

Policy Literacy and Barriers Impact on Accessibility to Health Care Services under Social Security Scheme among Myanmar Migrant Workers in Thailand

Aye Myat Myat Win¹, Sang-arun Isaramalai^{2*}, and Phen Sukmag¹

¹ Health System Management Institute, Prince of Songkla University, Hat Yai, Songkhla 90110, Thailand

² Faculty of Nursing, Prince of Songkla University, Hat Yai, Songkhla 90110, Thailand

*Corresponding author. E-mail: isangarun@hotmail.com

<https://doi.org/10.12982/CMUJASR.2019.0004>

ABSTRACT

Documented migrants working in formal sectors in Thailand are entitled to the Social Security Scheme. However, they often experience barriers and have limited literacy to access health care. Migrants with limited policy literacy have difficulty in accessing available health care services and this condition worsens in combination with various barriers. Little is known about health care accessibility under this scheme. This study aims to explore levels of policy literacy, barriers, accessibility and predictability of personal factors, policy literacy and barriers on accessibility to health care services among Myanmar migrant workers. A structured questionnaire with closed- and open-ended questions was employed to collect data among 240 participants recruited with purposive sampling from five factories in Hat Yai District, Songkhla Province. Socio-demographic characteristics, policy literacy, barriers and health care accessibility were presented descriptively. Stepwise linear regression was used to test the predictability of personal factors, policy literacy and barriers on health care services accessibility. Open-ended questions were analysed with simple content analysis. Migrants had low levels in total scores of policy literacy, barriers and health care accessibility. Although overall individual barriers were found to have low level, there was moderate level in overall system barriers among migrants. Policy literacy ($\beta = 0.53$) and barriers ($\beta = -0.28$) were able to predict accessibility to health care services. Findings indicated that actions to improve health care access, enhance policy literacy and reduce barriers are needed among Myanmar migrant workers.

Keywords: Policy literacy, Barriers, Accessibility, Health care services, Migrant workers

INTRODUCTION

Thailand has become an increasingly popular destination country for migrant workers. Migrants fill the labour gap by working in low-skilled jobs such as industries for exportation of products (The OECD Development Centre and International Labour Organization, 2017). They also receive a three to five times higher daily wage compared to that in their original countries (Kantayaporn & Malik, 2013). As a result, Thailand attracts migrant workers, especially from the neighbouring countries of Myanmar, Cambodia, Laos and Vietnam. In 2017, documented Myanmar migrant workers comprised 69 percent of the total documented low-skilled migrant

workers in Thailand (United Nations Thematic Working Group on Migration in Thailand, 2019). Migrant workers are susceptible to health problems due to crowded living conditions and poor environmental sanitation. Tuberculosis, sexually transmitted infections and malaria are common among migrant workers (Naing et al., 2012; Rakprasit et al., 2017; Nwi et al., 2018). Therefore, health care services are important for maintaining their health status.

Thailand's Social Security Scheme, established in 1990, provides health care services to its residents as well as to documented migrant workers in formal sectors. The scheme is financed by tripartite contributions from the government, employers and employees. Members of the scheme can receive seven types of benefits: accident or sickness, disability, maternity, payment for death, child allowance, unemployment, and old-age pension (Kantayaporn & Malik, 2013; Tangcharoensathien et al., 2017). However, a study in the Northeast of Thailand found that health care access among migrant workers is as low as 14 percent (Khongthanachayopit & Laohasiriwong, 2017). As a result, accessibility to health care has become an important issue for migrant workers.

Many factors influence accessibility of health care services among migrant workers. The literacy ability on health care policy affect the migrants' use of health care services, thereby having impact on health outcome (Hannah & Lê, 2012; Gele et al., 2016; Tsai & Lee, 2016). Migrants, a vulnerable population, are more likely to have low health care policy literacy that leads to inadequate utilisation of health care services and increased chance of chronic diseases (Han et al., 2011). Migrants need to be literated on the health care policy to improve health care access, thereby achieving health equity (Batterham et al., 2016; Gele et al., 2016). Moreover, barriers such as language, long waiting times, poor communication with health care providers and transportation difficulty deter health care access (Webber et al., 2012; Webber et al. 2015; Tschirhart et al., 2016, 2017). In addition, personal factors such as gender, marital status, monthly income, educational level, duration of stay, and time taken to access health care services also influence health care access (Aung et al., 2009; Gonah et al., 2016; Musumari & Chamchan, 2016; Khongthanachayopit & Laohasiriwong, 2017).

Studies on accessibility to health care services among migrant workers in Thailand revealed that self-medication is common and care is sought only when symptoms worsen (Naing et al., 2012; Khongthanachayopit & Laohasiriwong, 2017; Nwi et al., 2018). As a result of the Thai government's effort to register all migrants thereby eliminating their undocumented status, in June 2018 more than 1 million migrants had completed the National Verification process and received work permits. In 2018, more migrants enrolled to the Social Security Scheme than the Migrant Health Insurance Scheme (United Nations Thematic Working Group on Migration in Thailand, 2019). Consequently, health care access under the Social Security Scheme has become an important issue. Many studies have been conducted on health care access among documented and undocumented migrant workers in Thailand (Aung et al., 2009; Naing et al., 2012; Mon & Xenos, 2015; Gonah et al., 2016; Khongthanachayopit & Laohasiriwong, 2017). However, few studies focussed on health care access under the Social Security Scheme, and most of these contained a small sample size (Webber et al., 2012; Jaidee et al., 2016; Nwi et al., 2018). Therefore, it is crucial to explore the current situation of accessibility to health care services under the Social Security Scheme. The aims of this study were to explore the levels of policy literacy, barriers, accessibility to health care services and to test predictability of personal factors, policy literacy and barriers on accessibility to health care services under the Social Security Scheme among Myanmar migrant workers.

METHODOLOGY

Study settings and sample

A cross-sectional survey was conducted in Hat Yai District, Songkhla Province, Southern Thailand. Songkhla Province is a major commercial area with various types of factories such as rubber, wood and seafood processing (Naing et al., 2012). In March 2018, there were 43,895 documented Myanmar migrants working in the province which include both Memorandum of Understanding (MOU) and Nationality Verified workers (Foreign Workers Administration Office, 2018). Hat Yai District was chosen as the study setting because it has the highest number of factories (479) in Songkhla Province (Department of Industrial Works, 2018).

The study included Myanmar migrant workers who had been living in Thailand for at least one year. The rule of thumb for multiple regression of 30 participants per one predictor was employed for sample size calculation (VanVoorhis & Morgan, 2007). With eight predictor variables, a total of 240 participants were therefore recruited. The four most common factory types in Hat Yai district, namely seafood, rubber, wood and mechanics factories, were purposively selected. In total, 60 participants who met the inclusion criteria were recruited from various departments of each factory. However, 60 participants were recruited from two mechanics factories due to an inadequate number of participants in one factory. As a result, three large and two medium-sized factories were included.

Measures

A questionnaire consisting of four parts: socio-demographic characteristics, policy literacy, barriers, and accessibility to health care services, was employed. Policy literacy of the health insurance scheme in this study was based on a health literacy concept, which is defined as “the degree to which people are able to access, understand, appraise and communicate information to engage with the demands of different health contexts to promote and maintain health across the life-course” (Zumbo et al., 2006). Policy literacy was explored in the four domains of ability to access (seeking or searching competency), ability to understand (clarifying competency), ability to appraise (evaluating competency) and ability to communicate (sharing and distributing competency) policy information related to the health care services. Barriers were explored in terms of individual factors such as personal, financial, and social, and system factors such as barriers related to care providers, health services, and work situation (Scheppers et al., 2006; Webber et al., 2012; Hacker et al., 2015). Accessibility to health care was based on four domains of geographic accessibility, availability, financial accessibility and acceptability (Peters et al., 2008).

The questionnaire that collected data on policy literacy, barriers and accessibility to health care services included 33 items, 28 items and 22 items, respectively. The tool used a four-point Likert scale that scored the items from 1 (strongly disagree) to 4 (strongly agree). Open-ended questions were included to explore migrant workers' opinions in more depth.

Validity of the tool was examined by three experts in areas of public health, health system and community health. The tool was modified based on each expert's recommendations. The questionnaire was translated into Myanmar language by the bilingual researcher and another bilingual translator translated the questionnaire from Myanmar language back into English. Modifications were made on the differences of the two versions. The final questionnaire was pre-tested among 30 Myanmar migrant workers from one factory in Hat Yai District. Reliability was calculated using Cronbach's coefficient alpha. The scores for policy literacy, barriers and

accessibility to health care service questionnaires were 0.87, 0.84 and 0.72, respectively. After pre-testing, the questionnaire was further edited for better language understanding in the parts that migrant workers needed better comprehension.

Data collection and analysis

The study protocol was approved by the Health Human Research Ethics Committee of Health System Management Institute, Prince of Songkla University (reference EC 014/61). Study objectives and data collection procedure were informed to authorized persons from two factories that allowed data collection. For the remaining three factories, data collection was performed outside the factories with the help of migrant workers who had been working for a long time in the factories. Participants were given informed consent forms in order to assess willingness to participate in the study. Participants were explained about the study, confidentiality and their right to withdraw from the study at any time. Each questionnaire took approximately 25 minutes to complete.

Data was analysed using SPSS version 17.0. Socio-demographic data, policy literacy, barriers and accessibility to health care services were presented using descriptive statistics. Level of policy literacy, barriers and health care accessibility was categorised into low, moderate and high using tertile calculation (splitting data into three groups). Stepwise linear regression analysis was performed to test predictability of personal factors, policy literacy and barriers on accessibility to health care. Open-ended questions were analysed with simple content analysis.

RESULTS

Socio-demographic characteristics of the 240 participants included in the study are shown in Table 1. More than half were aged 25 to 34 years (57.5%) and around half were male (50.4%). The majority were married (70.4%) and all of them were Buddhist. Just over half had monthly income of 8,000 to 9,600 Baht (55.8%). Most had a below high school level of education (62.9%) and nearly half had been living in Thailand for one to five years (48.3%). More than half could speak the Thai language a little (59.6%). A majority were living in dormitories provided by the factories (69.6%). Regarding health seeking behaviour, most had health care services under the Social Security Scheme mostly at health centres (39.9%), followed by a hospital (25.4%) and private clinic (3.8%), respectively. Some had never sought any health care because they either had no serious health problem or took medicines by themselves (15.1%). Some went to a general practitioner clinic with out-of-pocket payment (13.6%) and a few went to the clinic provided by the factory where they worked (2.1%). The majority stated that it took between five and thirty minutes to go to health care service area (79.6%).

Table 1. Socio-demographic characteristics of participants (N=240).

Socio-demographic characteristics	N	%
Age (years)		
19 - 24	41	17.1
25 - 34	138	57.5
35 - 44	46	19.2
45 - 54	15	6.3
Gender		
Male	121	50.4
Female	119	49.6
Marital status		
Single	63	26.3
Married	169	70.4
Divorced/Separated	8	3.3
Educational level		
Formal education		
High school or higher	79	32.9
Below high school	151	62.9
Monastery education	7	2.9
Never	3	1.3
Monthly income (baht)		
7,500 – 7,999	2	0.8
8,000 – 9,600	134	55.8
9,601 – 15,000	104	43.3
Living period in Thailand (years)		
1 - 5	116	48.3
6 - 10	96	40.0
11 - 15	25	10.4
16 - 20	3	1.3
Ability to speak Thai language		
Fluently	12	5.0
A little bit	143	59.6
Not at all	85	35.4
Place of residence		
Inside the factory	73	30.4
Outside the factory (provided by factory)	94	39.2
Outside the factory (renting by themselves)	73	30.4
Experience of receiving health care		
Never	51	15.1
Hospital visit with social security card	86	25.4
Health care centre visit with social security card	135	39.9
Private clinic visit with social security card	13	3.8
General practitioner visit	46	13.6
Factory clinic visit	7	2.1
Time taken from residence to health care service (minutes)		
5 - 30 minutes	191	79.6
31 - 120 minutes	49	20.4

Policy literacy on the Social Security Scheme

Table 2 shows a summary of the policy literacy scores among the study sample. Most migrants had a low level in total score of policy literacy on health care services, and low levels in ability to access, understand and appraise the information. However, most had a moderate level in ability to communicate the information to others. Regarding factory types, most migrants in seafood and mechanic factories had higher total policy literacy than those in rubber and wood factories. Although most migrants in all four factories had high ability to access and communicate the information to others, they had low ability to understand and appraise the information.

A total of 218 participants (90.8%) responded to the open-ended questions concerning policy literacy. Most migrants reported that sharing information about the scheme from organisations such as social security office and responsible factory staff was the most important technique, followed by distribution of pamphlets. The majority asked each other, or persons who they believed knew and understood the scheme well, such as factory/dormitory supervisors, when they needed clarifications and advice. Most perceived that the monthly contributions were high and were not able to share scheme information to others due to a lack of understanding.

Table 2. Summary of total and subtotal scores of policy literacy on the Social Security Scheme (N=240).

Policy Literacy	Low level N (%)	Moderate level N (%)	High level N (%)
Total score:	81 (33.8)	79 (32.9)	80 (33.3)
Seafood factory	16 (26.7)	16 (26.7)	28 (46.7)
Rubber factory	28 (46.7)	18 (30.0)	14 (23.3)
Wood factory	24 (40.0)	24 (40.0)	12 (20.0)
Mechanic factory	13 (21.7)	21 (35.0)	26 (43.3)
Subtotal score: Accessibility	85 (35.4)	81 (33.8)	74 (30.8)
Seafood factory	22 (36.7)	9 (15.0)	29 (48.3)
Rubber factory	17 (28.3)	27 (45.0)	16 (26.7)
Wood factory	27 (45.0)	28 (46.7)	5 (8.3)
Mechanic factory	19 (31.7)	17 (28.3)	24 (40.0)
Subtotal score: Understandability	98 (40.8)	63 (26.3)	79 (32.9)
Seafood factory	23 (38.3)	10 (16.7)	27 (45.0)
Rubber factory	27 (45.0)	17 (28.3)	16 (26.7)
Wood factory	25 (41.7)	23 (38.3)	12 (20.0)
Mechanic factory	23 (38.3)	13 (21.7)	24 (40.0)
Subtotal score: Appraisal	100 (41.7)	67 (27.9)	73 (30.4)
Seafood factory	23 (38.3)	12 (20.0)	15 (41.7)
Rubber factory	30 (50.0)	17 (28.3)	13 (21.7)
Wood factory	28 (46.7)	16 (26.7)	16 (26.7)
Mechanic factory	19 (31.7)	22 (36.7)	19 (31.7)
Subtotal score: Communication	84 (35.0)	89 (37.1)	67 (27.9)
Seafood factory	19 (31.7)	13 (21.7)	28 (46.7)
Rubber factory	33 (55.0)	18 (30.0)	9 (15.0)
Wood factory	20 (33.3)	30 (50.0)	10 (16.7)
Mechanic factory	12 (20.0)	28 (46.7)	20 (33.3)

Barriers on accessibility to health care services

Levels of barriers on accessibility to health care services are shown in Table 3. Many had low levels in total and all domains of barriers on accessibility to health care services, except the moderate level in system barriers. Regarding factory types, most migrants in all factories perceived low barriers in total and all domains, except wood factory where the majority perceived high levels in total score of barriers, including subtotal score of system barriers and two aspects of system barriers (care providers and work situation). However, most migrants in wood factory had low level in three aspects of individual barriers (personal, financial, social) and only one aspect of system barriers (health services).

A total of 139 participants (57.9%) responded to the open-ended questions concerning barriers of accessibility to health care services. The majority reported that language difficulty, lack of knowledge on available health care services and contracted health care service areas, translator cost and long waiting times were the main reasons preventing them from accessing health care services. Some reported lack of social support, discrimination from health care personnel, insufficient translators, and difficulty to get transportation from factory as their main barriers.

Table 3. Summary of total and subtotal scores for barriers on accessibility to health care services (N=240).

Barriers on accessibility	Low level N (%)	Moderate level N (%)	High level N (%)
Total score:	87 (36.3)	81 (33.8)	72 (30.0)
Seafood factory	26 (43.3)	16 (26.7)	18 (30.0)
Rubber factory	22 (36.7)	22 (36.7)	16 (26.7)
Wood factory	16 (26.7)	22 (36.7)	22 (36.7)
Mechanic factory	23 (38.3)	21 (35.0)	16 (26.7)
Subtotal score: Individual barriers	86 (35.8)	82 (34.2)	72 (30.0)
Seafood factory	22 (36.7)	22 (36.7)	16 (26.7)
Rubber factory	24 (40.0)	18 (30.0)	18 (30.0)
Wood factory	19 (31.7)	22 (36.7)	19 (31.7)
Mechanic factory	21 (35.0)	20 (33.3)	19 (31.7)
Individual barriers: Personal	111 (46.3)	73 (30.4)	56 (23.3)
Seafood factory	32 (53.3)	11 (18.3)	17 (28.3)
Rubber factory	30 (50.0)	18 (30.0)	12 (20.0)
Wood factory	24 (40.0)	21 (35.0)	15 (25.0)
Mechanic factory	25 (41.7)	23 (38.3)	12 (20.0)
Individual barriers: Financial	128 (53.3)	54 (22.5)	58 (24.2)
Seafood factory	38 (63.3)	6 (10.0)	16 (26.7)
Rubber factory	32 (53.3)	16 (26.7)	12 (20.0)
Wood factory	29 (48.3)	13 (21.7)	18 (30.0)
Mechanic factory	29 (48.3)	19 (31.7)	12 (20.0)
Individual barriers: Social	97 (40.4)	66 (27.5)	77 (32.1)
Seafood factory	26 (43.3)	16 (26.7)	18 (30.0)
Rubber factory	25 (41.7)	13 (21.7)	22 (36.7)
Wood factory	24 (40.0)	18 (30.0)	18 (30.0)
Mechanic factory	22 (36.7)	19 (31.7)	19 (31.7)

Table 3. (Continued)

Barriers on accessibility	Low level N (%)	Moderate level N (%)	High level N (%)
Subtotal score: System barriers	83 (34.6)	90 (37.5)	67 (27.9)
Seafood factory	25 (41.7)	24 (40.0)	11 (18.3)
Rubber factory	21 (35.0)	25 (41.7)	14 (23.3)
Wood factory	14 (23.3)	22 (36.7)	24 (40.0)
Mechanic factory	23 (38.3)	19 (31.7)	18 (30.0)
System barriers: Care providers	97 (40.4)	70 (29.2)	73 (30.4)
<i>Seafood factory</i>	29 (48.3)	20 (33.3)	11 (18.3)
<i>Rubber factory</i>	30 (50.0)	16 (26.7)	14 (23.3)
<i>Wood factory</i>	20 (33.3)	8 (13.3)	32 (53.3)
<i>Mechanic factory</i>	18 (30.0)	26 (43.3)	16 (26.7)
System barriers: Health services	121 (50.4)	40 (16.7)	79 (32.9)
<i>Seafood factory</i>	34 (56.7)	8 (13.3)	18 (30.0)
<i>Rubber factory</i>	27 (45.0)	10 (16.7)	23 (38.3)
<i>Wood factory</i>	30 (50.0)	14 (23.3)	16 (26.7)
<i>Mechanic factory</i>	30 (50.0)	8 (13.3)	22 (36.7)
System barriers: Work situation	122 (50.8)	43 (17.9)	75 (31.3)
<i>Seafood factory</i>	32 (53.3)	11 (18.3)	17 (28.3)
<i>Rubber factory</i>	32 (53.3)	15 (25.0)	13 (21.7)
<i>Wood factory</i>	22 (36.7)	10 (16.7)	28 (46.7)
<i>Mechanic factory</i>	36 (60.0)	7 (11.7)	17 (28.3)

Accessibility to health care services

Levels of accessibility to health care services are illustrated in Table 4. The total scores and four domains of accessibility to health care services were perceived as low levels by most migrants. The majority in three factories had high health care accessibility, except in rubber factory where most migrants had low health care accessibility. Most migrants in seafood factory perceived high accessibility in four domains, whereas those in rubber factory perceived low in all four domains. Although most migrants in wood and mechanic factories perceived low scores in geographic accessibility and acceptability, they perceived high scores in financial accessibility.

A total of 103 participants (42.9%) responded to the open-ended questions concerning accessibility to health care services. Most reported that getting a timely ambulance and receiving transportation from the factory at any time, providing official government translators in hospitals, health care centres and friendliness of health care personnel were essential. Most indicated contracted health care centres and their service hours were not enough and should be increased.

Table 4. Summary of total and subtotal scores of accessibility to health care services (N=240).

Accessibility to health care	Low level N (%)	Moderate level N (%)	High level N (%)
Total score	85 (35.4)	76 (31.7)	79 (32.9)
Seafood factory	13 (21.7)	14 (23.3)	33 (55.0)
Rubber factory	39 (65.0)	14 (23.3)	7 (11.7)
Wood factory	16 (26.7)	24 (40.0)	20 (33.3)
Mechanic factory	17 (28.3)	24 (40.0)	19 (31.7)
Subtotal score: Geographic	118 (49.2)	76 (31.7)	46 (19.2)
Seafood factory	17 (28.3)	23 (38.3)	20 (33.3)
Rubber factory	34 (56.7)	18 (30.0)	8 (13.3)
Wood factory	39 (65.0)	15 (25.0)	6 (10.0)
Mechanic factory	28 (46.7)	20 (33.3)	12 (20.0)
Subtotal score: Availability	111 (46.3)	53 (22.1)	76 (31.7)
Seafood factory	24 (40.0)	9 (15.0)	27 (45.0)
Rubber factory	43 (71.7)	9 (15.0)	8 (13.3)
Wood factory	16 (26.7)	16 (26.7)	28 (46.7)
Mechanic factory	28 (46.7)	19 (31.7)	13 (21.7)
Subtotal score: Financial	84 (35.0)	82 (34.2)	74 (30.8)
Seafood factory	16 (26.7)	15 (25.0)	29 (48.3)
Rubber factory	35 (58.3)	18 (30.0)	7 (11.7)
Wood factory	18 (30.0)	28 (46.7)	14 (23.3)
Mechanic factory	15 (25.0)	21 (35.0)	24 (40.0)
Subtotal score: Acceptability	115 (47.9)	49 (20.4)	76 (31.7)
Seafood factory	21 (35.0)	9 (15.0)	30 (50.0)
Rubber factory	37 (61.7)	10 (16.7)	13 (21.7)
Wood factory	31 (51.7)	13 (21.7)	16 (26.7)
Mechanic factory	26 (43.3)	17 (28.3)	17 (28.3)

Predictors of accessibility to health care services

Stepwise linear regression analysis showed that policy literacy ($\beta = 0.53$, $p < 0.001$) and barriers ($\beta = -0.28$, $p < 0.001$) were significant predictors of accessibility to health care services. Policy literacy was able to explain 41% of the variance, whereas policy literacy and barriers were able to explain 47% of the variance of accessibility to health care services. Results indicated that policy literacy was a stronger predictor than barriers on health care accessibility. Personal factors such as gender, marital status, monthly income, educational level, living period and time taken to access health care service were not significant predictors of health care accessibility. Therefore, Myanmar migrant workers with high policy literacy and a low level of barriers had high health care accessibility. Results of multiple regression analysis are shown in Table 5. The regression equation was constructed as follows:

$$\text{Accessibility to health care services} = 52.29 + 0.31 (\text{Policy literacy}) + (-0.22) (\text{Barriers})$$

Table 5. Linear regression on predicting accessibility to health care services by personal factors, policy literacy and barriers (N=240).

Variables	Model 1			Model 2		
	B	SE	β	B	SE	β
Constant	33.29	2.60		52.29	4.23	
Gender			-.09	.13		-.07
Marital status			.04	.53		.03
Monthly income			-.11	.09		-.08
Educational level			-.02	.71		.02
Living period			-.00	.82		.01
Time taken to access health care service			.08	.08		.08
Barriers			-.28			
Policy literacy	.37	.03	.53*	.31	.03	.53*
Barriers				-.22	.04	-.28*
R ²		41%			47%	

Note: Model 1 = Predictors: Policy literacy Total Score; Model 2 = Predictors: Policy literacy Total Score, Barriers Total Score. Significant at * $p < 0.05$.

DISCUSSION

The finding on low levels in overall policy literacy among majority of the migrants reflects limited literacy on health care services while have enrolled to the scheme. The result is consistent with previous studies in Singapore and Norway in which migrants had lacked of health services information, poor awareness and understanding about health insurance information (Lee et al., 2014; Gele et al., 2016; Ang et al., 2017). Policy literacy is also known to be affected by educational level (Vollandes & Paasche-Orlow, 2007; Seibel, 2019) and economic status (Batterham et al., 2016). Migrants might not pay much attention to health insurance scheme information because their main reason for coming to Thailand was employment. Moreover, they could not seek information due to their low proficiency in the Thai language since a previous study revealed language ability was related to health care services knowledge (Galanis et al., 2013; Seibel, 2019). As a result, they could not share the information to others.

Most migrants perceived low levels in overall barriers to health care access. Migrants in general are known to experience both demand and supply side barriers to access health care (Jacobs et al., 2011). Migrants in this study encountered demand side barriers of language difficulty, lack of knowledge on available health care services, and supply side barriers of long waiting times. Moreover, some reported insufficient social support such as pamphlets in Myanmar language and discrimination from health care personnel. These findings were consistent with previous studies among migrants in many countries (Veerman & Reid, 2011; Agudelo-Suárez et al., 2012; Webber et al., 2012; Galanis et al., 2013; Mon & Xenos, 2015; Czapka & Sagbakken, 2016; Gonah et al., 2016; Hennebry et al., 2016; Musumari & Chamchan, 2016; Ang et al., 2017; Mengesha et al., 2017; Tschirhart et al., 2017; Velez et al., 2017; Wohler & Dantas, 2017; Nwi et al., 2018). Nevertheless, migrants could access health care without payment and had family and friends support in accessing health care. Social support is known to be important to enhance migrants' health care access (Holmyong et al., 2018). As a result, most migrants had low levels of individual barriers to health care access. On the other hand, most had moderate level in system barriers.

The majority reported long waiting times when accessing health care. Factories do provide translators and transportation services. However, some reported insufficient translators and difficulty to get transportation. Therefore, the majority had a moderate level of system barriers.

Low level in overall barriers to health care accessibility was found because this study was conducted among documented migrants with Social Security Scheme. Since 2017, Thai government fully enforced immigration law for migrant workers to be documented with enrolment to the health care scheme (United Nations Thematic Working Group on Migration in Thailand, 2019). This finding was different from the previous studies in Thailand in which most migrant in the past were undocumented that facing fear of arrest and deportation, difficulty to travel for health care access as a result of their illegal status, including financial constraints for treatment cost due to lack of health insurance and perceived social marginalization (Aung et al., 2009; Veerman & Reid, 2011; Naing et al., 2012; Murray et al., 2016; Tschirhart et al., 2016, 2017;).

Results revealed that migrants under Social Security Scheme have low barriers to health care access such as long distance to health facilities as they can access health services at not only contracted hospitals but also contracted health care centres which was different from migrants under Compulsory Migrant Health Insurance Scheme (Aung et al., 2009; Naing et al., 2012; Mon & Xenos, 2015; Webber et al., 2015; Jaidee et al., 2016).

Most migrant workers had a low level in overall and four domains of accessibility to health care services, a result consistent with a prior study in the Northeast of Thailand which showed poor health care access (Khongthanachayopit & Laohasiriwong, 2017). Migrants mostly accessed care at health care centres due to long distances in travelling to hospital, a result consistent with a previous study in Songkhla province (Naing et al., 2012). Distance to a health care facility was substantial for health care access (O'Donnell, 2007). Although most migrants perceived health care services availability was enough, they reported that the number and opening hours of contracted health care centres were not adequate. Migrants were able to access health care without payment. However, many reported that reimbursement for advanced payments from the social security office was not straightforward. Previous studies in Ranong and Tak provinces of Thailand also revealed the importance of health care cost in health care access (Aung et al., 2009; Tschirhart et al., 2016). Migrants requested for friendliness of health care personnel without racial discrimination, understanding culture and improving quality of provided services were essential, results congruent with a previous study in the United Kingdom which revealed that migrants were dissatisfied with health care providers (Madden et al., 2017). However, this finding was inconsistent with many other previous studies (Charoenmukayananta et al., 2014; Galle et al., 2015; Mon & Xenos, 2015; Webber et al., 2015).

Stepwise linear regression analysis revealed that policy literacy and barriers were significant predictors of health care accessibility. Policy literacy can play a crucial role to enhance health care access and improve health outcome (Batterham et al., 2016). Migrants with high policy literacy were more likely to increase health care accessibility which was congruent with previous studies (Levy & Janke, 2016; Amoah & Phillips, 2018; Edward et al., 2018; Tipirneni et al., 2018). Barriers also affected health care access, resulting in health outcome disparities (Carrillo et al., 2011). Increased barriers were likely to reduce health care accessibility, a result consistent with earlier studies (Webber et al., 2012; Lin et al., 2015; Czapka & Sagbakken, 2016; Gonah et al., 2016; Schmidt et al., 2018;). Personal factors were unable to predict accessibility to health care services which contrasted with previous studies (Aung et al., 2009; Aung et al., 2010; Hannah & Lê, 2012; Naing et al., 2012; Gonah et al., 2016; Musumari & Chamchan, 2016;

Khongthanachayopit & Laohasiriwong, 2017). Migrants could access health care at contracted hospitals and health care centres. Consequently, personal factors had no association with health care accessibility, a result consistent with studies in Bangkok and Chiang Mai province, Thailand (Mon & Xenos, 2015; Nwi et al., 2018).

Based on the findings, recommendations are essential to improve health care services provision and health care access under the scheme. The Thai government should provide more translators in hospitals and health care centres. Providing information in the Myanmar language on the Social Security Scheme website, training health volunteers and distributing pamphlets from the social security office, and migrant workers' support organisations should be done to facilitate access to scheme information. Moreover, ability to access health care at private clinics without payment should be informed to migrant workers in order to reduce waiting times. Factories should provide enough translators and transportation service that can be available at any time.

This study has certain strengths and limitations. One of the strengths is inclusion of both closed and open-ended questions for better exploration of policy literacy, barriers and health care accessibility. Another strength is the involvement of participants who had experience and no experience of health care access under the scheme. On the other hand, a limitation of this study is involvement of Myanmar migrant workers in only large and medium-sized factory types in Hat Yai district, hence caution should be taken before generalising the findings to Myanmar migrant workers under the scheme in small-sized factories. Another limitation is the use of non-probability sampling that leading to the selection bias due to recruitment of participants in some factories which also limit the generalisability of the findings.

CONCLUSION

To our knowledge, this is the first study to explore the current situation of policy literacy, barriers, and health care accessibility under the Social Security Scheme among Myanmar migrant workers in Thailand. Results indicated that most migrant workers had low levels in overall policy literacy, barriers and health care accessibility. Barriers were found to have low level in individual barriers and moderate level in system barriers. Migrants with high policy literacy were more likely to access health care, whereas those with high barriers were less likely to access health care services. Moreover, recommendations are provided to enhance health care access by improving policy literacy and reducing barriers. As a result, this study can give benefits to the health of migrant workers by effective utilization of provided services. However, future qualitative studies with in-depth interviews and focus group discussion should be conducted to explore more on health care accessibility under the Social Security Scheme among all migrant workers.

ACKNOWLEDGEMENTS

This study was supported financially by the 'Thailand's Education Hub for Southern Region of ASEAN Countries' (TEH-AC) Scholarship from Prince of Songkla University. The authors would like to express sincere thanks to authorized persons from factories and all migrant workers who participated in this study.

REFERENCES

- Agudelo-Suárez, A.A., Gil-González, D., Vives-Cases, C., Love, J.G., Wimpenny, P., & Ronda-Pérez, E. (2012). A metasynthesis of qualitative studies regarding opinions and perceptions about barriers and determinants of health services' accessibility in economic migrants. *Bmc Health Services Research*, 12(1), 461. <https://doi.org/10.1186/1472-6963-12-461>
- Amoah, P.A., & Phillips, D.R. (2018). Health literacy and health: rethinking the strategies for universal health coverage in Ghana. *Public Health*, 159, 40-49. <https://doi.org/10.1016/j.puhe.2018.03.002>
- Ang, J.W., Chia, C., Koh, C.J., Chua, B.W., Narayanaswamy, S., Wijaya, L., & Vasoo, S. (2017). Healthcare-seeking behaviour, barriers and mental health of non-domestic migrant workers in Singapore. *Bmj Global Health*, 2(2), e000213. <https://doi.org/10.1136/bmjgh-2016-000213>
- Aung, N.C., Rechel, B., & Odermatt, P. (2010). Access to and utilisation of GP services among Burmese migrants in London: a cross-sectional descriptive study. *Bmc Health Services Research*, 10(1), 285. <https://doi.org/10.1186/1472-6963-10-285>
- Aung, T., Pongpanich, S., & Robson, M.G. (2009). Health seeking behaviours among Myanmar migrant workers in Ranong province, Thailand. *Journal of Health Research*, 23(Suppl.), 5-9.
- Batterham, R., Hawkins, M., Collins, P., Buchbinder, R., & Osborne, R. (2016). Health literacy: applying current concepts to improve health services and reduce health inequalities. *Public Health*, 132, 3-12. <https://doi.org/10.1016/j.puhe.2016.01.001>
- Carrillo, J.E., Carrillo, V.A., Perez, H.R., Salas-Lopez, D., Natale-Pereira, A., & Byron, A.T. (2011). Defining and targeting health care access barriers. *Journal of Health Care for the Poor and Underserved*, 22(2), 562-575. <https://doi.org/10.1353/hpu.2011.0037>
- Charoenmukayananta, S., Sriratanaban, J., Hengpraprom, S., & Trarathep, C. (2014). Factors influencing decisions of Laotian patients to use health care services in Thailand. *Asian Biomedicine*, 8(5), 665-672. <https://doi.org/10.5372/1905-7415.0805.342>
- Czapka, E.A., & Sagbakken, M. (2016). "Where to find those doctors?" A qualitative study on barriers and facilitators in access to and utilization of health care services by Polish migrants in Norway. *Bmc Health Services Research*, 16(1), 460. <https://doi.org/10.1186/s12913-016-1715-9>
- Department of Industrial Works. (2018). *Factory information*. Retrieved from <http://www.diw.go.th/hawk/en/index.Php>.
- Edward, J., Morris, S., Mataoui, F., Granberry, P., Williams, M.V., & Torres, I. (2018). The impact of health and health insurance literacy on access to care for Hispanic/Latino communities. *Public Health Nursing*, 35(3), 176-183. <https://doi.org/10.1111/phn.12385>
- Foreign Workers Administration Office. (2018). *Statistics of Aliens*. Retrieved from <https://www.doe.go.th/prd/alien/statistic/param/site/152/cat/82/sub/0/pull/category/view/list-label>
- Galanis, P., Sourtzi, P., Bellali, T., Theodorou, M., Karamitri, I., Siskou, O., & Kaitelidou, D. (2013). Public health services knowledge and utilization among immigrants in Greece: a cross-sectional study. *Bmc Health Services Research*, 13(1), 350. <https://doi.org/10.1186/1472-6963-13-350>

- Galle, A., Van Parys, A.-S., Roelens, K., & Keygnaert, I. (2015). Expectations and satisfaction with antenatal care among pregnant women with a focus on vulnerable groups: a descriptive study in Ghent. *BMC Womens Health*, 15(1), 112. <https://doi.org/10.1186/s12905-015-0266-2>
- Gele, A.A., Pettersen, K.S., Torheim, L.E., & Kumar, B. (2016). Health literacy: the missing link in improving the health of Somali immigrant women in Oslo. *Bmc Public Health*, 16(1), 1134. <https://doi.org/10.1186/s12889-016-3790-6>
- Gonah, L., Corwin, A., January, J., Shamu, S., Nyati-Jokomo, Z., & Van der Putten, M. (2016). Barriers to healthcare access and coping mechanisms among sub-Saharan African migrants living in Bangkok, Thailand: a qualitative study. *Medical Journal of Zambia*, 43(4), 238-246.
- Hacker, K., Anies, M., Folb, B.L., & Zallman, L. (2015). Barriers to health care for undocumented immigrants: a literature review. *Risk Management and Healthcare Policy*, 8, 175-183. <https://doi.org/10.2147/RMHP.S70173>
- Han, H.-R., Kim, J., Kim, M.T., & Kim, K.B. (2011). Measuring health literacy among immigrants with a phonetic primary language: a case of Korean American women. *Journal of Immigrant and Minority Health*, 13(2), 253-259. <https://doi.org/10.1007/s10903-010-9366-0>
- Hannah, C., & Lê, Q. (2012). Factors affecting access to healthcare services by intermarried Filipino women in rural Tasmania: a qualitative study. *Rural and Remote Health*, 12(4), 2118.
- Hennebry, J., McLaughlin, J., & Preibisch, K. (2016). Out of the loop:(in) access to health care for migrant workers in Canada. *Journal of International Migration and Integration*, 17(2), 521-538. <https://doi.org/10.1007/s12134-015-0417-1>
- Holumyong, C., Ford, K., Sajjanand, S., & Chamrathirithong, A. (2018). The access to antenatal and postpartum care services of migrant workers in the greater Mekong subregion: the role of acculturative stress and social support. *Journal of Pregnancy*, ArticleID 9241923. <https://doi.org/10.1155/2018/9241923>
- Jacobs, B., Ir, P., Bigdeli, M., Annear, P.L., & Van Damme, W. (2011). Addressing access barriers to health services: an analytical framework for selecting appropriate interventions in low-income Asian countries. *Health Policy and Planning*, 27(4), 288-300. <https://doi.org/10.1093/heapol/czr038>
- Jaidee, P. (H)., Jaidee, W., & Nunthawarasilp, P. (2016). *Policy perception and health service use among migrants in Trat province, Thailand. Proceedings of the 5th Burapha University International Conference 2016*. Bangsaen, Chonburi, Thailand.
- Kantayaporn, T., & Malik, S. (2013). *Migration and health service system in Thailand: situation, responses, and challenges in a context of AEC in 2015*. Bangkok, Thailand: WHO.
- Khongthanachayopit, S., & Laohasiriwong, W. (2017). *Accessibility to health services among migrant workers in the Northeast of Thailand. F1000Research*, 6, 972.
- Lee, W., Neo, A., Tan, S., Cook, A.R., Wong, M.L., Tan, J., ... Ho, C. (2014). Health-seeking behaviour of male foreign migrant workers living in a dormitory in Singapore. *Bmc Health Services Research*, 14(1), 300. <https://doi.org/10.1186/1472-6963-14-300>
- Levy, H., & Janke, A. (2016). Health literacy and access to care. *Journal of Health Communication*, 21(sup1), 43-50. <https://doi.org/10.1080/10810730.2015.1131776>

- Seibel, V. (2019). Determinants of migrants' knowledge about their healthcare rights. *Health Sociology Review*, 28(2), 140-161. <https://doi.org/10.1080/14461242.2019.1581988>
- Tangcharoensathien, V., Thwin, A.A., & Patcharanarumol, W. (2017). Implementing health insurance for migrants, Thailand. *Bulletin of the World Health Organization*, 95(2), 146-151. <https://doi.org/10.2471/BLT.16.179606>
- The OECD Development Centre and International Labour Organization (ILO). (2017). How immigrants contribute to Thailand's economy. Paris: OECD Publishing.
- Tipirneni, R., Politi, M.C., Kullgren, J.T., Kieffer, E.C., Goold, S.D., & Scherer, A.M. (2018). Association between health insurance literacy and avoidance of health care services owing to cost. *JAMA network open*, 1(7), e184796-e184796. <https://doi.org/10.1001/jamanetworkopen.2018.4796>
- Tsai, T.-I., & Lee, S.-Y.D. (2016). Health literacy as the missing link in the provision of immigrant health care: a qualitative study of Southeast Asian immigrant women in Taiwan. *International Journal of Nursing Studies*, 54, 65-74. <https://doi.org/10.1016/j.ijnurstu.2015.03.021>
- Tschirhart, N., Nosten, F., & Foster, A.M. (2016). Access to free or low-cost tuberculosis treatment for migrants and refugees along the Thailand-Myanmar border in Tak province, Thailand. *International Journal for Equity in Health*, 15(1), 100. <https://doi.org/10.1186/s12939-016-0391-z>
- Tschirhart, N., Nosten, F., & Foster, A. M. (2017). Migrant tuberculosis patient needs and health system response along the Thailand-Myanmar border. *Health Policy and Planning*, 32(8), 1212-1219. <https://doi.org/10.1093/heapol/czx074>
- United Nations Thematic Working group on migration in Thailand. (2019). *Thailand Migration Report 2019*. Bangkok, Thailand.
- VanVoorhis, C.W., & Morgan, B.L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology*, 3(2), 43-50. <https://doi.org/10.20982/tqmp.03.2.p043>
- Veerman, R., & Reid, T. (2011). Barriers to health care for Burmese migrants in Phang Nga Province, Thailand. *Journal of Immigrant and Minority Health*, 13(5), 970-973. <https://doi.org/10.1007/s10903-010-9433-6>
- Velez, D., Palomo-Zerfas, A., Nunez-Alvarez, A., Ayala, G.X., & Finlayson, T.L. (2017). Facilitators and barriers to dental care among Mexican migrant women and their families in North San Diego County. *Journal of Immigrant and Minority Health*, 19(5), 1216-1226. <https://doi.org/10.1007/s10903-016-0467-2>
- Volandes, A.E., & Paasche-Orlow, M.K. (2007). Health literacy, health inequality and a just healthcare system. *The American Journal of Bioethics*, 7(11), 5-10. <https://doi.org/10.1080/15265160701638520>
- Webber, G., Spitzer, D., Somrongthong, R., Dat, T.C., & Kounnavongsa, S. (2012). Facilitators and barriers to accessing reproductive health care for migrant beer promoters in Cambodia, Laos, Thailand and Vietnam: a mixed methods study. *Globalization and Health*, 8(1), 21. <https://doi.org/10.1186/1744-8603-8-21>
- Webber, G.C., Spitzer, D.L., Somrongthong, R., Dat, T.C., & Kounnavongsa, S. (2015). Migrant beer promoters' experiences accessing reproductive health care in Cambodia, Laos, Thailand, and Vietnam: lessons for planners and providers. *Asia Pacific Journal of Public Health*, 27(2), NP1228-NP1240. <https://doi.org/10.1177/1010539512449854>

- Wohler, Y., & Dantas, J.A. (2017). Barriers accessing mental health services among culturally and linguistically diverse (CALD) immigrant women in Australia: policy implications. *Journal of Immigrant and Minority Health*, 19(3), 697-701. <https://doi.org/10.1007/s10903-016-0402-6>
- Zumbo, B., Kelly, K., Begoray, D., Kazanjian, A., Mullet, J., & Hayes, M. (2006). The development and validation of measures of 'Health Literacy' in different populations. Institute of Health Promotion Research, University of British Columbia.