¶	0.82 (0.11-6.24)

<sup>\* &</sup>lt;0.05, \*\* <0.01, \*\*\* <0.001; OR = Odds Ration; 95% CI = 95% Confidence Interval; ¶ Fisher Exact test

**Table 5.** Relationship between knowledge, attitude and current usage of contraception among married Myanmar migrant women (n = 297).

Variables	Used contraception N (%)	Not used contraception N (%)	Crude OR (95% CI)	Adjusted OR (95% CI)
Discuss family plan	ning with husband/ partner			
Yes	221 (81.0)	52 (19.0)	1.75 (0.62-4.78)¶	1.91 (0.47-7.87)
No	17 (70.8)	7 (29.2)	1 (Reference)	1 (Reference)
Knowledge level				
High level	18 (81.8)	4 (18.2)	1.13 (0.34-4.11)¶	0.39 (0.05-2.89)
Low level	220 (80.0)	55 (20.0)	1 (Reference)	1 (Reference)
Attitude level				
Good	31 (91.2)	3 (8.8)	2.8 (0.78-11.93)	4.43 (0.65-30.11)
Need to improve	207 (78.7)	56 (21.3)	1 (Reference)	1 (Reference)

<sup>\* &</sup>lt;0.05, \*\* <0.01, \*\*\* <0.001; OR = Odds Ration; 95% CI = 95% Confidence Interval; ¶ Fisher Exact test

**Table 6.** Relationship between respondents' accessibility and current usage of contraception among married Myanmar migrant women (n = 297).

Variables	Used contraception N (%)	Not used contraception N (%)	Crude OR (95% CI)	Adjusted OR (95% CI)
Convenient to acc	ess			
Yes	201 (88.9)	25 (11.1)	0.87 (0.2402.84)¶	0.51 (0.12-2.23)
No	37 (90.2)	4 (9.8)	1 (Reference)	1 (Reference)
Perception on cos	t	,	,	,
Affordable	199 (90.9)	20 (9.1)	2.3 (0.89-5.81)	2.52 (0.72-8.77)
Not affordable	39 (81.3) <sup>´</sup>	9 (18.8)	1 (Reference)	1 (Reference)
Satisfaction to the		,	,	,
Yes	214 (89.9)	24 (10.1)	1.86 (0.56-5.78)¶	1.11 (0.28-4.43)
No	24 (82.8)	5 (17.2)	1 (Reference)	1 (Reference)

<sup>\* &</sup>lt;0.05, \*\* <0.01, \*\*\* <0.001; OR = Odds Ration; 95% CI = 95% Confidence Interval; ¶ Fisher Exact test

in multivariate analysis, marital duration, education, and number of living children were significant associated with current usage of contraception. The women who had longer duration of marriage were significantly less likely to practice contraception currently. Regarding education, the women who completed secondary education were significantly more likely to practice contraception

compared to the women with lower education level. Moreover, the women who had 1-2 or more than 3 children were significantly more likely to use contraception compared to the women without children. Age, occupation, income, migrant status, Thai language skill, knowledge and attitude regards contraception, discussion with their husbands and accessibility to health

services were not significantly associated with the usage of contraception. (Table 4, 5 and 6)

# **DISCUSSION AND CONCLUSION**

Even though quite a lot number of Myanmar migrant workers in Phang-Nga were married (IOM, 2007), there was no baseline data on contraceptive usage by these migrant people. This study was done to determine the prevalence and determinants of contraceptive usage among Myanmar migrant married women of reproductive age residing in Phang-Nga Province. Contraceptive prevalence rate in this study was measured by calculating the percentage of married women in reproductive age of 15 - 49 years who were using contraceptive methods themselves or if it was being used by their husband or partner. The contraceptive prevalence rate was found to be 80.1% and it was noted that this was increased noticeably among Myanmar migrants in Thailand as it nearly reached to contraceptive prevalence rate of the host country, Thailand which was 81.1% in 2006 (National Statistic Office, Thailand). Contraceptive prevalence rate found in this study was more than double compared to the CPR in refugee camp in Myanmar-Thai border which had 32.4% in 2006 (CCSDPT, 2006) and also higher than home country, Myanmar in which contraceptive prevalence rate was 37% in 2001 (UN, 2005). It was found that injection was the most commonly used contraceptive method (Everett, 2004) followed by oral pills (WHO, 2007) (CCSDPT, 2006) and this may be due to convenience to usage and easy availability. Because of the legal status, most of them were reluctant to move around freely because of their illegal status in the country; injection was more popular than oral pill because of compliance as injection is only required once in three months. Moreover, oral pill are associated with complications such as nausea and dizziness. Inability to take regularly may also lead to discontinuation of the regiment and eventually pregnancy. The use of condom was low in this study which may be due to their negative attitude towards the condom use, as most of the husbands/partners did not like condom because of interference during sexual intercourse; however, more than half of them had knowledge about condom. Further study in exploring this may help understanding the beliefs and usefulness for family planning program.

Results of regression analysis revealed that contraceptive use was more pronounced for shorter marital duration which was consistent with the other studies (Wai, 1995; Dhananjay, 1997). Moreover, the number of living children is an important factor which can influence the decision making to use contraception (Panitchpakdi et al., 1993; Khouangvichit, 2002; Nguyen, 2003). This study found that the number of living children had significant positive effect on the contraceptive usage

as the use of contraception increased with increasing number of living children. It was possibly because the women who reached the desired family size use contraception to avoid pregnancy. However, the use declined slightly in women who had  $\geq$  3 children because they were older, less fertile or more likely to have secondary infertility (Schoemaker, 2005).

In this study, more than half of current users rely on private clinics and drug stores and only a quarter of them received contraceptives free of charge from a nongovernment organization or a government clinic. The perception of affordability with regards to cost is one factor which encourages the women to continue using contraception. In this study, majority of the women perceived that they contraceptives available were affordable. Many of the women had spent 100-150 Baht per month for contraception though they had monthly income as low as 800 Baht per month. This can be explained by Social-Exchange Theory (Chibucos, 2005) in which people weigh the potential benefits and risks of social relationships. When the risks outweigh the rewards. people will terminate or abandon that relationship since the purpose of this exchange is to maximize benefits and minimize costs (Chibucos, 2005).

The migrants from Myanmar tend to be less educated and less literate than their counterpart population of origin (Labor Migration in the Greater Mekong Sub-region, 2006), more than half of the respondents in this study had primary education and 27.3% had secondary education. Generally, education is recognized as an important factor in their learning about family planning. which may lead to delayed marriage and demand for fewer children. The educated women are expected to use more contraception as they desire fewer children compared with illiterate women (Parveen, 2000; Tehrani et al., 2001; Helweldery, 2004). In this study, the women who had secondary education were significantly more likely to use contraception compared to the women who had lower education level, however, this association was not significant for the women with higher education level.

Knowledge and use of contraceptives are the most fundamental indicators which are frequently used by national and international organizations to assess the success of family planning programs (Bertrand JT, 1994). Though there was lack of association between knowledge about contraception and use of it, majority of women had low level of knowledge regarding benefits, uses and side effects of contraception. This finding highlighted the gap between knowledge and usage of contraception; therefore, it supports the need for providing adequate information about variety of contraceptive methods to this community.

Since this study was limited by the time constraint, the quantitative variables that were thought to affect the use of contraception among married Myanmar migrant women were chosen. Qualitative research should be carried out in order to have in-depth knowledge about the

cultural beliefs and social norms and their effects on contraception usage.

### **Competing Interests**

The authors declare that they have no competing interest.

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