Prevalence of stress, anxiety and depression among Indonesian immigrant workers in Malaysia

Pinta Pudiyanti Siregar1,2, Rosnah Sutan1, Azlin Baharudin3

INTRODUCTION

During this time, there is an increase in globalization for people around the world for various reasons. Foreign workers are relatively healthy especially newer arrivals.1 However, complex procedures during the transfer process may cause them to be mental health problems.2,3 The emergence of a previously missed disease or getting a disease after moving may be a risk factor for a worker with a sudden change in situation and lifestyle.4,5 Travelling and moving is something that is both physically and mentally exhausting.6 The change of atmosphere from the place of origin to the workplace is undoubtedly challenging and stressful that influenced quality of life.7 Several studies have found many problems among migrant workers and their abandoned families. The immigrant's relatives encompass husbands, children, and mothers or families in charge of maintaining the responsibilities of these workers in their home countries.8 Migrant workers make a positive contribution to economic development, especially in rural areas. However, this does not offer goodness, especially to the children they leave behind.9 The less support towards migrant cause visible problem of anxiety and depression symptoms. Issues related to migrant becomes even more severe if the existing policy is less pro-migrant.10 Migrants, especially these workers, need support from existing social organizations and job satisfaction to help them create good mental health.11 It helps migrants with mental problems to use the existing health facilities. There are many obstacles noted in accessing health facilities, so that better handling management is needed.12 Every year, one in five people experience problems of depression, anxiety or mental illness problems.13 Risk factors for mental health problems included younger age, low monthly income and long working hours. There was a high prevalence of loneliness in migrant service workers in China, which is a big problem for the community's health. This study provides suggestions for periodic mental health evaluations in addition to the need for social support.14 Research on migrant mental health lacks; therefore, it becomes a necessity.15 Migrant workers experienced problems and trauma in accessing healthcare services. It creates an obligation of the public health sector to focus more on migrant problems from a multi-disciplinary aspect.16 Therefore, the present study aims to assess the prevalence of mental health problems among Indonesian women workers in Malaysia and identify factors that influence it.

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ABSTRACT

Introduction: Being apart from family to work in a new environment requires sacrifice and endeavor to adapt to the foreign surroundings and, therefore, may cause perturbation and tension. The present study aimed to assess mental health problems among Indonesian women migrant workers in Peninsular Malaysia and their associated factors.

Method: A cross-sectional study was conducted in three representatives of the Indonesian Government in Peninsular Malaysia: Indonesian Embassy in Kuala Lumpur and the Indonesian Consulate General in Johor Baharu and Penang. The target population was every Indonesian women worker who fulfils the inclusion criteria: reproductive age (18-45 years), legal workers, and stay in Malaysia for 12 months. A validated Indonesian Depression Anxiety Stress Scale (DASS21) questionnaire used has Cronbach’s alpha of 0.95.

Result: A total of 589 respondents participated with granted consent. The measurement of the prevalence of stress, anxiety and depression among workers was reported to be 151 (25.6%), 308 (52.3%) and 139 (23.6%), respectively. The multivariate logistic regression analysis found that younger age, longer working hours a day, and having reproductive health problems were significant predictors of negative emotional states.

Conclusion: Early screening to identify risk groups at works helps reduction of mental health incidence.

Keywords: DASS21, Indonesia, Malaysia, mental health, migrant workers.

METHOD

This study was a cross-sectional study. The data were collected between June 2017 and May 2018 by three Indonesian government representatives in Peninsular Malaysia: The Indonesian Embassy (KBRI) in Kuala Lumpur and the Consulate General of Indonesia in Johor Bahru and Penang Island. Before the study was carried out, approval for conducting the study was obtained from the University Kebangsaan Malaysia Medical Centre Research and Ethics Committee with project code FF-2017-287. Respondents were recruited by arranging passport renewal at representatives of the Indonesian government in Malaysia. The Indonesian Embassy in Kuala Lumpur provided services to the Indonesian people in Kuala Lumpur, Selangor, Perak, Terengganu and Kelantan. Indonesian Consulate General in Pinang Island, located in George Town providing services and protection to Indonesian citizens in north Malaysia such as Pinang, Kedah and Perlis. Indonesian Consulate General in Johor Bahru is located in Johor Bahru city and serves Johor Bahru, Melaka, Negeri Sembilan and Pahang areas. The target population of this study is every Indonesian women worker who 1) on reproductive age (18-45 years) who come to the study place when the study is carried out, 2) agree to follow the study, 3) legal workers/have the legal permit and 4) have been in Malaysia for a minimum of 12 months. We excluded participants who did not give consent to join the study.

Respondents were selected randomly from the list of names obtained from the study sites. One researcher hung around for any queries or needed assistance to ensure the respondent’s understanding of the questionnaire. When the passport applicants arrived, the researchers introduced themselves and asked the respondents whether they would join the study. Respondents who met the criteria were invited to participate, and the agreement form was handed. Once they agreed, the researcher asks about the age, permit and length of stay in Malaysia. For those who did not understand the questions, the researcher explains them in more detail. Some respondents have the obstacles to answer, such as difficulty reading because they did not carry glasses or could not read too much. Hence, the researcher helps reading the questions to the respondent. Unprepared for the immigration process happened mainly among the respondents who came from the type of housemaids and those who had lower education such as no history of formal education, primary school and junior high school education level.

It was reported that there were two million foreign workers in Malaysia, and 50% of them were Indonesian workers. Half of these Indonesian workers were legal Indonesian immigrant workers, and 63% encountered health access problems.a Sample size was calculated using the formulae:

\[ n = \frac{Z^2 \cdot P \cdot (1-P)\sqrt{d}}{d^2} \]

Where:
- \( n \) = sample size,
- \( Z \) = statistic for confidence stage = 1.96,
- \( P \) = prevalence of problem = 0.63,
- \( d \) = accuracy = 0.05,

Therefore total sample size required was 226 respondents.

Data were collected using a self-administered questionnaire in the Indonesian language version questionnaire. Religiosity was assessed based on 17 questions on respondents’ knowledge about Islam and validated by Usman Jakfar with Cronbach alpha 0.70. Respondents had experienced the symptoms of reproductive problems in between the last 12 months. These reproductive health problems were validated by gynecologists and focused on menstrual problems, vaginal discharge, family planning, STD/HIV-AIDS, and a few checklist questions. Analysis used by total questions answered as yes. The DASS 21 question is one of the most widely used tools to assess stress, anxiety and depression in research worldwide. Indonesian DASS21 internal reliability for Cronbach alpha is 0.95.15 Nieuwenhuisen et al. proved that DASS21 is suitable for occupational health, especially for workers with mental health problems with Cronbach’s alpha values stress, anxiety and depression were 0.93, 0.88 and 0.94, respectively.18

RESULTS

Sample characteristics

A total of 589 respondents were willing to join the study and met the criteria. The respondents came from 12 states in Malaysia, the majority came from Kuala Lumpur, n = 107 (18.1%), Selangor n = 124 (21.1%), Penang, n = 168 (28.5%) and Johor Bahru n = 190 (32.3%). Participant’s ages were between 19 to 45 years, and the mean age is 27.21±0.29. The largest group is between the ages of 21 to 29 years (369 / 62.9%). Moreover, the lowest age group is less than 20 years (57 / 9.7%). Three-quarters of respondents were at the senior high school level (442/75%), followed by junior high school (66/11.2) and elementary school (low school = 45 / 7.6%). 2.5-2.7% per cent only (n =15-16) those who have no education or have a degree education upwards. The length of stay in Malaysia is between 1 and 30 years, with mean scores is 4.19±0.14 years. The working period is between 2 and 21 hours, with the mean value being 11.42±0.01 hours a day. The highest origin was from Central Java, North Sumatra and East Java with frequency values of 177 (30.1%), 154 (26.1%) and 101 (17.1%), respectively.

Mental health

Figure 1 illustrates the Depression, Anxiety and Stress (DASS21) level of mental health problems. The prevalence of stress, anxiety and depression among workers is 154 (25.6%), 311 (53.3%) and 142 (23.6%), respectively. The prevalence of mild mental health problems was 12 per cent. The most prevalent of anxiety at a moderate level is severe and very severe mental health problems ranging from 25%, 8.6%, and 6.4%, respectively.
Mental health and factors associated

Table 1 showed the prevalence of Depression, Anxiety and Stress (DASS21) based on sociodemographic characteristics. Young age tends to have a higher prevalence compared to a later age. Prevalence of stress is high at 20-29 years, while prevalence anxiety is the best at less than 20. If DASS21 prevalence is made based on the length of stay in Malaysia, it will be found that the longer stays in Malaysia, the lower the prevalence of DASS21 prevalence.

The results of the bivariate over continuous factor test that affect the DASS21 problems found to be significant are the age, length of stay in Malaysia, number of working hours a day, working days a week, and reproductive health problems. Religiosity has a significant relationship with stress and anxiety. According to the multivariate logistic regression analysis, younger age, long hours worked a day, and reproductive problems were significant predictors of negative emotional states (Table 2).

### Table 1. Mental health prevalence by sociodemographic characteristics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mental health prevalence</th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stress (n=151)</td>
<td>Anxiety (n=308)</td>
<td>Depression (n=139)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 30 years</td>
<td>131</td>
<td>86.8</td>
<td>259</td>
<td>69.9</td>
</tr>
<tr>
<td>≥ 30 years</td>
<td>20</td>
<td>13.2</td>
<td>49</td>
<td>30.1</td>
</tr>
<tr>
<td><strong>Length of stay in Malaysia</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 3 years</td>
<td>86</td>
<td>56.9</td>
<td>38</td>
<td>12.3</td>
</tr>
<tr>
<td>&gt; 4 years</td>
<td>65</td>
<td>43.1</td>
<td>270</td>
<td>87.7</td>
</tr>
<tr>
<td><strong>Length hours of work a day</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 11 hours (n=127)</td>
<td>21</td>
<td>13.9</td>
<td>37</td>
<td>12.0</td>
</tr>
<tr>
<td>&gt;11 hours (n=466)</td>
<td>130</td>
<td>86.1</td>
<td>271</td>
<td>88.0</td>
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<tr>
<td><strong>Length days of work in a week</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 5 days (n=356)</td>
<td>99</td>
<td>65.6</td>
<td>199</td>
<td>64.6</td>
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<tr>
<td>&gt;5 days (n=237)</td>
<td>52</td>
<td>34.4</td>
<td>109</td>
<td>35.4</td>
</tr>
<tr>
<td><strong>Religiosity score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤13</td>
<td>85</td>
<td>56.3</td>
<td>193</td>
<td>62.7</td>
</tr>
<tr>
<td>&gt;13</td>
<td>66</td>
<td>43.7</td>
<td>115</td>
<td>37.3</td>
</tr>
<tr>
<td><strong>Reproductive problems</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤3 problems</td>
<td>82</td>
<td>54.3</td>
<td>189</td>
<td>61.4</td>
</tr>
<tr>
<td>&gt;4 problems</td>
<td>69</td>
<td>45.7</td>
<td>119</td>
<td>38.6</td>
</tr>
</tbody>
</table>
DISCUSSION

The results of this study found that the prevalence of stress, anxiety and depression among workers are 154 (25.6%), 311 (53.3%) and 142 (23.6%), respectively. These study results are supported by the other study that examined foreign workers in the United Arab Emirates, using the inquiry question Depression Anxiety and Stress Scale (DASS 42) found that the prevalence of depression was 25.1%. Even in other studies on immigrant workers in South Korea, mental health values that reached the stage of severe depression were 33.7% due to lack of social support. However, this result was in contrast to a study that found that migrants are less likely to have mental disorders than non-migrants. This result is possible because migrants have gone through difficult times, so they are easier to adapt. Other studies also found that immigrant workers who lived up to 15 years tended to have mental disorders than those who had just arrived at their destination.

This study found that the factors that predict mental problems were at a young age. Age is a predictor factor for mental health problems supported by other studies conducted on migrant workers. This result contradicts other studies on migrants in Indonesia, which found that older age is more likely to develop depression.

Another predictor is a working period of more than 11 hours/day. This working period was also supported by a study on migrant workers in China that found mental problems up to 34.4%. The results of multiple logistic regression, risk factors are included younger age and working more than 8 hours a day. This can be understood that there is indeed a limit to work hours. The more time passes the limit, the more fatigued someone would feel.

In this study, it was found that the factors that were predictors of mental problems in female migrant workers were reproductive health problems. This result was supported by research that found that women who migrate have higher mental problems, especially those related to the postpartum period. Migrants increase the tendency for problems in the postpartum period and increase the risk for postpartum depression. Another study found that perinatal problems are related to the health problems of migrant women. However, other studies have found that reproductive problems are not significantly associated with depression.

The limitation of this study was that the data was obtained only when the study was conducted, which cannot represent the overall results over time. For example, the researcher only looks at the mental health status of workers in Malaysia; workers may have had these problems since they were in Indonesia. There needs to be a further cohort study to follow Indonesian workers from Indonesia and come to Malaysia until they work and finally return to Indonesia. Sharing experiences they have encountered during work can help see what is good that needs to be continued and what is not good to be corrected. This longitudinal study also helps find out the long-term changes of workers. Also, the health check results every year can help see the tendency of the disease suffered by the workers.

Further studies related to the intervention of workers should focus on many scopes of activities for implementation that can reduce their mental problems. The means for the Indonesian Embassy are to provide a continuous education program for Indonesian citizens in Malaysia, especially workers. Skills education is essential for them when they return to Indonesia. The welcome program for workers who have just come to Malaysia is also good to be held routinely. This program is suitable for introducing the situation in Malaysia and what regulations that Indonesian citizens must obey. There is a need for experimental studies that can see the extent to which religious education and life skills education can help overcome the problems of Indonesian workers. Studies carried out while providing valuable exposure can help find the best solution to overcome the problems of migrant workers. The ease of attainment of health care is one thing that also helps prevent and early action to reduce mental problems in women.

CONCLUSION

Several known Non-Governmental Organizations (NGOs) are available to help as a means for workers to adapt in Malaysia. Many of these workers are not even familiar with this NGO. The active participation of workers in NGOs helps provide the information they need. The NGO activities are supported by the Indonesian Embassy and the Indonesian Consulate in Malaysia. It is a way for
Indonesian NGOs to be more proactive in approaching migrant workers to benefit from the NGO’s existence. Programs that educate and benefit workers should be improved. Setting a good collaboration with the local government on health’s needs assessment after immigration screening will help to improve awareness of nearby health care facilities. Providing helpful information for migrant workers helps them to overcome their difficult times outside the country.

**DISCLOSURE**

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**Author contribution**

PPS contributed to concepts, design, literature search, data acquisition, statistical analysis, manuscript preparation, and manuscript editing. RS contributed in concepts, design, definition on intellectual content, manuscript editing and manuscript proofreading. AB contributed to concepts, technical content, and manuscript proofread.

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All authors certify that they have NO affiliations with or involvement in any organisation or entity with any financial interest (such as honoraria; educational grants; participation in speakers’ bureaus, membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

**REFERENCES**


