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A Path Model of Mental Health Service Utilization among Asian Immigrant Workers after Asean Community's Policy

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ABSTRACT

The changing of Asian immigrant workers, such as, Burmese, Lao, and Cambodian who are hard working in Thailand, is rapid. It leads to poor mental health which increases a need for public health administration because accessing mental health information after ASEAN community's policy is difficulties and burden. The objective of this study was to analyze a path model of mental health service utilization among Asian immigrant workers after ASEAN community's policy. This methodology was used by a cross-sectional survey with Asian immigrant workers such as, Burmese, Lao, and Cambodian in 2017. Instruments used general characteristics, public health administration, the need for mental health care, and mental health status related into mental health service utilization. A path model for mental health service utilization among Asian immigrant workers were analyzed by using path model. Results from this study showed that every causal factor had a direct effect on mental health service utilization. But public health administration among this groups following the ASEAN community policy had the most direct effect on mental health service utilization. Its standardized regression weight of 0.479 (p-value < 0.01). R square of mental health service utilization was 0.308. This study displayed that public health administration was the most important factor associated with mental

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health service utilization among Asian immigrant workers following the ASEAN community policy. This recommendation should be using qualitative methods for the next study among Asian immigrant workers.

Keywords: A path model, ASEAN community's policy, Asian immigrant workers, Mental health service utilization

INTRODUCTION

The migration of national and international population leads into the development of economies and societies in the world (Kaewanuchit & Sawangdee, 2016). In the present, migration was rapid process when Thailand formed the Asian Economic Community (AEC) society in 2015. Kaewanuchit and Sawangdee, (2016) found that job conditions and the distance travelled had a direct effect on mental health among Thai immigrant workers in Pranakron Si Ayutthaya Province, Thailand (Kaewanuchit & Sawangdee, 2016). This research indicates that an important factor on mental health is job conditions (Kaewanuchit & Sawangdee, 2016). The Bureau of registration administration of Thailand reported that the total population of Thailand on February 2016 was 65,931,550 people (The Bureau of registration administration, Ministry of the Interior, Thailand, 2017). The international population increased both 2015 and 2016 which was 1.26 % of the population in Thailand (Ministry of the Interior, Thailand, 2016). Moreover, data from the International Organization for Migration in 2014 found that Burmese, Lao, and Cambodian who worked in Thailand, only 39.13% had work permits (International Organization for Migration, 2014). Burmese, Lao, and Cambodians who work in low skilled jobs and legally register based on a Memorandum of Understanding (MOU) signed in 2003 (Hernandex-Quevedo & Jimmenez-Rubio, 2009; ILO, 2013). Mostly, Asian immigrant workers mainly work in the service sector, agricultural sector, construction, fisheries, and domestic service in Thailand (Kulkolkarn, 2017).

A rapid changing of Asian migrant workers (e.g. Burmese, Lao, and Cambodian) in Thailand leads to poor mental health (e.g. occupational stress) (Department of Mental Health, Thailand, 2016). The Commonwealth Association for Public Administration and Management (CAPAM) reported that a new structure of public health administration associated with demand and technology driven which focused on the macro structural factor of public health administration. For example, the mental health care system, mental health service management and contexts of emigration and reception (Bustamante et al., 2012). A new Obama care system managed only immigrant workers under The Affordable Care Act with co-payments for health policy in United State of America. While as, the Ministry of Public Health of Thailand attempted to force Burmese, Lao, and Cambodians who are migrant workers, to buy health insurance (The Bureau of registration administration, Ministry of the Interior, Thailand, 2017). Mental health service management is related

to convenience within emigration in Cuban (Portes & Rumbaut, 2001). The using of the mental health service among Cuban immigrant workers in Cuba before they were transferred to the mental health transfer system in Florida (Portes & Rumbaut, 2001). For example, government policy is to take care of health issues among new migrant workers and to tackle social exclusion and discrimination, to work within worker countries including passive acceptance active encouragement and adapt attitudes among workers ((Portes & Rumbaut, 2001).

The public health system in Thailand providing care for the mental health among Asian immigrant workers is based on the mental health care system under the ASEAN community's policy. Its report describes about mental health care among Burmese to use as guidelines to develop mental health of refugees (Kittirattanapaiboon, 2013).

The ASEAN community policy and the Sustainable Development Goals contain a health target set by World Health Organization (WHO) and the UN (WHO, 2016). The ASEAN community policy is associated with the ASEAN political and security community (APSC), and the ASEAN economic community (AEC), ASEAN social and cultural community (ASCC) (The ASEAN Occupational Safety and Health Network, 2015).

Previous research found that for mental health care and mental health service utilization among Asian migrant workers studies only the need for general health care, self-related health and indicators of physician (Gilay et al., 2012). Theses also stressed on the predictive value of self-assessed general, mental health on functional decline in elderly (Lee, 2002), based on self and physician rated general health both symptoms and diseases among women (Mellner & Lundberg, 2003). Some studies found that the discordance both physicians and patient self-related health (DeSalvo & Muntaner, 2011). It is similar to the health status and health care utilization patterns of foreigners in Spain (Hernandex-Quevedo & Jimmenez-Rubio, 2009).

Thus, it is important and necessary to study a path model of factors (e.g. public health administration, the need for mental health care, and mental health status) related to mental health service utilization among Asian immigrant workers after ASEAN community's policy.

The operational definitions of this study consist of (i) public health administration is the macro structural factors of public health administration with mental health care system and utilization, mental health service management, the context of emigration and reception, (ii) ASEAN community policy is policy to access in health care system and the health promotion, and mental health care among Asian immigrant workers, especially, Burmese, Cambodians, and Lao, (iii) need for mental health care is immigrant-specific mental health needs and conditions in Asian immigrant workers including health insurance under the government, employment condition leading to poor mental health, the difference of language, social discrimination, mental health services from country of origin, health expenditure,

and health information, (iv) mental health status is unhappiness, stress, anxiety, social impairment by using GHQ, and (v) mental health service utilization is factsheets mobile phone, websites, web boards, and email to contact with physician.

Hypothesis for this study is that the increment of public health administration, the strength of ASEAN community policy, the increased need for mental health care, and abnormal mental health status, have all led to incremental mental health service utilization among Asian immigrant workers after ASEAN community's policy.

METHOD

Research Setting and Participants

This cross-sectional study was a survey of 400 Asian immigrant workers who were 20-59 years old. The participants who were working from different locations in Bangkok, Nakhon Pathom, Phranakhon Si Ayutthaya, and Nonthaburi provinces in Thailand. Those workers screened participants for the following inclusion criteria: self-identified as Asian immigrant workers who could speak the Thai language for communication. In contradiction, the excluded criteria was the other workers who worked and lived in the other provinces.

Research Sampling Method and the Sample Size

A quota sampling method was nonprobability sampling to select Asian immigrant workers. The sample size was calculated using the M-plus guideline. It considered no less than 10-20 times the five variables used for identification by path model. These variables were public health administration, need for mental health service, mental health status, ASEAN community's policy, and mental health service utilization. This calculation showed that the sample sizes should be 300 participants. In this study, the total sample size was 400 participants to decrease proportional errors.

Instruments

The measurement for research instruments formed from 42 questions which had four parts. It were considered: (i) general characteristic, (ii) public health administration, the need for mental health care, and mental health status associated with mental health service utilization, (iii) Thai General Health Questionnaire (Thai-GHQ), and (iv) mental health service utilization.

Firstly, questions for individual characteristics added race, sex, education, marital status, work employment, and job characteristic.

Secondly, six items form the applied questionnaire for public health administration measures; based on public health perspectives, were evaluated. These items asked the participants of the mental health system and services, the public mental health administration of Thailand, social exclusion and social exploitation from the mental health administration. The items were replied using a 4-point Likert scale from "none" (1) to "most" (4). Cronbach's alpha coefficient of public health

administration among Asian immigrant workers was 0.80. In addition, the seven applied questions for need for mental health care measures were assessed. The selected items described about their health insurance card from the Thai government, work employment effects on their mental health, and social exclusion & social exploitation among the Asian immigrant workers from the Thai employers. Besides, other considerations were different language affects the need for mental health care, the lack of mental health services from countries of origin who they lived, lack of information about mental health care, and the high costs of mental health care. Cronbach's alpha coefficient in the need for mental health care variable was 0.79. All items in the scale used the 4-point scale format as well as need for mental health care measures.

Thirdly, the mental health status measure was measured (Nilchaikovit et al., 1996) by using items modified from the 12-items Thai version of the General Health Questionnaire (GHQ) by Goldberg and Williams (1988) which had been used as the screening instrument about common mental disorders and as a more general measure of psychiatric well-being in the group of Thai community settings. The Thai GHQ-12 version had good reliability and validity, with the range of Cronbach's alpha coefficients at 0.95, and the range of sensitivity and specificity at 85.3% and 89.7% respectively. The Thai GHQ-12 questions were (1) ability to concentrate, (2) loss of sleep due to worry, (3) playing a useful part, (4) being capable of making decisions, (5) being constantly under strain, (6) inability to overcome difficulties, (7) ability to enjoy day-to-day activities, (8) ability to face problems, (9) feeling unhappy and depressed, (10) losing confidence, (11) thinking of self as worthless, and (12) feeling reasonable happy. It is observed that it relates to somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. The scale of this measurement used a binary score to obtain the psychiatric prevalence rate and the Likert's scale [24] for performing the data analysis used in this study. The total scores are more than two indicating an abnormal mental health status. The total of summing the items of Thai-GHQ was calculated (α=0.95) among Asian immigrant workers following ASEAN community policy. Content validity by five specialist public health professors was passed. While as, the construct validity was validated by the Carver method [25]. The Index of Item-Objective Congruence (IOC) of the content and construct validity were 0.85 and 0.82, respectively. Reliability was approved by using Cronbach's alpha coefficient [26] from the SPSS program version 20. Its questionnaire's reliability was 0.90.

At the end of point, applied five items of part four for the mental health service utilization was from. For instance, the use of the government mental health service, telephone use during the consulting about mental health problem with the government service, the emails using to explain about government mental health services, the websites or web boards using to consult

about mental health problems with mental health services utilization of government and to obtain physician appointments to check, consult to treat mental health problem within the past year. The response options ranged from “none” (1) to “most” (4) which was a Likert-scale. The Cronbach’s alpha coefficient for the variable of mental health service utilization among Asian immigrant workers was 0.89.

Data Collection

Before the data collection was collected by the researchers and assistant researchers, this study which was a part of “a causal model of public health administration, need for mental health care, and mental health status associated with mental health service utilization among Asian immigrant workers after ASEAN community’s policy”, was accepted by the Human Ethics Committees from Mahidol University, Nakhon Pathum province, Thailand. Its code was COA. No. 2017/06-127 and the Thai Clinical Trials Registry code was TCTR20170713001. Self-administered surveys were conducted in parks, roadsides, factories, gas stations, food center which were public places and in the participants’ homes. Then, both researchers and assistant researchers gave a detailed to participants. If they had difficulties understanding the questions, the researchers and assistant researchers provided further descriptions. All participants took about 30 minutes to complete the questionnaire. Finally, all of the completed questionnaires from the participants were put in a sealed box container and envelope.

Data Analysis

All the statistical analyses for the quota sampling design of this study adjusted. The summarized sample for a path model was analyzed by using path model for the continuous variables. This study presented maximum likelihood estimates, a path model of variance, analysis of the R square, and measurement of the goodness of fit of the path model using M-plus version 5.2 and p-values of less than 0.01, and 0.05 statistically significant considered. The rule of this path model by M-plus program was fitted for a population of over 250 people and it was observed that variables of less than 12 were approved, with a chi-square $\neq 0$ as well as degree of freedom, and with a p-value > 0.05, a Comparative Fit Index (CFI) > 0.95, and finally a Root Mean Square Error of Approximation (RMSEA) < 0.07, with a Standardized Root-Mean-Square Residual (SRMR) < 0.05 (Hair et al., 2009).

RESULTS

Participant general characteristics are presented (Table 1). Overall test of the model fit of the path model was acceptable (Table 2). In this path model among Asian immigrant workers following ASEAN community’s policy, the addition of various factors increased the explanation of the variance in mental health service utilization by 30.8% (p-value < 0.01) (Table 2). This diagram presented a mediating effect on the path factors in the relationship between the public health administrations, the need

for mental health care, and mental health status associated with mental health service utilization (Table 3 and Figure 1).

Table 1

General characteristic data among Asian immigrant workers after ASEAN community's policy (N= 400)

General geographic data	The most percentage of data
Race : Lao	50.0
Sex : Male	55.0
Education : Secondary school	60.4
Marital status : Marriage	66.7
Age (year old) : 20-29	43.3
Occupational employment : Employee	56.3
Job characteristic : Car cleaner	20.0

Table 2

Overall test of model fit for causal model (N= 400)

Criteria	Value
Chi-Square	0.110
Degrees of freedom	1
P-value	0.75
CFI	1.000
TLI	1.000
RMSEA	0
SRMR	0.003
R-square (ASEAN community's policy)	0.430**
R-square (Mental health service utilization)	0.308**

Note: ** p-value < 0.01

Table 3

Direct, indirect, and total effect of path model

Variable	Mental	Health	Service Utilization	ASEAN	Community's	Policy
	DE	IE	TE	DE	IE	TE
Public health administration	0.479**	-	0.479**	-	-	-
Need for mental health service	0.274**	-	0.274**	0.213**	-	0.213**

Table 3 *(Continued)*

Variable	Mental	Health	Service Utilization	ASEAN	Community's	Policy
	DE	IE	TE	DE	IE	TE
Mental health status	0.313**	-	0.313**	0.211**	-	0.211**
ASEAN community's policy	0.050**	-	0.050**	-	-	-

Note: ** p-value < 0.01

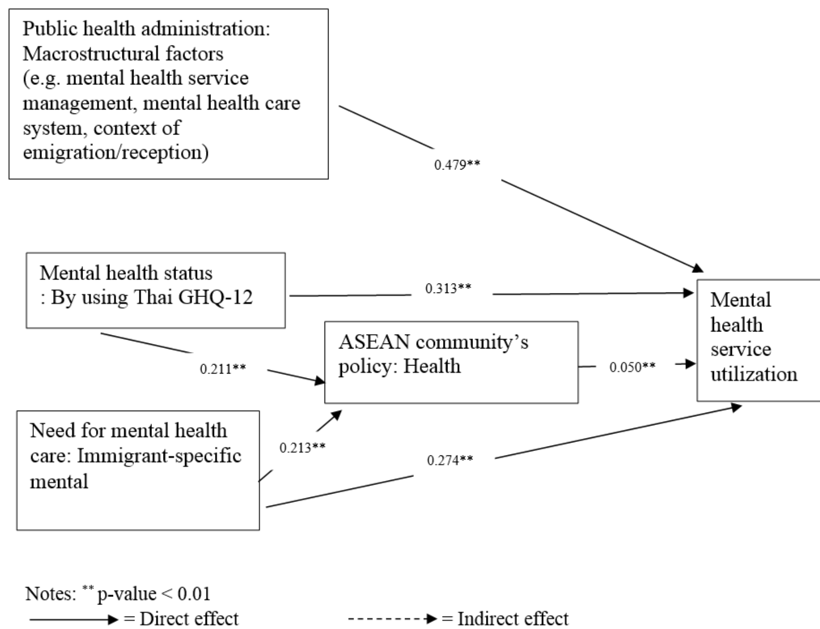

Figure 1. A path model of mental health service utilization among Asian immigrant workers after ASEAN community's policy

DISCUSSION

A highlight of this empirical study is the first outstanding empirical study finding for Thailand because it displays to associate with risk factors of mental health, public health administration and mental health service utilization among Asian immigrant workers after the opening of ASEAN's policy which have an effect on native people; especially, Thai people, Thai society and The ASEAN Occupational Safety and Health Network (The ASEAN Occupational Safety and Health Network, 2015). A good public health administration of Thailand from Thai

government should good management to mental health system in order to enhance the availability of mental health services utilization and to reduce the abnormal mental health status (Ministry of Public Health in Thailand, 2016) by following the suggestion to the WHO Commission on Social Determinants of Health Employment Conditions Network (EMCONET) study, with a glossary on employment relations (Benach et al., 2010).

Moreover, public health administration should be related to the mental health care system, mental health service management, the context of emigration, and reception among ASEAN people groups. Some researchers report that mental health service management is a good convenience within the context of emigration as in Cuban immigrant workers (Portes & Rumbaut, 2001) who used the mental health service utility in the community health system in Cuba before they were transferred to this service in Florida who was then transferred into the mental health system (Kittirattanapaiboon, 2013). It is an advantage among immigrant workers. In contradiction, African, Asian, and Latin America immigrant workers who have never done a universal health care system exhibited negative trends for this health and mental health service (Sanz et al., 2011). However, the public health administration of Thailand for the health system among Asian immigrant workers prepared the mental health care system by following the ASEAN community's policy (Department of Mental Health, Thailand, 2016; Kittirattanapaiboon, 2013). It displayed mental health care among the Burmese using guideline to develop mental health work and to report on the mental health among refugees (Department of Mental Health, Thailand, 2016; Kittirattanapaiboon, 2013). Empirical results from this study present that public health administration factors were the most consistently associated factors with mental health service utilization variable. It can be observed that the public health administration has an important path model with mental health service utilization variable. In addition, mental health status, and the need for mental health care are the second, and third path relationships associated with mental health service utilization among Asian immigrant workers after opening of ASEAN community' s policy. That is to say, it can also be indicated that both mental health status and the need for mental health care variables had both direct and indirect effects on the mental health service variable. Moreover, it can be seen that both directly affect the ASEAN community's policy. It should be studied in the next time.

However, other studies such as Latino (Hsieh et al., 2016), Cambodian, Iranian, Iraqi people, Vietnamese, African, Eastern European (Saechao et al., 2012), and Thai people have also studied on immigrant workers. For example, Latina hotel housekeepers who were immigrant workers and exposed to dirt, dust and social exclusion, and period limitations when for working in hotels affected to occupational stress (Hsieh et al., 2016). They needed

to use the health service in hospital, but they could not use it because of a lack of accessibility to health care system (Hsieh et al., 2016). In addition, economics, social discrimination, language differences, poor employment conditions, lack of mental health services in country of origin, cost, and a lack of information had an effect on need for mental health care and mental health service utilization of them (Saechao et al., 2012; Yang & Hwang, 2016). By contradiction, Thai Immigrant Employees in Bangkok studied about the variables (e.g. working conditions, workloads, job securities and wages) associated with occupational stress (Kaewanuchit, 2017). Thus, study about the associations between public health administration, the need for mental health care, and mental health status related to mental health service utilization among Asian immigrant workers following the ASEAN community's policy remains research limitation. This study builds upon this research and supports the importance of path model which is causal model for understanding and improving public health administration based on the occupational health among Asian immigrant workers who works in Thailand. This is among the first attempts to include measures from each variable of the path model in one synthesis.

In addition, Gatchel and Schultz (2012) maintained that the public health perspective was based on psychosocial occupational health hazards related to public health administration. Normally, the public health system does not pay sufficient attention to psychosocial occupational health hazards such as poor/ abnormal mental health status, occupational stress, and public health administration focused on the mental health management among immigrant workers.

In this study, authors found that there were several limitations. Firstly, the races among participants of this study were Burmese, Lao, and Cambodian. Several language differences became to be limitation, except, Lao people who used the Thai language making it easier for them to understand questionnaire. However, the communication difficulties with the other races in this study did not make it easy to reply some questions because they are Asian temporary immigrant workers and non-skill about the other languages. Secondly, the main limitation of this study is that it collected data only on Asian immigrant workers (e.g. Burmese, Lao, and Cambodian) because of budget limitations from Thai government. Thus, it also did not study all of the other immigrant workers when it should have added them. At the last limitation of this study is that its methodology only used the path model, which was a quantitative analysis, to create an understanding of the real causes. However, it should also use SEM analysis in the future. A suggestion in this study is that it should have used qualitative methods too. Good examples of qualitative methods are in-depth interviews, focus groups, and observation.

The enhance points of this study are that this path model explained 30.8 % of the variance in mental health service utilization. It implied that the model fit

of the path model was acceptable. It can lead towards some guidelines so as to the development of mental health policy and public health administration among ASEAN immigrant workers. Although, this study has a strong sample design, sample size, a high participation rate, an extensive collection of information, and the use of existing mental health service utilization measures. The recommendation of this study in the next time should expand the factors including the need for mental health care with over time, race, economics, social exclusion and social discrimination among Asian immigrant workers. In addition, it should also use some qualitative methods; such as, focus group, and discussion subsequent study among Asian immigrant workers who are from developing countries. Moreover, practical recommendations to the researchers/ policy makers engaged in policy of mental health service utilization and public health administration among immigrant employees in ASEAN associated with merit and ethic.

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