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**ABSTRACT:** This study was aim to examine the factors that determine upon alcohol consumption pattern with drinking consequences among male adult Myanmar migrant workers in Ratchaburi Province, Thailand. Using multi-stage sampling methods, a structured interview questionnaire type was conducted among 347 respondents in March 2012. The result revealed that current drinking behavior was in existence at 73.8% among male migrant workers. Alcohol abuse consumption was behaved by 58.2% of current drinkers. Approximately 63.3% of migrant drinkers consumed more than once a week while 8% of respondents drank white spirit daily. The migrants classified as alcohol-related problematic consequences according to Michigan Alcoholism Screening Test scores were 21.48% of current drinkers. Heavy drinking behavior with consequences were associated with increasing in age, especially in married and divorced marital status, more durable in length of migration and fluently in language skill ability.

Keywords: alcohol, male adult, migrant workers, determinant of alcohol, drinking consequences

### **INTRODUCTION**

Given the significance of alcohol consumption to health, the harmful use of alcohol is a major global contributing factor to death and disease problems which compromise both individual and social development. Worldwide, about 11.5% of drinkers have weekly heavy episodic drinking occasions, with men outnumbering women by four to one. Men consistently engage in hazardous drinking at much higher levels than women in all regions [1]. From overall statistical results dominate the alcohol to become the world's third largest risk factor for premature mortality and loss of health; also causes harm far beyond the physical and psychological health of the drinker. Thus, this impact of the harmful use of alcohol reaches deep into both individual and society [2].

Historically migration has been a fact of life by giving various reasons and often complex. While wage differences are important incentives, access to higher levels of health and education services, more personal security and general sense of life can also be important elements affecting the decision to work abroad [3]. In 2006, an integral part of the Thai economy with demand for cheap labor exceeding supply was Myanmar migrant workers.

Wide range of serious problems that Myanmar migrants face in everyday life include: very harsh working condition, low income, heavy indebtedness, risk of being human trafficking victim, harassment by police and military (especially of sex workers), high risk of illness, limited access to affordable medical services and a poor educational environment [4]. Overall disability health determinant conditions among migrant population, the increasing the risk taking behavior occur progressively. A study among Myanmar migrants in Samut Sakhon Province, Thailand reported that about 21.5% were current smokers, 25.4% were alcohol drinkers, and 36.7% were physically inactive correspondingly and harmful use of alcohol was the second most common problem [5]. Influence of surrounding environment pursues these migrant into risk taking behavior and poor circumstances in knowledge may support to worsen them. Despite known links between alcohol abuse and issues of health, poverty, and violence, little concentrated action has been directed towards vulnerable migrant populations. This is not due to a lack of capability. An inexhaustible list of NGOs and agencies have long been working with migrant groups on related issues, yet remarkably few organizations include alcohol education or rehabilitation among their list of programs. This gap represents an unfortunate missed opportunity [6].

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 Table 1
 Socio-Demographic Characteristic

Socio-Demographic Characteristic	Frequency	Percentage
Age (Years)		
18-29 years	201	57.93
30-39 years	106	30.55
40-49 years	33	9.51
50-59 years	7	2.02
Marital Status		
Single	147	42.36
Married	175	50.43
Divorced & other	25	7.20
Duration of Stay in Thailand		
≤3 years	117	33.72
3-6 years	89	25.65
>6 years	141	40.63
Language abilities		
Can't speak Thai	43	12.39
Can speak Thai language basically	170	48.99
Fluently (Speak/ Read & Write)	134	38.62
Job Difficulties		
Easily to do	181	52.46
Difficult ( a little)	103	29.86
Difficultly to do	61	17.68

This study will provide a basis for understanding the factors that determine alcohol drinking pattern with its consequences among Myanmar migrant workers realm.

### MATERIAL AND METHODS

The data for this study was collected from 347 male adult Myanmar migrant workers resided in Ratchaburi province, Thailand. Due to great mobility of Myanmar migrant workers, multistage sampling method was used. Firstly, purposive sampling was used from provincial to target district level; secondly, simple random sampling was used for selecting of sub district factories; recruitment for participants was done as census sampling and finally by using chain sampling, most subjects has been enrolled at their residential places. Cross sectional study was conducted in the face to face structured interviewed questionnaire. The tools for research accessing the objectives were adapted from image using pattern assessments and WHO recommended Alcohol Use Disorders Identification Test (AUDIT) to identify persons with hazardous and harmful patterns of alcohol consumption [7]. Drinking consequence concerned with not only health but also other social, familial, personal, job and economic effects under the influence of alcohol. Therefore in this study, Michigan Alcoholism Screening Test (MAST) is used as the purpose of consequences which is the most oldest and accurate alcohol screening test consisting of self-appraisal, familial, vocational and social problems associated with excessive drinking [8]. In this study, the modified MAST test (22 questions out of original 25 questions) was used when referring to within past one year period. It is divided into 2 categories: scores less than 5 points are regarded as low risk of existing alcohol-related consequences and scores more than 6 points as apparently existing the alcohol-related consequences within past one year [9]. Amount of alcohol consumption is calculated back into standard drinking unit by using 10 g of pure alcohol [10] and is measured as drinking unit per single occasion. Participants were informed about the general nature of the study; signed informed consents and were assured of information confidentiality.

### RESULTS

After reviewing from total participants 347, the result was found that most of the male participants more than half (57.9%) were young adult group age between18-29. The respondents marital status were said to be more proportion married than unmarried situation; (50.43%) and (42.36%) respectively. The participants those migrated to Thailand in periods of more than 6 years were 40.63%. The length of stay was range from 3 months to 34 years. Concerning with the Thai language ability, nearly half of the respondents (48.99%) could speak basically. Regarding to difficulties during working, over half migrant workers could easily manipulate their jobs (52.46%) undoubtedly (Table 1).

Characteristic	Frequency	Percentage	
Type of alcohol drinking within past one years (multiple response) $N=256$			
Beer	184	71.90	
White Spirit	94	36.70	
Whiskey	45	17.60	
Home Brew	25	9.80	
Rum/Gin/Wine	12	4.70	
Spend money on Alcohol per monthly Income <sup>©</sup>			
Less than 5% of income	86	33.86	
5% to 10%	56	22.05	
10% to 20%	62	24.41	
20% to 30%	25	9.84	
30% to 40%	12	4.72	
More than 40%	13	5.12	
Mean= 13.22% Median= 8.73% SD= 13.65% Range= 0%- 94%			
Amount of alcohol consumption (N=256)			
Less than 5 standard drink	107	41.80	
$\geq$ 5 standard drink	149	58.20	
AUDIT Classification			
Low Risk (0-7)	126	49.22	
Hazardous Drink (8-15)	92	35.94	
Harmful Drink (16-19)	17	6.64	
Alcohol Dependent (20-40)	21	8.20	
MAST score for consequences			
Low Consequences (<6)	201	78.52	
Consequences ( $\geq 6$ )	55	21.48	

<sup>©</sup> Exclude no Job position (n=2)

Out of total 347 respondents, those who experienced alcohols drinking in their whole lives were 302(87.0%) and never introduced alcohol was 13.0%. Among alcohol experienced respondents, current drinkers who drank within past 12 months were 256 respondents (84.76%) and former drinkers who experienced alcohol beverage more than one year were 46 respondents (13.3%).

In Table 2 compares the types of beverage: beer was predominantly enjoyed by 71.90% of the drinkers while (36.70%) of them drank white spirit specifically (Lao Kao). Other remarkably consumed types of alcohol were whiskey and home brew (Yadong) for 17.60% and 9.80% respectively. Among current drinkers who had job position, 34% of them spent money on alcohol less than 5 % of their monthly income. Notwithstanding, (5%) of drinkers used more than 40 % of their income on alcohol consumption. Their expenditures on alcohol per monthly income were range from 0 to 94%. Regarding the quantity of drinking, 58.2% of participants binged heavily alcohol more than 5 standard drinks per single occasion. The minimum amount of consumed alcohol was 1 standard drink which ranged to maximum 47.20 standard drinks. Approximately 63.3% of migrant drinkers consumed alcohol more than once a week. Beer was consumed by respondents for one to 2 times a week (20.3%) followed by 2-3 times a month (16.8%), whiskey was consumed by 6.2% of respondents once a month frequently. In addition, the white spirit type of beverage was consumed 3 to 4 times a week for 9.4% while nearly 8.0% of drinkers took white spirit almost daily. Respondents drank home brew even less than once a month for 2.3%.

Concerning the four categories based on the AUDIT score, almost half of the respondents (49.22%) were in "low risk category" which referred to drinkers who drank less than 2 standard drinks. Among all current drinkers, one third of them were hazardous drinkers (35.94%) taking between 4-6 standard drink. One out of ten was considered as a harmful drinker and alcohol dependent for 6.64% and 8.20% respectively. This meant an excessive drinking together with cluster of behavioral, cognitive and physiological phenomena. In regards to the alcohol consequences within past one year among the respondents, 21.48% of them were considered developing alcohol-related consequences according to MAST score which ranged from at least 0 to maximum of 15 scores with the mean of approximate 4.

In Table 3, excessive drinking ( $\geq$  5 standard drinks) were in a higher proportion than less amount of drink (< 5 standard drinks) with increasing in each age groups; 61.3% in age 26-35 and 72.3% in age

	Amount of alcohol consumption			MAST score consequences				
<u></u>	<5 SD**	≥5 SD**			Low Conq	Conq		
Characteristic	n=107	n=149	$\chi^2$	p-value	n=201	n=55	$\chi^2$	p-value
-	n(%)	n(%)	-		n(%)	n(%)		
Age			7.88	0.02			7.53	0.02
$\leq$ 25 years	54(50.9)	52(49.1)			92(86.8)	14(13.2)		
26 To 35 Years	41(38.7)	65(61.3)			78(73.6)	28(26.4)		
>35 years	12(27.3)	32(72.3)			31(70.5)	13(29.5)		
Marital Status			3.05	0.22			10.19	0.05
Single	49(46.7)	56(53.3)			90(85.7)	15(14.3)	Fis	sher's
Married	52(40.3)	77(59.7)			99(76.7)	30(23.3)	Exac	t value
Divorced and widow	6(27.3)	16(72.7)			12(54.5)	10(45.5)		
Duration of Stay in Thailand			14.52	< 0.01			11.15	< 0.001
Lower than 5 years	71(53.0)	63(47.0)			116(86.6)	18(13.4)		
5 to 10 years	23(28.8)	57(71.2)			57(71.2)	23(28.8)		
More than 10 years	13(31.0)	29(69.0)			28(66.7)	14(33.3)		
Language Skill(Thai)			8.6	0.65			8.4	0.02
Can't	18(48.6)	19(51.4)			32(86.5)	5(13.5)		
Can (a little)	49(40.2)	73(59.8)			102(83.6)	20(16.4)		
Fluently speaking + (Read	40(41.2)	57(58.8)			67(69.1)	30(30.9)		
and Write)								
Education			5.01	0.08			0.66	0.72
Illiterate; Primary	36(34.3)	69(65.7)			81(77.1)	24(22.9)		
Middle School	40(44.0)	51(56.0)			74(81.3)	17(18.7)		
High school and over	31(51.7)	29(48.3)			46(76.7)	14(23.3)		
Work Holidays per month <sup>©</sup>			1.31	0.717			0.06	0.8
Less than 4 days	30(40.0)	45(60.0)			58(77.3)	17(22.7)		
$\geq$ 4 days	76(42.5)	103(57.5)			141(78.8)	38(21.2)		
Job Difficulty <sup>©</sup>			2.13	0.345			2.45	0.29
Easily to do	61(45.2)	74(54.8)			107(79.3)	28(20.7)		
Moderately to do	25(34.7)	47(65.3)			59(81.9)	13(18.1)		
Difficultly to do	20(42.6)	27(57.4)			33(70.2)	14(29.8)		
Parent History	. *		2.31	0.13			3.11	0.078
No	62(46.3)	72(53.7)			111(82.8)	23(17.2)		
Yes	45(36.9)	77(63.1)			90(73.8)	32(26.2)		
**SD- standard drink [10]. <sup>©</sup> Ex	1 1 1 1	•.• /	2)					

Table 3 Relationship between variables of interest and amount of alcohol with consequences

\*\*SD= standard drink [10]; <sup>©</sup> Exclude no Job position (n=2)

more than 35 years. The analysis found that the older the age, higher the proportion of consequences of gradual consequence outcomes.

Although no statistical significant difference was between marital status and amount of alcohol consumption (p=0.22), 72.7% of divorced statuses were heavy drinking. But for the development of alcohol-related outcomes, there was statically significant association (p=0.05) and divorced persons were more situated in highly consequences comparing with other marital status.

When emphasizing upon the analysis of association between length of stay in Thailand and amount of alcohol, it was found highly significant (p<0.001) and as far as duration of stay was taken longer, the percentage of heavy drinking was higher significantly and it also rendered the higher proportion of high alcohol-related consequences than low consequences (28.8% in 5 to 10 years, 33.3% in more than 10 years, respectively). In respect of Thai language skills, 49% of respondents could speak basically. Although excessive drinking character was not associated with Thai language ability (*p*-value= 0.65), the vulnerable outcomes for alcohol-related problematic situation were statistically significant associated with that skill (*p-value*=0.02). The chance of getting to alcohol-related problematic stage was more vulnerable in those who couldn't speak Thai language comparing to those who with high language proficiency. All in all, according to alcohol related consequences were determined by using the MAST scores which measured the alcohol related personal behavior; family, job-related and social consequences associated with amount of drinking.

#### DISCUSSION

The current drinking situation prevailed

Table 4 Reason for abstaining

Reasons for Quitted/stopped Alcohol (n=99)	Frequency	Percentage	
Health Reason(illness time, Doctor's advice)	27	27.27	
Avoid Buddhist Lent	17	17.17	
Family Reason (Pressure, love, Scold)	12	12.12	
Didn't wish to continue drinking by himself(Boring)	8	8.08	
Religious reason (During period of Monk/Meditation, commitment)	6	6.06	
Marriage Reason	5	5.05	
Other various reasons	24	24.24	

approximately 73.8% among Myanmar adult male migrants. Forty-one point four percent of current drinkers were occupied by the young adult age between 18 and 25 years which was increased in nature comparing with pervious Khinge's study stating that 35% of alcohol prevalence existed among those young migrant workers [11]. Reviewing the overall age of respondents, adulthood is considered as drinkers of high volume of alcohol and appeared to be problemic consequences. This is in line with the finding of a study conducted in Japanese [12]. For the association between alcohol-related consequences, married and divorced men were more vulnerable to develop alcoholic problematic stages than those with single status due to social pressure, economic stress, familial condition and so forth. It is in contrast to one of previous study regarding the fact that married condition was associated with low volume of alcohol consumption and those who were divorced had the highest consumption level [13]. This study revealed that the longer the duration of stay, the higher the chance of excessive drinking and alcohol-related consequences because the migrants were felt as though they were free from migration-related impacts and could adapt to Thai culture and local societies. This study was in opposite to one study stated that hazardous/harmful drinking was associated consistently with late migration and alcohol problems (OR = 1.5) [14]. The chance of getting alcohol-related problematic stage was more vulnerable in those who could speak Thai language fluently comparing with weakness in language abilities. Migrant language difficulties was inconsistent with the report of Oh [15] which stated that Hispanic were at gerater odds of adherence to multiple behaviors compared to Non-Hispanic migrants (OR=2.76).

Among the respondents who had alcohol experiences, 32.0% of them were happened to quit or stop alcohol drinking for a while due to certain causes. The main reason for quitting was health reasons (27.27%) in detail prescription as during illness episodes according to doctor's advice.

Seventeen percent of them could quit during Buddhist Lent periods. Remarkably, twelve percent of them quitted according to their family such as affection to wife and children; and peer pressure. With the purpose of getting general knowledge about the alcohol and its related conditions, migrant societies were commonly workers and they usually not familiar with education and intervention program related to alcohol (Table 4).

### RECOMMENDATION

Being baseline information for further studies, the control assessments and preventive measures for alcoholic behavior ought to be considered and established due to high prevalence of hazardous drinking behaviors among cavalier migrant workers realm. To be an efficacy in control measure, host country should incorporate the migrant's interest groups/organizations, local community authorities, employer-related groups as well as migrant workers themselves including their kin support. The existing alcohol control act and some local interventions (Reduction during Buddhist Lent Campaign) set among Thai nationalities should also be promoted among migrant workers atmosphere. The settlement of alcohol band on the religious important days should be introduced in all Buddhism dominant countries. This will be in accordance with universally recommended alcohol reduction strategies only to the extent that there is a missing on the vulnerable migrant groups.

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