The Influence of Health Literacy, Social Capital and Health Status on Quality of Life of Laotian Migrant Workers in the Northeast of Thailand

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ABSTRACT

Background

Thailand has been a key destination country for labor migrants from Lao PDR due to its higher economic development level.

Objective

To determine the level of quality of life as well as influence of health literacy, social capital and health status on quality of life of Laotian migrant workers in the Northeast of Thailand.

Method

This cross sectional study was conducted among 1,477 Laotian migrant workers. The multistage random sampling method was applied to select the study respondents from eight provinces of the Northeast of Thailand. A structured questionnaire interview was applied to collect required information. A generalized linear mixed model was performed to identify the influence of health literacy, social capital and health status on quality of life of Laotian migrant workers in the Northeast of Thailand.

Result

Among the total of 1,477 Laotian migrant workers, 37.78% (95% CI: 35.30-40.31) of the respondents had good quality of life while 61.1% (95% CI: 58.59-63.63) had fair level of quality of life. Factors that were significantly associated with having good quality of life of Laotian migrant workers were; had high level of social capital (adj. OR=3.55;95% CI: 2.62-4.83), high level of health literacy on access to health information, communication skills, self-management, media literacy and decision making skills literacy (adj. OR= 2.33;95% CI: 1.69-3.23), high level of cognitive health literacy (adj.OR=1.77; 95% CI:1.28-2.45), low to moderate levels of stress (adj. OR=2.12;95% CI:1.49-3.02), not depressed (adj. OR=4.05;95% CI:1.96-8.41) and physically healthy (adj.OR=1.71;95% CI:1.12-2.62). Other significant covariates were socioeconomic status including family size, accommodation, financial status, and migration conditions.

Conclusion

More than one-third of Laotian migrant had good quality of life. Quality of life was better among those with high social capital, high level of health literacy, good mental and physical health status, better socioeconomic status, and proper migration conditions.

KEY WORDS

Health literacy, Health status, Laotian migrant workers, Social capital, Quality of life

INTRODUCTION

Thailand is one of the landing place in Southeast Asia for labor migrations. In 2018, Thailand hosted nearly 3.9 million migrant workers from neighboring countries with a substantial increased from 2.7 million in 2014.[1,2] Most of them were from Myanmar, Loa PDR, Cambodia and Vietnam respectively.[1] Migrant workers were mostly involved in a 3-ds job; dirty, dangerous and demeaning, that have adverse impact on their health, wellbeing and quality of life.[3,4] Quality of life (QOL) is commonly used to assess well-being among various susceptible populations, such as migrants, refugees.[5-7] Since QOL is a level of individual life's happiness where they live in societies and achieve their goal in life which consists multidimensional of physical, psychological, social relationships, as well as environmental domains.[8,9] Several studies identify that the various factors have influences on QOL such as social capital (SC).[10] SC concerns social networks and connections that the persons and communities have formed networks and connections.[11-14] In addition, some studies observed that QOL had a positive association with health literacy as well (HL).[17,18] HL is linked to literacy and entails people's knowledge, motivation and competence to access, understand, appraise, and apply health information to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve QOL during the life span.[19,20] Furthermore, psychological working environment and living environment have associated with low to medium level of quality of life in difference of occupations in Thailand.[5,15,16] Studies on adult garment migrant workers in Bangladesh, health related difficulties in France, rural to urban female migrant factory workers in China, stress of social relationship among Burmese domestic female workers in Singapore, observed an association between mental health problems which affect the QOL.[18,21-27]

Agricultural workers have frequently reported work-related injury and several health problems related to their occupation which was related to stress anddepression.[28,29] Moreover, nearly one-thirds of Cambodian farm workers in eastern Thailand reported occupational injury (back pain/joint pain) where most of them had limited access to health care services which might be led to decrease quality of life.[30]

Therefore, this study was conducted to determine the level of quality of life as well as influence of health literacy, social capital and health status on quality of life of Laotian migrant workers in the Northeast of Thailand.

METHODS

The study was conducted in the Northeast of Thailand in 2019. An analytical cross-sectional study was conducted by administering a structured questionnaire interview amongst Laotian migrant workers.

Human Ethical permission for the study was obtained from the Ethics Committee in Human Research of Khon Kaen University, Khon Kaen, Thailand (HE622021).

The sample size of 1,477 was calculated by using the sample size estimation formula for multivariable logistic regression (n= [P (1-P) (Z1-α +Z1-β) 2 / B (1-B) (P0-P1)2 * 1/ (1-P) 2]) to detect factors associated with quality of life among Laotian migrant.[31] The required proportions for the sample size calculation were obtained from a previous study conducted in China.[13] The Laotian migrant workers aged 18 years old or more, who had been working in the Northeast of Thailand were included. However, critically ill patients were excluded from the study. The multistage random sampling procedure was applied to select respondents from 8 provinces of the region namely Khon Kaen, Roi Et, Bueng Kan, Nong Bua Lam Phu, Nakhon Ratchasima, Buri Ram, Ubon Ratchathani and Mukdahan provinces. The respondents were selected from each province proportional to size of the Laotian migrant population.

A structured questionnaire interview was used to collect the study data. The questionnaire assessed socio-demographic, migration and working conditions, living conditions, social capital, health literacy, health behaviours, physical health status, stress, and depression. The WHOQOL BRIF with was translation into Lao language was used to assessed the QOL of the Laotian migrant. WHOQOL BRIF comprises of 26 items which are divided into four domains (Physical, Psychological, Social and Environmental), All items are rated on a 5-point scale, Raw scores were categorized into three groups Scores ranging from 26 to 60 would considered low level QOL, from 61 to 95 would considered moderate level QOL, from 96 to 130 world considered high level QOL finally group as two which (poor/good QOL). The tool was tested by 5 experts for content validity. The toll had good reliability with Cronbach's alpha coefficient of the tool of 0.87.

Data were entered in Epi-Data (Version 3.1) and transferred to STATA 10.0 (StataCorp, College Station, TX) for analysis. The categorical data were reported as number and percentage. Mean, standard deviation, median and range (minimum: maximum) was described for the continuous variable. In an analysis to identify the factors associated with QOL of Laotian migrant workers that could control the clustering effect. We used their residency of 16 provinces in Lao PDR as a variable in the random effects equations of the generalized linear mixed model (GLMM). The analysis started with a bivariate analysis for each independent variable with the QOL, set p-value for entry (Pe)<0.25 , p-value for remove (Pr) > Pe to select potential significant variable into the initial multivariable analysis model.[32] In the multivariable analysis the association between each independent variable with the QOL when controlling the effect of other variables were determined by a backward elimination technique and goodness of fit of the final model presenting adjusted OR (adj. OR) and 95%CI, with P< 0.05 (α =0.05).

RESULTS

A total of 1477 Laotian migrant workers were randomly enrolled from 8 provinces of the Northeast of Thailand. More than half of them were male with the mean age of 31.9 ± 10.1 years old, the highest proportion of the respondents were between 20-29 years of age group (45.80%) (Table 1). Nearly one fifth (18.5%) of the study population had no formal education while 36.8% of them were finished elementary school. Mostly of them had been working in Thailand for two to three times. Nearly all of them were living in Thailand since less than one year. Almost all used the bus as the mode of travelling to Thailand. More than 70% of them had work permit which allow them to work in Thailand. The average of 6 days in a week is considered as working day for them. Moreover, the main reason for working in Thailand had three importance reasons; hardship in living condition in their own country, there were higher income then their own country and better living condition in Thailand. About 70% had proper document for trans-border and only about 70% had work permit. Most of them were smoker and drank alcohol. About three-quarter of them were not participate in any forms of exercise. More than one third of the study population had overweight and obesity. Among them 20 percent were ill. Majority of them never got health education.

Table 1. Demographic - socioeconomic, migration conditions, living and working conditions, health behaviours, physical health status and health service utilization of Laotian Migrants Workers in the Northeast of Thailand (n=1,477).

Characteristics	Number	Percent
Gender		
Female	783	53.0
Men	694	47.0
Age (year)		
< 20	81	5.5
20 – 29	677	45.8
30 – 29	386	26.1
40 – 49	231	15.7
50 – 59	74	5.0
≥ 60	28	1.9
Mean ± SD	31.9 ±10.01	
Median (Min :Max)	29 (18: 60)	
Marital status		
Single	552	37.4
Married	817	55.3
Windowed	53	3.6
Divorced/ Separated	55	3.7
Education		
No formal education	273	18.5
Elementary school	544	36.8
Junior school	317	21.5
High school	342	23.1
Vocational certificate or higher	1	0.1
Number of household members (persons)		
1	34	2.3
2 – 3	467	31.6
4 – 5	732	49.6
≥ 6	244	16.5
Mean ± SD	4.2 ±1.68	
Median (Min :Max)	4 (1: 13)	
Duration of being in Thailand during previous visit (Year)		
Never	578	39.1
Were in Thailand for (Times)	899	60.9
≤ 1	241	16.3
2 – 4	384	26.0
≥ 5	274	18.6
Mean ± SD	3.4 ±4.32	
Median (Min :Max)	2 (1: 40)	
Duration of living in Thailand this time (Years)		
≤ 1	1,328	89.9
2 – 4	68	4.6
≥ 5	81	5.5
Document for trans-border		
Passport with visa	578	39.1
Passport	505	34.2
Border Pass	336	22.8
No Documents	58	3.9
Work permit		
No	438	29.6
Have work permit	1,039	70.4
Self-expense	568	38.5
Paid by employer	467	31.6
Shared with employer by half	4	0.3
Average working hours (Hours/Day)		
≤ 4	41	2.8
5 – 8	1,065	72.1
> 8	371	25.1
Mean ± SD	8.2 ±1.52	
Median (Min :Max)	8 (2: 14)	
Accommodation in Thailand		
House or room arranged by employer	890	60.3
Rental house or room	370	25.1
House of relative	209	14.1
Other	8	0.5
Residential area		
Rural	785	53.2
Urban	692	46.8
Number of family member (Persons)		
1	150	10.2
2 – 3	773	52.3
≥ 4	554	37.5
Mean ± SD	3.1 (±1.55)	
Median (Min :Max)	3 (1: 15)	

Financial status		
Adequacy with saving	760	51.5
Adequacy without saving	466	31.5
Inadequate	192	13.0
Inadequate with debt	59	4.0
BMI (kg/m²)		
Underweight (< 18.5)	99	6.7
Normal (18.5 – 22.9)	933	63.2
Overweight (23 -24.9)	261	17.7
Obese (≥ 25)	184	12.4
Mean ± SD	22.0±2.87	
Median (Min :Max)	21.6 (11.5: 40.8)	
Health status		
Healthy	1,205	81.6
Mild illness	207	14.0
Moderately ill	62	4.2
Severely ill	3	0.2
Recreation (Day/week)		
No	275	19.0
1	1,027	70.9
2	112	7.7
≥ 3	35	2.4
Mean ± SD	1.0 ± 0.97	
Median (Min :Max)	1 (0: 7)	
Smoking		
No	304	20.6
Yes	1,173	79.4
Alcohol Consumption		
No	458	31.0
Yes	1,019	69.0
Acute disease during the past 3 months		
No	1,222	82.7
Yes	255	17.3
Disease group		
Respiratory tract	108	7.3
Gastro intestinal	88	6.0
Urinary tract	12	0.8
Musculoskeletal	38	2.6
Accident	9	0.6
Chronic diseases		
No	1,287	87.1
Yes	190	12.9
Received health promotion service		
No	818	55.4
Yes	659	44.6
Health care facility		
Sub district health promoting hospital	289	19.6
Community, general, and regional hospitals	314	21.3
Private clinic, hospital	53	3.6
Other	3	0.2
Health insurance		
No	584	39.5
Yes	893	60.5
Type of health insurance		
Health insurance for migrant workers	725	49.1
Private health insurance	38	2.6
Employer pay for treatment	110	7.5
Other	20	1.4

Table 2 describe the social capital health literacy and mental health status of the Laotian migrant workers in the northeast of Thailand. Almost 50% of them had average level of social capital whereas about 30% had high level of social capital. Cognitive health literacy among Laotian migrant workers was mostly in the average to high levels. Moreover, health literacy in accessing to health information, communication skills, self-management, media literacy, decision making skills and self- management skills were in the moderate to high levels. Almost 90% of them no depression and had low level of stress.

Table 2. Social capital, health literacy and mental health status of the Laotian migrant workers in the Northeast of Thailand (n=1477)

Factors	Number	Percent
Social capital		
High level (183-250 score)	529	35.8
Average level (117-182 score)	824	55.8
Low level (50-116 score)	124	8.4
Health literacy : Cognitive (level of knowledge and understanding on health care)		
High (12-15 scores)	486	32.9
Average (9-11 scores)	739	50.0
Low level (0-8 scores)	252	17.1
Health literacy : level of access to health information, communication skills, self-management, media literacy, decision making skills and self-management skills		
High (141-188 scores)	356	24.1
Moderate (94-140 scores)	1,015	68.7
Low (47-93 scores)	106	7.2
Stress		
High (73-100 scores)	28	1.9
Moderate (47-72 scores)	337	22.8
Low (20-46 scores)	1,112	75.3
Depression		
High (≥ 19 score)	3	0.2
Moderate (13-18score)	22	1.5
Low (7-12score)	107	7.2
No (<7 score)	1,345	91.1

More than one-third of the respondents had good level of QOL while most of them had moderate level of QOL. Only about one percent perceived of having poor QOL (Table 3).

Table 3. Number and percentage of quality of life (QOL) of Laotian Migrants Workers in the Northeast of Thailand (n=1,477).

QOL	Number	Percent	95%CI
Poor level (26-60 scores)	16	1.1	0.62-1.75
Moderate level (61-95 scores)	903	61.1	58.59-63.63
Good level (96-130 scores)	558	37.8	35.29-40.31

The association between independent variables and good quality of life in bivariate analysis (Table 4). The simple logistic regression was use for bivariate analysis which was performed to identify the association between each independent factor and good quality of life. Factors that had potential of association with the good quality of life (p value < 0.25) were: social capital, health literacy, stress, depression, number of household members (people), type of domicile, number of times working in Thailand, duration of being in Thailand during previous visit (Year), route of traveling to Thailand, document for trans-border,work permit, average working hours (Hours/Day), main reasons for working in Thailand, accommodation, number of person live in one room (include the respondent), monthly income (baht), number of family member (Person), financial status, health status, average daily sleeping hours (Hours/Day), recreation (Day/week), health Service. These factors were proceeded to the multivariable analysis base on their p-value of less than 0.25.

Table 4. Crude odds ratio obtained from bivariate analysis of each independent factor and quality of life of Laotian migrant workers in the Northeast of Thailand (n=1,477).

Factors	Number	%Good QOL	Crude OR.	95% CI	p-value
Social capital					<0.001
Low – Moderate	948	26.5	1	1	
High	529	57.8	3.78	3.02-4.74	
Health literacy					
Cognitive					<0.001
Low – Moderate	991	33.1	1	1	
High	486	47.3	1.81	1.45-2.26	
Access to health information, Communication skill, Self-management Media literacy and Decision skill					<0.001
Low – Moderate	1,121	34.6	1	1	
High	356	47.7	1.72	1.35-2.19	
Stress					<0.001
High	365	24.9	1	1	
Low – Moderate	1,112	42.0	2.18	1.67-2.84	
Depression					<0.001
Low – Moderate- High	132	8.3	1	1	
Never or Less	1,345	40.6	7.5	4.02-14.11	
Sex					0.846
Women	783	37.5	1	1	
Men	694	38.0	1.02	0.82-1.26	
Age (Year)					0.285
< 20	758	37.2	1	1	
20–29	386	40.9	1.16	0.91-1.50	
≥ 30	333	35.4	0.92	0.70-1.2	
Marital status					0.191
Single	552	40.2	1	1	
Married	817	37.2	0.88	0.70-1.09	
Windowed	53	28.3	0.58	0.31-1.09	
Divorced/Separated	55	30.9	0.66	0.36-1.20	
Education					0.05
Uneducated	273	34.8	1	1	
Elementary school	544	35.1	1.01	0.74-1.37	
Junior school or above	660	41.2	1.31	0.97-1.76	
Number of household members (person)					<0.001
< 4	501	29.3	1	1	
4 – 5	732	40.4	1.63	1.28-2.08	
≥ 6	244	47.1	2.14	1.56-2.94	
Family Status					0.066
Head of the family	312	33.3	1	1	
Family members	1,165	38.9	1.27	0.98-1.66	
Type of domicile					<0.001
Rural	1,205	34.6	1	1	
Urban	272	51.4	1.99	1.53-2.60	
Duration of being in Thailand during previous visit (Year)					<0.001
Never	578	26.4	1	1	
≤ 1 year	241	42.7	2.07	1.51-2.84	
≥ 2 year	658	45.9	2.35	1.85-2.99	
Duration of living in Thailand this time (Year)					0.761
≤ 1	1,328	37.6	1	1	
≥ 2	149	38.9	1.05	0.74-1.49	
Document for trans-border					<0.001
Border pass and other	336	13.3	1	1	
Passport	505	35.6	3.58	2.49-5.14	
Passport and visa	636	52.3	7.10	5.00-10.08	
Work permit					<0.001
Dose not have	438	18.2	1	1	
Have, with self-expense	568	44.1	3.54	2.64-4.75	
Have, paid by employer	471	48.2	4.16	3.07-5.63	
Accommodation					<0.001
Rental house or room	370	23.5	1	1	
Relative house or other	217	34.1	1.68	1.16-2.43	
House or room arranged by employer	890	44.6	2.61	1.99-3.44	

Residential area					0.035
Urban	785	35.2	1	1	
Rural	692	40.6	1.25	1.01-1.54	
Number of family member (Person)					<0.001
≥ 4	554	32.8	1	1	
2 – 3	773	37.7	1.24	0.98-1.56	
1	150	56.0	2.60	1.80-3.75	
Financial status					<0.001
Not enough	251	20.7	1	1	
Enough with no saving	466	34.7	2.03	1.42-2.92	
Enough with saving	760	45.2	3.16	2.25-4.43	
BMI (Kg/m²)					0.548
Overweigh	445	36.6	1	1	
Normal	1,032	38.2	1.07	0.85-1.35	
Health status					<0.001
Mild severe	272	17.6	1	1	
Healthy	1,205	42.3	3.42	2.45-4.77	
Recreation (Day/week)					<0.001
No	275	27.6	1	1	
1	1,027	40.3	1.76	1.32-2.36	
≥ 2	147	42.1	1.90	1.25-2.90	
Smoking					0.436
No	304	35.8	1	1	
Yes	1,173	38.2	1.10	0.85-1.44	
Alcohol Consumption					<0.001
No	458	30.5	1	1	
Yes	1,019	41.0	1.57	1.24-1.99	
Acute disease during the past 3 months					<0.001
vNo	255	25.4	1	1	
Yes	1,222	40.3	1.97	1.45-2.67	
Chronic disease					<0.001
Yes	190	14.7	1	1	
No	1,287	41.1	4.05	2.67-6.14	
Received health promotion service					<0.001
No	818	32.7	1	1	
Yes	659	44.0	1.61	1.30 - 1.99	
Health Service					<0.001
No	584	25.0	1	1	
Yes	893	46.1	2.56	2.04-3.23	

The factor associated with good QOL of the respondents when controlling other covariates in a multivariable analysis using GLMM indicated factors that were significantly associated with having good quality of life of Laotian migrant workers were; had high level of social capital (adj. OR=3.55; 95%CI: 2.62-4.83) while compare with low level of social capital, high level of health literacy on access to health information, communication skills, self-management, media literacy and decision making skills literacy (adj. OR=2.33; 95%CI: 1.69-3.23), high level of cognitive health literacy (adj. OR=1.77; 95%CI: 1.28-2.45), low to moderate level of stress (adj. OR=2.12; 95%CI: 1.49-3.02), not depress (adj. OR= 4.05; 95%CI: 1.96-8.41) and physically healthy (adj. OR=1.71;95%CI: 1.12-2.62). Other significant covariates were socioeconomic status including family size, accommodation, financial status, and migration conditions (Table 5).

Table 5. Multivariable analysis for factors associated with good QOL of Laotian migrant workers in The Northeast of Thailand using GLMM (n=1,477).

Number	Number	%Good QOL	Crude OR.	Adj. OR.	95% CI	p-value
Social capital (Level)						< 0.001
Low and Moderate	948	26.5	1	1	1	
High	529	57.8	3.78	3.55	2.62-4.83	
Health literacy Cognitive health literacy						0.001
Low and moderate levels	991	33.1	1	1	1	
High level	486	47.3	1.81	1.77	1.28-2.45	
Access to health information, Communication skills, Self-management, Media literacy and Decision making skills						< 0.001
Low and moderate levels	1,121	34.6	1	1	1	
High level	356	47.7	1.72	2.33	1.69-3.23	
Stress						< 0.001
High levels	365	24.9	1	1	1	
Low and moderate levels	1,112	42.0	2.18	2.12	1.49-3.02	
Depression						< 0.001
Mild, moderate and high	132	8.3	1	1	1	
No	1,345	40.6	7.5	4.05	1.96 - 8.41	
Number of family member (person)						0.001
< 4	501	29.3	1	1	1	
4-5	732	40.4	1.63	1.64	1.20 - 2.26	
≥ 6	244	47.1	2.14	2.08	1.36 - 3.19	
Number of time working in Thailand (Time)						< 0.001
1	692	26.3	1	1	1	
≥ 2	785	47.9	2.57	1.78	1.33 - 2.40	
Document used for trans-border						< 0.001
Border pass	336	13.3	1	1	1	
Passport	505	35.6	3.58	2.03	1.27 - 3.25	
Passport with visa	636	52.3	7.10	3.77	2.38 - 5.99	
Work permit						0.001
Does not have	438	18.2	1	1	1	
Have, with self-expense	568	44.1	3.54	1.54	1.00 - 2.40	

Have, paid by employer	471	48.2	4.16	2.38	1.48 - 3.82
Accommodation					0.010
Rental house or room	370	23.5	1	1	1
Relative house or others	217	34.1	1.68	2.03	1.24 - 3.34
House or room arranged by employer	890	44.6	2.61	1.47	1.02 - 2.12
Residential area					0.006
Urban	785	35.2	1	1	1
Rural	692	40.6	1.25	1.53	1.13 - 2.07
Financial status					0.009
Not enough	251	20.7	1	1	1
Enough with no saving	466	34.7	2.03	1.89	1.17 - 3.05
Enough with saving	760	45.2	3.16	1.97	1.25 - 3.12
Health status					0.012
Mild to severe	272	17.6	1	1	1
Healthy	1,205	42.3	3.42	1.71	1.12 - 2.62

DISCUSSION

The result of this study showed that more than one-third (37.78%) of Laotian migrant workers had good quality of life and 61.1% them had moderate level of quality of life. This result was consistent with the previous studies among Myanmar migrant workers in Chaing Rai province, Thailand.[15] The result reflect that almost all of the respondent were satisfied while working in the Northeast of Thailand. The possible reasons might be about 80% of them were from rural Lao PDR. The main reasons for working in Thailand was hardship in their home country and better income and living conditions in Thailand. In addition with similar culture and language they might be able to form relationship with community and organizations. This was also supported by our findings that the respondents who had high level of social capital (adj. OR=3.55; 95%CI: 2.62-4.83) had better QOL. Many studies which conducted in recently year in some part in Asia such as China, India, and Thailand found that social capital had influent on the QOL.[10-14] It could be explained that social capital involve social network and connection between persons and community. Therefore, Laotian that has strong cultural and linguistic linkages with Thai people especially the Northeasterners that have almost the same language should have better connection and integration.

In addition, concerning their health literacy level, Laotian migrant worker in Thailand who had high level of health literacy on access to health information, communication skills, self-management, media literacy and decision making skills literacy had better QOL (adj. OR=2.33; 95%CI: 1.69-3.23) while compare with those who had low and moderate health literacy level. This finding is was similar with the studies which conducted in Cambodia and Bangladesh which observed that QOL had a significant positive association with health literacy.[17,18]

Referring to Laotian migrant worker in Thailand who had low and moderate levels of stress were more likely to had good QOL (adj. OR=2.12; 95%CI: 1.49-3.02), as well as the result related with depression, indicated that the respondents with no depression were more likely to have good QOL (adj. OR=4.05; 95%CI: 1.96-8.41). It might due to the psychological working and living environment that had influence on their QOL. It could be the long effect of their occupational environement.[5,15,16,28,29] Similar to the study in Singapore indicated that stress of the social relationship among Burmese domestic female workers had impact on mental health problem related with QOL.[27] Moreover, the study from China indicated that rural to urban female migrant worker had mental health problem which deteriorated their QOL.[26]

This study also illustrated that those with physically healthy (adj. OR=1.71; 95%CI: 1.12-2.62) had better QOL. This finding was compatible with many studies which conducted among the migrant worker.[25,30] The possible reasons were that if they are healthy they will not suffer of any illness and could work properly to earn more income and get enough resources for good living conditions.

The strength of this study is that it is a regional reprehensive with big sample size therefore it could be generalize for the Laotian migrant workers in the Northeast region of Thailand. Possible limitation is that this is a cross-sectional study that could not infer the causal relationship, a cohort study should be conduct to explain the situations.

CONCLUSION

The findings suggested that improvement of health services for migrants are needed. Health literacy building is important especially through the dissemination of health information for better access to relevant information. Providing advice, counselling and behavior modifications as well as regular screening for prompt actions are essential. Emphasis on social capital building should be widely established for these migrants to help supporting each other through forming network among migrants to emphasis on sharing information, relationship building through joining cultural activities, establish good attitude towards self, family and society as well as appropriate behaviors. The networks and authorities should help them for human right and legal migration process with proper work permit and working and living conditions.

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