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Mental Health and Related Factors among Migrants from Myanmar in Thailand

Sirada Kesornsri[1], Yajai Sitthimongkol[1]*, Sureeporn Punpuing[2], Nopporn Vongsirimas[1] and Kathleen M. Hegadoren[3]

Abstract

Purpose: *To determine the prevalence of mental health problems in migrant workers from Myanmar in Thailand and to examine the relationship among factors that influence such problems. Lazarus's transactional model of stress and coping was used to frame the study.*

Design: *A cross-sectional design, involving interviews with 445 migrant workers from Myanmar, was used to collect data. Data collection tools included a sociodemographic form, the Interpersonal Support Evaluation List (ISEL-12), the Acculturative Stress Scale (ASS), the Perceived Stress Scale (PSS) and the Hopkins Symptom Check List (HSCL-25).*

Findings: *11.9% of the participants reported symptoms of depression and/or anxiety. Gender, self-rated physical health, and perceived general stress explained 49.0% of the probable presence of mental health problems and correctly classified 91.9% of cases. The low prevalence of these problems compared to other studies may be related to increased workplace and community stability.*

Conclusion: *The findings may help health care professionals to understand how overall good health and community and workplace environments can support mental health and wellbeing for migrant workers. Health promotion strategies have the potential to be an important future focus for health care professionals who provide services to this population.*

Keywords

Acculturative stress; social support; mental health; migrant workers; Myanmar

Introduction

In response to increased work opportunities, the influx of migrants into Thailand rapidly expanded from 528,693 in the 1990s to a peak of 1.7 million in 2017 (Foreign worker administration, 2017). It is estimated that this number represents about 5% of the Thai workforce (Asia-Pacific Migration Report, 2015) and contributes about 760 million baht annually to the Thai economy (Pholphirul & Rukumnuaykit, 2010). Most migrant workers in Thailand are registered, with the majority arriving from Myanmar (Noknoi & Langthaekun, 2015). This growing influx of workers has drawn increased attention to the host country's responsibilities with regard to the health needs of migrant workers (including mental health needs), and the necessity for the establishment of priority areas of concern and the

[1] Faculty of Nursing, Mahidol University, Thailand
[2] Institute for Population and Social Research, Mahidol University, Thailand
[3] Faculty of Nursing, University of Alberta, Canada
* Yajai Sitthimongkol, corresponding author. Email: yajai.sit@mahidol.ac.th

development of appropriate policies and services to meet these needs (Laurenti & Bruno, 2012). Thailand is a top-three destination country for migrant workers in The Association of Southeast Asian Nations (ASEAN) (United Nations, 2015). Thus, Thai government health departments and health care professionals must collaborate to ensure a strong healthy migrant workforce by developing policies that will result in the identification and treatment of migrant health problems in a timely manner. Some governmental programs to support access to health care, such as the provision of migrant health insurance, have already been instituted, although broad accessibility and quality of service remain challenges (Khongthanachayopit & Laohasiriwong, 2017).

The complexities inherent in the migration process itself can impact mental well-being. However, this study focuses on the mental health of migrant workers from Myanmar who have already migrated and are currently working in Thailand. Multiple national and international studies have reported higher prevalence rates of mental health problems (here defined as significant depression and anxiety symptoms) among migrants compared with native-born populations (Meyer, Decker, Tol, Mar, & Robinson, 2016; Arcury, Estrada, & Quandt, 2010; Familiar, Borges, Orozco, & Medina-Mora, 2011; Park & Rubin, 2012; Qiu et al., 2011). Depression and anxiety symptoms are the most commonly reported mental health problems among migrant workers (Bhugra et al., 2014); however, physical health problems, alcohol and drug problems, low quality of life, work performance issues, absenteeism, and various forms of health risk behaviors are also reported (McCoy, Shehadeh, & Rubens, 2016; Yaduma, Williams, Lockwood, & Park, 2015). Moreover, language barriers, low levels of health literacy, and the legal status of migrants have been found to be major barriers to accessing health care services (Meyer et al., 2016; Arcury et al., 2010; Tangcharoensathien, Thwinb, & Patcharanarumol, 2017; Adhikary, Shephard, Keen &, Teijlingen, 2018), potentially escalating mild symptoms to more severe and intrusive symptoms.

Lazarus's transactional model of stress and coping was chosen to guide this exploration of migrant worker mental health as it is based on the hypothesis that mental health problems are related to appraisal and coping processes that occur in response to perceptions of intrapersonal or environmental stressors. Although this model has been criticized for under-emphasizing the role of culture (Kuo, 2011), newer versions remain consistent with the fundamental role of appraisal in individual responses to stressors. The transactional model as applied to migrant workers posits that migrants must adapt themselves to a new culture, including eating new foods, speaking a new language, and choosing customary clothing; and that perceiving situations in the new context as threatening or out of one's personal control can lead to perceptions of powerlessness, which can affect mood or increase anxiety (Cohen, Kamarck, & Mermelstein, 1983; Lazarus & Folkman, 1987). Various studies have reported associations among stressors related to migration (termed acculturative stress) (Berry, 1997) and negative emotions as well as depression, anxiety and stress symptoms (Familiar et al., 2011; Fox & Kim-Godwin, 2011; Park & Rubin, 2012; Qiu et al., 2011). In the case of migrant workers from Myanmar, shared religious beliefs and similar diets may attenuate some sources of acculturative stress; however, other sources such as language, discrimination, and job and financial insecurity (Zimmerman, 2011) remain potential barriers to psychological well-being. As an example of discrimination, a public opinion survey found that many Thai people consider migrant workers from Myanmar as a threat to public safety by being vectors of diseases into the country, and further believe they take jobs away from Thai nationals (Sunpuwan & Niyomsilpa, 2012)

High levels of acculturative stress are common among migrant workers as has been demonstrated in multiple international studies, including in China (Wong & Song, 2010), Korea (Chae, Park, & Kang, 2014), the United States (Nicolas & Smith, 2013), and Scotland (Weishaar, 2008). However, in Thailand, relatively few studies on acculturative stress have been published. Two studies among Laotian migrants (Nilvarangkul, Runreangkulkij, & Wongprom, 2010) and migrants from Myanmar (Noom & Vergara, 2011) reported that the top five sources of acculturative stress were difficulties related to work, finances and language, acts of discrimination, and interactions with police regarding migrants' legal status. Acculturative stress has been associated with poorer mental health and psychological distress (Park & Rubin, 2012; Qiu et al., 2011; Mphil, 2014). However, data differs across countries and different categories of migrant workers cannot necessarily be generalized. Criteria including the characteristics of the migrant group, the type of work undertaken, the workplace environment, and geopolitical conditions may all influence the degree to which individual workers interpret their circumstances as stressful and experience stress-related health problems.

International studies regarding relationships among common socio-demographic factors and migrant workers' mental health problems have been previously published. In a study of Korean women in the USA, for example, age was reported to attenuate the risk of developing mental health problems (Ayers et al., 2009). The impact of length of residence on mental health is not clear; one study has found that newer immigrants experience more depression symptoms (Kim & Rew, 1994), while others find no such relationship (Park & Rubin, 2012). Low individual earnings and lower levels of education have both been shown to be negatively associated with physical and psychological well-being in immigrants (Jibeen, 2011; Zhang & Ta, 2009, Ayers et al., 2009; Familiar et al., 2011). Studies focusing on gender as a social determinant of health have also yielded mixed results. Some studies find gender differences in vulnerability to depression to favor women (Jibeen, 2011), while others do not find any differences between men and women (Hwang & Ting, 2008; Park & Rubin, 2012). Leaving one's country of origin to work in another often means a decline or loss of previous social support, which can impact the individual's appraisal process (Lazarus & Folkman, 1987). In general, research suggests social support from family, friends and neighbors attenuates risk of depression symptoms (Chou, 2009; Lin & Hung, 2007; Hovey & Magana, 2000). A related construct, social cohesion, defined as the willingness of members of a society to cooperate with each other in order to survive and prosper (Stanley, 2003) has also been shown to be significantly associated with depression symptoms (Shittu et al., 2014; Hsieh, 2015).

Migrant workers from Myanmar represent the most common migrant population in Thailand. An ongoing commitment from government agencies and health care settings is required to provide targeted health promotion services, as well as services that provide early detection and timely treatment for health concerns, in a safe environment that will not impact these workers' statuses as legal migrants in Thailand. To provide these services, it is imperative that data is collected to assess this population's health needs and to develop and test interventions to meet those needs. The two aims of this study are to investigate the prevalence of mental health problems (defined as meeting or exceeding a total mean score on the Hopkins Symptom Checklist of 1.75) and to explore the influence of specific socio-demographic characteristics, social support, and acculturative stress scores on the occurrence of mental health problems in migrant workers from Myanmar who work in Thailand.

Research Methods

This was a cross-sectional survey using a single structured questionnaire to interview participants. The study was reviewed and approved by the Ethics Committee of Research in Humans of the Faculty of Nursing, Mahidol University. The location (Mueang Samut Sakhon district) was chosen for the practical reason that it has the highest number of migrant workers (The Office of Foreign Workers Administration, 2015). It is a coastal district with about 40 kilometers of coastline and is located within Samut Sakhon Province. Multiple industries are located in this area, including those related to agriculture, fisheries, seafood processing, frozen seafood, salt fields, and shrimp farms. Extensive labor is needed across all these types of industry. Mueng Samut Sakhon is divided into 18 sub-district areas. There are 31 migrant communities in 10 of the sub-district areas. Ten migrant communities in 6 sub-district areas were randomly selected as the focus of this study using the probability proportional to size (PPS) sampling method. The PPS sampling method is used when units of interest have unequally sized populations and allows the researcher to exercise greater control over the ultimate sample size in cluster surveys (Bennett, Woods, Liyanage, & Smith, 1991).

The sample population consisted of migrant workers from Myanmar who were 18-60 years old, were born in Myanmar, had lived in Thailand at least 3 months, and had worked as semi or low-skilled workers with work permits (documented migrant workers). A snowball sampling technique was used to recruit participants and was driven by chain-referral. Volunteers from Raks Thai Foundation, a non-profit organization, were chosen to complete the interviews as they are Thai/Burmese bilinguals, have experience collecting data in field survey research, and have strong longstanding connections within the migrant workers' communities. Each interviewer randomly selected from the group of initial respondents according to each sub-district area. These early participants served as "seeders", referring coworkers and friends to the interviewer. The maximum number of interviews completed in each area was ten. Thus, each community had at least 4 seeders to ensure 40 participants from each area. Before initiating data collection, interviewers were given training on the specific protocols involved in the study. Members of the research team were also available during data collection to quickly respond to any questions or concerns, to check the questionnaires post-interview for completeness, and to provide psychological support or referral for counseling if needed.

Field teams consisted of the researcher and interviewers. Interviewers started the data collection process by providing verbal information about the study. For the participants who agreed to participate but were uncomfortable signing the consent, the interviewer signed on behalf of the participant to indicate that informed consent was obtained. The interview started with general conversation to increase participant comfort, then proceeded to document responses to each item from the individual questionnaires and ended with questions related to socio-demographics.

Measures

In addition to the socio- demographic data (age, sex, general health, smoking/drinking behavior, and language proficiency of each participant) and migration data (length of stay and cohabitant(s)), the following standardized questionnaires were completed by the interviewer based on participants' verbal responses:

The Interpersonal Support Evaluation List-12 (ISEL-12), the shortened version of the ISEL-40 (Cohen & Hoberman, 1983) consists of three dimensions of support: (a) appraisal support, (b) belonging support, and (c) tangible support. The total score is a sum across all items and ranges from 0-36. Higher scores reflect higher levels of perceived support. Though ISEL-12 had not been used to measure social support in a Thai context, it was employed across migrant studies with acceptable reliability (Cronbach's α=0.80 to 0.90) (Cohen, Mermelstein, Kamarck, & Hoberman, 1985) and validity (Neisler, et al, 2018; Held, 2018). A convergent validity analysis yielded a total score of ISEL-12 showing a significant correlation with perceived stress and negative affects (depression, anxiety) in the expected directions (Cohen & Hoberman, 1983). In this study, the ISEL-12 total was used for the analysis. Cronbach's alpha for the study sample was 0.80.

The Acculturative Stress Scale (ASS) (Sandhu & Arabadi, 1994) was modified to measure sources and levels of acculturative stress in this specific population based on previous Thai findings (Nilvarangkul, Runreangkulkij, & Wongprom, 2010). Content relevance was validated by three experts with extensive experience working with migrant workers in Thailand. The content validity index (CVI) for the items and the scale were deemed acceptable (CVI_i and CV_s= 1.0) (Grant & Davis, 1997; Polit & Beck, 2006; Polit & Beck, 2004). Following translation and back-translation, the modified ASS was tested with 30 migrant workers from Myanmar who shared similar characteristics with the study population. Cronbach's alpha for the study sample was 0.92. The modified ASS consisted of 24 items across four domains [perceived discrimination (10) items, perceived hate (5 items), stress due to change/culture shock (5 items), and financial problems (4 items)]. A five-point Likert scale was used to rate the level of acculturative stress (0=no stress – 5=severe stress) with higher scores indicating higher levels. An open-ended question was added to the end of the questionnaire so that participants could add other migrant-related stressors of their choice.

The Perceived Stress Scale-10 (PSS-10) was developed by Cohen and colleagues (1983) to measure the degree to which situations in one's life are appraised as stressful along with perceptions of how well one has been managing life stressors within the most recent month. The objective of the PSS-10 is relevant to the Lazarus transactional model of stress and coping, which was used as a framework in this study. The total score is the sum of all 10 items each scored on a 5-point scale (total score=0-40), with higher scores indicative of higher levels of stress. The PSS-10 was translated into Thai by Wongpakaran and Wongpakaran (2010). The overall Cronbach's alpha was 0.85. The ICC was 0.82 (95% CI, 0.72 and 0.88) at 4 week-retest reliability. Cronbach's alpha for the study sample was 0.75.

The Hopkins Symptom Checklist-25 (HSCL-25) was developed by Parloff, Kelman, and Frank (1954) and has been widely used as a screening instrument for anxiety and depression symptoms in diverse populations (Mollica, Wyshak, de Marneffe, Khuon, & Lavelle, 1987; Syed, Zachrisson, Dalgard, Ingvild, Ahlberg, 2008; Fröjdh, Håkansson, & Karlsson, 2004). This study used the Burmese version of HSCL-25, which was translated from English to Burmese and back-translated to English by Cardozo and colleagues (2004). The HSCL-25 is separated into two domains: anxiety (10 items) and depression (15 items). According to previous studies among migrant workers from Myanmar in Thailand (Lopes, Talley, Burton, & Crawford, 2004) and Australia (Schweitzer et al. 2011), a mean cumulative score higher than 1.75 for each subcategory is associated with significant mental health problems. The Burmese version of HSCL-25 showed strong internal reliability with a total scale Cronbach's alpha of 0.92 and subscale alphas of 0.83 for anxiety and depression (Schweitzer et al., 2011).

Cronbach's alpha for the total score in this study sample was 0.88 (0.78 and 0.82 for anxiety and depression sub-scale scores respectively).

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS 18). Descriptive statistics detailed the frequency, percentage (%), mean, standard deviation (SD), skewness and ketosis. Pearson correlation coefficients between variables were calculated. Mental health status was dichotomized into those with HSCL-25 mean scores below 1.749 and those with mean scores above 1.75 and was followed by a binary logistic regression analysis to examine factors predicting participants with mean total HSCL-25 scores above 1.75. The low frequencies of HSCL-25 mean sub-scale scores ≥1.75 for depression separated from anxiety scores, as well as the identification of a group who had mean scores ≥1.75 for both depression and anxiety, prevented us from completing separate regression analyses across the three groups.

Results

Similar numbers of men and women participated. The mean age was 31.24 (range 18-59). Only one participant was not Buddhist, although data were not collected on whether participants practiced their faith. Ninety percent were represented by three Myanmar ethnic groups (Burmese, Mon, and Karen). Almost half of the participants (41.1%) had at least an elementary school education. More than two-thirds of the participants were married (70.6%) and 38.7% had been in Thailand for 1-5 years. The participants worked as factory workers (71.1%), in fish processing (19.6%), or on commercial fishing boats (6.3%). Most rated their income as sufficient. Only 29% rated their Thai language proficiency as good. A key finding was the high levels of self-rated physical health (good=64.7%; very good=32.4%). In addition, low rates of high-risk lifestyle choices were reported (68.1% reported no tobacco smoking and 71% reported no alcohol ingestion in the past year).

Figure 1 summarizes the prevalence of mental health problems among the migrants from Myanmar. Consistent with their self-rated physical health, a large majority of the participants reported no mental health problems. The cumulative mean score for depressive symptoms was 1.39, and for anxiety symptoms, 1.34. Using the cut-off score of ≥1.75, the prevalence of participants with a mental health problem was calculated to be 11.9%.

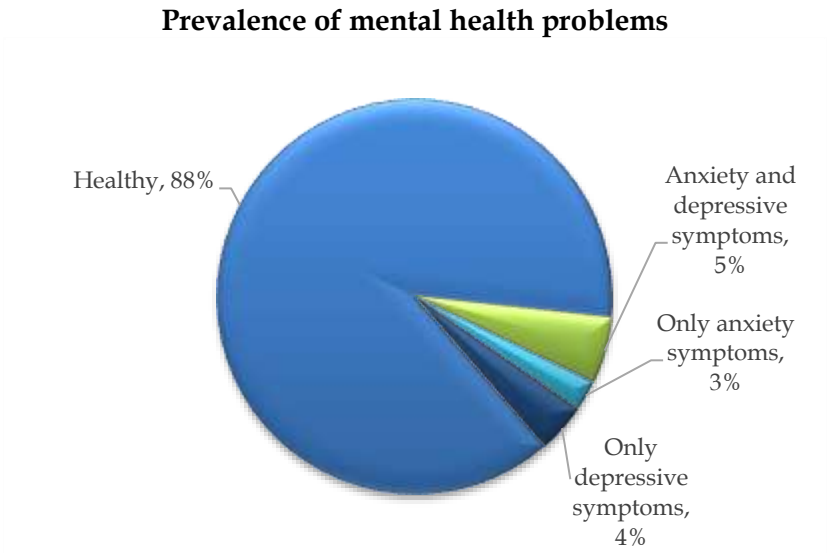

Figure 1: Mental health status among migrant workers from Myanmar (n = 445)

Table 1 shows the socio- demographic variables (gender, age, marital status, income sufficiency, physical health rating, and language proficiency) that showed a statistically significant association with the total HSCL-25 score. No associations were found between HSCL-25 scores and level of education, length of stay, tobacco smoking or alcohol use.

Bivariate correlations revealed statistically significant relationships between depressive symptoms and the scores on the appraisal domain of the ISEL ($r = -0.10$, $p < 0.05$). Depressive symptom scores were positively related to PSS scores ($r = 0.49$, $p < 0.01$) and to ASS scores ($r = 0.49$, $p < 0.01$). Anxiety symptom scores had a positive significant relationship with PSS scores ($r = 0.40$, $p < 0.01$) and ASS scores ($r = 0.57$, $p < 0.01$). A statistically significant positive relationship was also found between the total score on the HSCL-25 and PSS ($r = 0.49$, $p < 0.01$) and the total score of the ASS ($r = 0.56$, $p < 0.01$).

The multivariate analysis, which covered all theoretically significant socio-demographic and psychological variables related to the migrants' context in Thailand, uncovered only three factors that were associated with a mental health problem (gender, self-rated physical health, and PSS scores).

The model explained 49% (Nagelkerke R^2) of the probability of significant depression and/or anxiety symptoms being present and correctly classified 91.9% of cases. Females were found to be 4.74 times more likely to have a mental health problem than males. Participants who rated their physical health as good or very good were less likely to meet the criterion for a mental health problem than those who rated themselves as in fair or poor health. The higher the PSS score, the more likely depression and/or anxiety symptoms were found to be present (Table 2).

Table 1: Relationship between socio-demographic variables and mental health status

Variables	n	HSCL-25		X^2-Test[a]	P
		M	SD		
Gender* **					
Male	247	1.30	0.22	43.599	0.000
Female	198	1.47	0.29		
Age**					
18 – 24	125	1.34	0.23	8.72	0.033
25 – 34	164	1.40	0.26		
35 – 44	112	1.34	0.28		
≥ 45	44	1.50	0.33		
Level of Education					
None	41	1.36	0.27	6.456	0.168
Elementary school	183	1.41	0.28		
Junior high school	177	1.35	0.26		
High school	40	1.38	0.20		
College / University	4	1.46	0.30		
Length of stay (year)					
< 1	2	1.24	0.06	6.715	0.152
1- 5	200	1.35	0.26		
6 - 10	166	1.40	0.29		
11- 15	59	1.41	0.24		
≥ 16	18	1.32	0.26		
Ethnicity*					
Bamar	252	1.39	0.25	8.417	0.038
Mon	125	1.34	0.31		
Karen	47	1.38	0.28		
Others	21	1.38	0.17		
Marital Status*					
Single	115	1.32	0.23	7.994	0.018
Married	314	1.40	0.28		
Widowed /Divorced / Separated	16	1.44	0.25		
Single	115	1.32	0.23		
Income sufficiency***					
Sufficience	372	1.35	0.25	19.348	0.000
Insufficience	73	1.51	0.32		
Physical health ***					
Poor	13	1.73	0.41	54.408	0.000
Good	288	1.41	0.23		
Very Good	144	1.28	0.28		
Smoking					
Yes	142	1.35	0.24	1.169	0.280
No	303	1.39	0.28		
Drinking Alcohol					
Yes	19	1.35	0.26		
No	426	1.38	0.27	0.401	0.527
Thai Language Proficiency*					
Poor	103	1.42	0.26	7.102	0.029
Fair	213	1.38	0.27		
Good	129	1.34	0.26		

Table 2: Summary of logistic regression analysis predicting presence of depression and anxiety symptoms (n = 445)

	B	SE	Wald statistic	p	OR	95% CI	
						Lower	Upper
Gender							
Male (ref.)					1.00		
Female	1.56	0.43	12.89	0.00	4.75	2.03	11.11
Age	0.01	0.02	0.15	0.70	1.01	0.97	1.05
Ethnicity							
Burmese (ref.)					1.00		
Mon	0.03	0.51	0.00	0.96	1.03	0.38	2.81
Karen	-0.16	0.69	0.05	0.82	0.86	0.22	3.31
Others	-18.22	8,145.12	0.00	0.10	0.00	0.00	--
Marital status							
Single (ref.)					1.00		
Married	-0.01	0.53	0.00	1.00	1.00	0.35	2.84
Others	-0.09	1.01	0.01	0.93	0.92	0.13	6.58
Income sufficiency							
Not enough (ref.)					1.00		
Enough	-0.34	0.44	0.60	0.44	0.71	0.30	1.69
Self-rated Physical health							
Poor (ref.)					1.00		
Good	-1.76	0.80	4.79	0.03	0.17	0.04	0.83
Very good	-2.08	0.88	5.58	0.02	0.13	0.02	0.70
Thai Language Proficiency							
Poor (ref.)					1.00		
Fair	-0.84	0.46	3.34	0.07	0.43	0.18	1.06
Good	-0.89	0.57	2.40	0.12	0.41	0.14	1.27
Perceived Stress	0.269	0.04	38.75	0.00	1.30	1.20	1.41
Acculturative Stress	0.049	0.02	3.63	0.06	1.04	1.00	1.09
Constant	-6.35	1.61	15.46	0.00	0.00		

Note: -2LL = 193.884; X2 = 131.081, df = 14, p = 0.000; Nagelkerke R2 = 49.2%; Hosmer and Lemeshow test p = 0.602; Classification accuracy = 91.9%

Discussion

This cross- sectional study was undertaken to explore the prevalence of mental health problems in migrant workers from Myanmar currently working in Samut Sakhon Province of Thailand, and to identify factors that influence the risk of mental health problems in this group of migrant workers. Overall, the results highlight that this group of migrant workers self-assess as being physically healthy and lacking significant levels of depression or anxiety symptoms. Further, most do not perceive themselves as experiencing discrimination or hostility due to their ethnicity, nor stress related to cultural differences or significant financial insecurity. In general, the data supports previous work that suggests that individual characteristics contribute to the risk of developing anxiety and depressive symptoms. Indeed, gender, perceived good, or very good physical health, and lower PSS scores had a direct effect on the presence of anxiety and depressive symptoms, explaining 49.2% of the variance. What

delineates our study from others is the increased frequency of factors associated with well-being and the low frequency of risk factors associated with mental health problems.

There are several possible reasons these results differ from many previous national and international studies. An important consideration is the population involved and the type of work in which the migrant workers are engaged. A higher risk for occupational injury and abuse has been reported for agricultural work (Moyce & Schenker, 2018), construction work (Fitzgerald, Chen, Qu, & Sheff, 2013; Adhikary et al., 2015) and sex trade work (Meyer et al., 2016), leading to poorer mental health outcomes. In addition to a high risk of injury, agricultural workers are exposed to pesticides routinely used in farming (Thetkathuek & Daniell, 2016). Factory workers, fish processing workers, and those that work on fishing boats have a relatively stable group of co-workers and a relatively stable place of work, both of which differ from the circumstances relating to agriculture and construction work. Many of their supervisors are of the same ethnicity, and this could be another significant factor helping to attenuate conflict in the workplace. All the participants in this study were documented migrant workers, which introduces another stability factor. Studies with undocumented workers (Meyer et al., 2016; Harrigan, Chiu, & Amirrudin, 2017; Reijneveld, de Boer, Bean, & Korfker, 2005; Vervliet, De Mol, Broekaert, & Derluyn, 2014; Vervliet, Lammertyn, Broekaert, & Derluyn, 2014) highlight the negative impact of legal insecurity on health outcomes and the increased risk that employers may use threats of deportation during workplace conflicts. Studies with migrant worker groups reporting high rates of alcohol overuse and abuse have also shown much higher rates of mental health problems (Ismayilova et al., 2014; Britto et al., 2016).

The workplace stability experienced by the participants in this study is also reflected in the stability of the communities in which they live. The Karen and Mon ethnic groups live near each other, engage in similar social and routine group activities, creating a strong social support structure for themselves and their families. The same is seen in the Burmese communities. Social support has been shown to lower the risk of depression and anxiety symptoms and acculturative stress (Wong & Leung, 2008; Wong, Song, Leung, & Chang, 2008; Kumparatana, Cournos, Terlikbayeva, Rozental, & Gilbert, 2017). Similar findings have been published regarding social cohesion, which goes beyond the personal benefit of social support in involving workplaces and communities (Shittu et al., 2014: Hsieh, 2015). Although there are ongoing historical conflicts between the Burmese (the predominant group) and other ethnic groups in Myanmar, which could preclude social cohesion and workplace solidarity (Campbell, 2012), the various ethnic sub-groups had established communities separated by ethnicity.

The odds for meeting the criteria for mental health problems in female participants were approximately four times that of male participants. This increased vulnerability to unipolar depression and anxiety disorders in women is well documented, but still not wholly explicated. Complex interactions between hormonal, psychosocial (including gender roles, and social expectations), and geopolitical factors likely underlie some of the basis to this vulnerability. The increased use of alcohol in men to self-medicate depression and anxiety symptoms, and the decreased willingness to seek treatment for mental health issues also skew the disparity in the true prevalence rate between men and women.

Another socio-demographic variable associated with quality of life and mental health symptoms is self-rated physical health (Al-Maskari et al., 2011; Nadim et al., 2016). Most participants in this study rated their health as good or very good, whereas migrant workers who rated their health as fair or poor reported increased mental health problems (Britto et al.,

2016; Adhikary et al., 2018; Kumparatana et al., 2017). The findings indicated that participants who rated their physical health as poor were more likely to have mental health symptoms. As expected, perceptions of current stress levels were significantly correlated with HSCL-25 sub-scores for anxiety and depressive symptoms, and with ASS total and domain scores. However, in the regression model, only PSS scores contributed to the presence of mental health problems; perhaps reflecting that for this population, PSS scores capture an overall sense of well-being.

This study focused on migrant workers from Myanmar in Samut Sakhon Province, Thailand whereas most previous research focused on the mental health of Burmese refugees (Lopes, et al., 2004) or migrant workers near the border between Thailand and Myanmar (Meyer et al., 2016). However, this strength must be tempered with the potential bias inherent in the use of snowballing for recruitment, such that the data may not be representative of all migrant workers from Myanmar employed in the Samut Sakhon Province and not generalizable to migrant workers working in different labor sectors or from other countries of origin. In addition, the data collection method employed in the migrant communities, which involved snowball sampling, may have impacted data distribution. Participants tended to make referrals regarding participation to their relatives, friends, or co-workers. Thus, almost all participants perceived their social support as being at a high level. Moreover, mental health is a sensitive topic. Respondents may have responded in accordance with societal norms rather than giving full disclosure. However, many of the risk factors for mental health problems (high alcohol use, poor or fair health self-ratings, low social support) were absent in this group, which provides some confidence in the accuracy of our data.

In conclusion, the findings of this study show that the majority of the migrant workers from Myanmar in Samut Sakhon Province, Thailand, who participated in this study have adapted well to their workplaces and have settled well into their respective communities. They consider themselves to be healthy and to experience low levels of acculturative stress and financial insecurity despite a third of them reporting poor Thai language proficiency. Multiple stability factors, including workplace characteristics, the fact that they are documented, along with strong personal social support and social cohesion within their communities likely explain much of the differences between our data and those from other studies regarding migrant worker health. Our findings suggest that there is still a need to identify mental health problems early and to provide easily accessible, low-cost quality mental health services. However, some of the remedial emphasis could shift to health promotion strategies to maintain current health statuses.

The promotion of mental health could involve the use of volunteer community health workers, mobile clinics for migrant communities, bilingual (Thai and Burmese) signposting and informational documentation in health facilities, outreach services in the workplace, and the incorporation of mental health promotional activities in the workplace and/or the community (e.g., in factories and markets). In summary, policy makers and service providers need to recognize key protective factors and create increased workplace and community stability for migrant workers.

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