

## THE HEALTH RISK BEHAVIOR OF MYANMAR MIGRANT WORKERS IN MAE SOT, TAK, THAILAND: A PATH ANALYSIS STUDY OF THE INFLUENCES OF DEPRESSION, ANXIETY, STRESS AND COPING STYLES

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**Abstract:** This study was conducted in November, 2011, to investigate the influence of Myanmar migrant workers' level of depression, anxiety and stress on their practice of certain health risk behaviors, both directly and indirectly, being mediated by their coping styles. The sample consisted of 300 Myanmar migrant workers in Mae Sot, Tak and who volunteered to fill in the study's questionnaire. The results obtained showed that these migrants reported (1) low level of depression, anxiety and stress (2) were more likely to employ problem-focused coping than emotion-focused coping when dealing with stressful situation in their life (3) their depression anxiety, stress were positively associated with their practice of health risk behaviors such as smoking, betel quid chewing, drug using, and suicidal ideation. The implications of the findings with regard to how Myanmar migrant workers in Mae Sot cope with their depression, anxiety, stress in their daily life is discussed.

**Keywords:** Health Risk Behaviors, Coping Skills, depression, anxiety and stress

### Introduction

Mae Sot is a labor town which is located in the Tak province on the Thai-Myanmar border. Tak province is estimated to have around 200,000 Myanmar workers, with approximately 70,000 to 100,000 working in Mae Sot. The reason why there are so many Myanmar migrant workers living in Mae Sot is because of the town's easy access from Myanmar. For these migrant workers, it is simply crossing a bridge into Thailand and obtaining one day passes which are available at official check points. According to a report by the Federation of Trade Union Burma (FTUB, 2004), there are about 200 factories in Tak province and Myanmar workers constitute approximately 95 percent of the work force.

For many Myanmar people, life is very difficult in their home country as it is not easy to find employment. This is the primary reason why so many Myanmar people move to the Thai border area where jobs are available to them. There are many types of

job available for Myanmar migrant workers including sea food processing, plantation and agriculture, domestic and factory work.

Migrating to Thailand involves profound changes to the Myanmar migrant worker's social, environmental, and cultural contexts. Many migrant workers are living without their families or existing social networks (Griffin & Soskolne, 2003). They often live in cramped dormitories and enjoy few rights. They are often subjected to high levels of exploitation, including long hours and wages well below the legally mandated minimum wage in Thailand. Moreover, living conditions in factory dormitories are often crowded and unsanitary and the food/rice provided by the employers is often of poor quality. Even so, salary deductions for food and accommodation are made at rates often disproportionate to actual cost. (Pim, 2001)

In addition, for young migrants, life in Thailand limits their opportunities for normative behaviors such as going out during holidays and socializing with friends. The majority of them are poor, living away from their families, work in jobs that Thai nationals do not want to fill, and earn wages that are far less than the minimum wage mandated for Thai workers. No wonder then that they complain of loneliness, of being homesick, being depressed, and stressed in their new environment. Some are unable to access government health services and live in stressful environments, such as poor working and housing conditions (Win et al., 2002). Such conditions are the catalysts for many young Myanmar workers to engage in health risk behaviors such as smoking, excessive alcohol consumption, and psychical inactivity (Chen et al., 2004; Paavola et al., 2004).

### Objectives of the Study

The objectives of the study are:

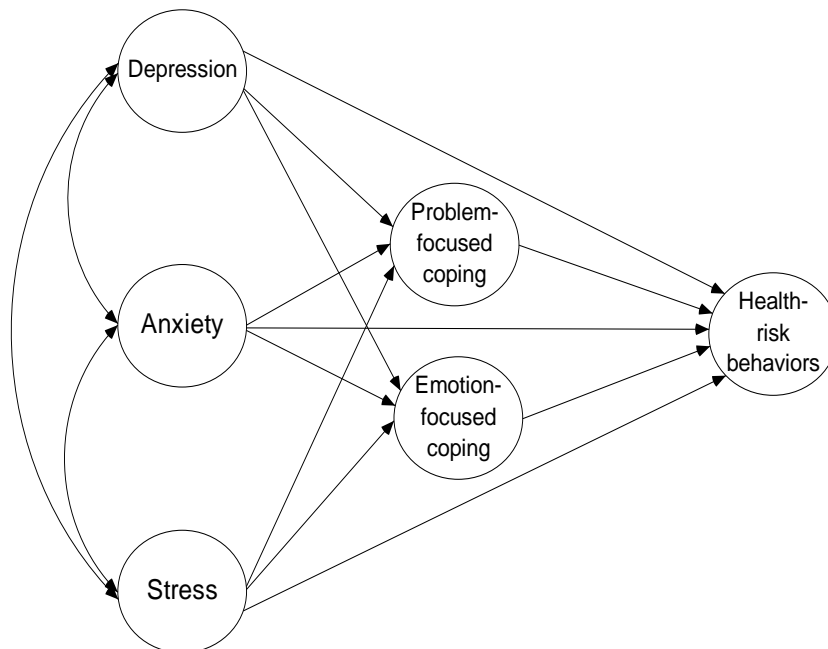
1. To investigate the level of stress, anxiety and depression among Myanmar migrant workers in Mae Sot, Tak province, Thailand;
2. To investigate the direct influences of these migrant workers' levels of depression, anxiety and stress on their practice of certain health risk behaviors;
3. To investigate the indirect influences of these migrant workers' levels of depression, anxiety and stress levels, being mediated by their coping styles, on their practice of certain health risk behaviors.

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**Scope of the Study**

As a counseling psychology student from Myanmar, the researcher is interested in investigating and understanding the psychological problems (depression, anxiety, and stress) faced by Myanmar migrant workers in Thailand. In 2010, the researcher had the opportunity to observe firsthand the plight of Myanmar migrant workers in Tak province during her 6-months counseling internship course. In addition, the researcher is a migrant herself and had worked in a factory in Tak province in the past. From these experiences, the researcher suspects/believes that the level of psychological problems experienced by Myanmar migrant workers will affect their ability to cope with their problems, and subsequently their decision to engage in health risk behaviors.

**Conceptual Framework**



**Figure 1: Path Model of Myanmar Migrant Workers’ Engagement in Health-risk Behaviors as A Function of The Direct and Indirect Influences (Being Mediated by Their Coping Styles) of Their Levels of Depression, Anxiety, and Stress**

**Research Hypotheses**

The model hypothesizes that the Myanmar migrant workers’ engagement in health-risk behaviors is influenced both directly and indirectly by the levels of depression, anxiety, and stress they experience. Specifically, the model hypothesizes that:

1. Their levels of depression, anxiety, and stress will have direct positive relationships with their engagement in health-risk behaviors, such that the higher their levels of depression, anxiety, and stress, the higher their reported engagement in health-risk behaviors;

2. Their levels of depression, anxiety, and stress will have indirect relationships with their engagement in health-risk behaviors, such that the higher their levels of depression, anxiety, and stress, (a) the more they will employ an emotion-focused coping style (and the less they will employ a problem-focused coping style) and (b) the more they employ an emotion-focused coping style (and the less they employ a problem-focused coping style), the higher their reported engagement in health-risk behaviors.

**Research Methodology**

*1. Participants of the Study*

The participants of the study were 300 Myanmar migrants who were working in the Mae Sot. All the participants volunteered to fill in the study’s questionnaire of the 300 participants, 165 (55%) were males and 135 (45%) were females. Their ages ranged from 15 years to 35 years, with the mean age within

the interval of 20 to 29 years.

*2. Instrument*

The research instrument employed in this study was a four part self-administered survey questionnaire.

Part 1 consisted of 5 items designed to elicit information about the participant’s gender, age, marital status, educational attainment, and lengths of stay in Thailand.

Part 2 consisted of the 48-item Coping Inventory for Stressful Situations (CISS; Endler & Parker, 1990) which is a self-report measure of Emotion-, Task-, and Avoidance-oriented coping.

The CISS was developed from both theoretical and empirical bases, and has been used in a variety of research and applied settings. For the purpose of this study, only the Task (problem-focused)- and Emotion-oriented (emotion-focused) coping factors were used. Both the problem-focused and emotion-focused coping factors are operation by 16 items each. Each of the 32 items is to be scored on a 5-point Likert scale ranging from 1=not at all, 2=seldom, 3=sometimes, 4=often, 5=very much, with high scores indicating higher frequency of usage of that coping style.

Part 3 consisted of the 21-item Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1995) by. The DASS-21 consists of three self-report sub-scales designed to provide relatively pure measures of the three related negative affective states of depression, anxiety, and stress. Each sub-scale is composed of seven items written to reflect negative affective symptoms experienced over the past week. Each item is to be scored on a 4-point scale ranging from 0= did not apply to me at all, to 3= applied to me very much or most of the time. The final score for each of the three sub-scales of anxiety, stress and depression was computed by summing across the items that make up that sub-scale and multiplying the summed score by two.

Part 4 consisted of the 16-items that assess the presence of the health risk behavior of cigarette use, alcohol use, and drug use, betel quid chewing and suicidal ideation. These variables were to be operation primarily on Likert-type scales with high scores indication high frequencies of cigarette use, alcohol use, drug use, betel quid chewing and suicidal ideation.

### 3. Data Collection Procedure and Data Analysis

The researcher herself went to the Tak province and conducted the data collection in the migrant communities. The inclusion criteria for respondents consisted of the following: (a) Legally registered Myanmar migrant worker in Tak, (b) between the ages of 15 and 35 years (c) male or female, (d) able to read and write Myanmar (Burmese language), and (e) willing to cooperate in this survey. Upon receipt of the completed questionnaires, the researcher inspected each questionnaire to check for possible errors. Only valid questionnaires were subsequently subjected to statistical analysis.

## Results

In order to investigate for gender differences for the variables of problem-focused coping, emotion-focused coping, depression, anxiety, and stress, GLM multivariate analysis of variance (MANOVA) was conducted. The results showed that there was an overall gender effect for the five variables combined,  $F(5,294)=2.53$ ,  $p<.05$ . Follow-up tests of between-

subjects effects showed that gender has a significant effect for the dependent variable of anxiety only,  $F(1,298)=5.55$ ,  $p<.05$ . Examination of the marginal means showed that female respondents reported higher level of anxiety ( $M=0.87$ ) than their male counterparts ( $M=0.70$ ) in dealing with stressful situations in their life. Male and female respondents do not differ on their problem-focused coping and emotion-focused coping ( $p>.05$ ).

### Path Analysis

In order to test the hypothesized direct and indirect relationships represented by the path model depicted in Figure 1, a series of path analysis via regression analysis were conducted. The results of these path analyses are presented in Figures 2, 3, 4 and 5 (see all figures in last page).

#### Smoking

The results showed that the respondents' level of depression is directly and positively associated with the number of days that they smoked and the number of cigarettes that they smoked per day. Thus, the higher their reported level of depression, the more days in a month that they smoked cigarettes (Beta = .36) and the more cigarettes they smoked per day (Beta = .26). Level of anxiety is found to be directly and negatively associated with the age of smoking uptake. Thus, the higher the level of anxiety reported by the respondents, the younger they were when they first started smoking.

The respondents' levels of anxiety and stress are found to be positively associated with their use of emotion-focused coping. Thus, higher their reported levels of anxiety (Beta = .24) and stress (Beta = .44), the more they tended to employ an emotion-focused style of coping to deal with their life situations. Level of anxiety is also found to be negatively associated with problem-focused coping. Thus, the higher their reported level of anxiety, the less they tended to employ a problem-focused style of coping to deal with their life situations (Beta = -.27). Both problem- and emotion-focused coping were not found to be significantly related to the three smoking variables of 'age when start smoking', 'days smoked cigarettes', and 'number of cigarette smoked per day.'

#### Chewing betel quid

The results showed that the respondents' level of depression is directly and negatively associated with the age at which they reported starting chewing betel quid. Thus, the higher the level of depression reported by the respondents, the younger they were when they first started chewing betel quid (Beta = -.17). The respondents' levels of anxiety and stress are found to be positively associated with their use of emotion-focused coping. Thus, higher their reported levels of anxiety (Beta = .24) and stress (Beta

= .44), the more they tended to employ an emotion-focused style of coping to deal with their life situations. Level of anxiety is also found to be negatively associated with problem-focused coping. Thus, the higher their reported level of anxiety, the less they tended to employ a problem-focused style of coping to deal with their life situations (Beta = -.27). Both problem- and emotion-focused coping were not found to be significantly related to the three betel quid chewing variables of 'age when started chewing betel quid', 'days chewed betel quid', and 'number of betel quid chewed per day.'

#### Alcohol consumption and drug usage

The results showed that the respondents' level of stress is directly and positively associated with the number of times they reported using recreation drugs. Thus, the higher the level of stress reported by the respondents, the more time they reported using recreation drugs (Beta = .15).

The respondents' levels of anxiety and stress are found to be positively associated with their use of emotion-focused coping. Thus, higher their reported levels of anxiety (Beta = .24) and stress (Beta = .44), the more they tended to employ an emotion-focused style of coping to deal with their life situations. Level of anxiety is also found to be negatively associated with problem-focused coping. Thus, the higher their reported level of anxiety, the less they tended to employ a problem-focused style of coping to deal with their life situations (Beta = -.27). Both problem- and emotion-focused coping were not found to be significantly related to the three variables of 'times alcohol drunk', 'times used marijuana', and 'times used recreation drugs.'

#### Suicide ideation

The results showed that the respondents' level of anxiety is directly and positively associated with (1) the number of times they planned suicide, (2) the number of times they attempted suicide, and (3) the number of times their suicide attempt resulted in injury. Thus, the higher the level of anxiety reported by the respondents, the more time they reported planning suicide (Beta = .29), the more time they actually attempted suicide (Beta = .20), and the more time their suicide attempts resulted in injury (Beta = .20). Their level of depression is also found to be directly and positively associated with how often they had considered suicide. Thus, the higher the level of depression reported by the respondents, the more often they considered suicide (Beta = .24).

The respondents' levels of anxiety and stress are found to be positively associated with their use of emotion-focused coping. Thus, higher their reported levels of anxiety (Beta = .24) and stress (Beta = .44), the more they tended to employ an emotion-focused style of coping to deal with their life situations. Level

of anxiety is also found to be negatively associated with problem-focused coping. Thus, the higher their reported level of anxiety, the less they tended to employ a problem-focused style of coping to deal with their life situations (Beta = -.27). Both problem- and emotion-focused coping were not found to be significantly related to the four suicide ideation variables of 'how often considered attempting suicide', 'how often made suicide plan', 'number of times actually attempted suicide', and 'number of times attempted suicide resulted in injury.'

## **Summary and Discussion of Findings**

### *Problem-focused and emotion-focused coping styles*

The findings from the present study indicated that the respondents were more likely to employ problem-focused coping than emotion-focused coping when dealing with stressful situations in their life. The study by Schonpflug (2002) showed that although migrants tended to use both problem-focused coping and emotion-focused coping to deal with their daily stressors, they preferred a problem-coping style than emotion-focused coping to manage their stress when they were trying to adapt to their new environment. As the purpose of their migration to Thailand is to seek jobs and to earn money, the main problems they encounter in their daily lives are financial ones and the main stressors they have to cope with is the stress associated with their financial problems. Since problem-focused coping involves doing something directly to cope with these problems, such a coping style might translate to actual behavior such as seeking a job, working overtime to earn more money, sharing a room with friends or living in the factory dormitory to save money. Also, Myanmar migrants generally come from poor families and are used to living in poverty, with stress and other aversive challenges a part of their daily lives. Since their life conditions in Thailand are much better than their life conditions in Myanmar, they might not see the challenges they face in Thailand as serious and as such have little difficulty in handling these difficulties. Their resiliency (borne out of their poverty in their home country) plus their ability to handle these difficulties in a practical way might not encourage them to focus on their emotions or to employ emotion-focused coping but rather to focus on ways on how to take practical steps to solve problems in their lives.

### *Depression, anxiety, and stress*

The study's findings also showed that migrant respondents reported generally low levels of depression, anxiety, and stress experienced in their life. Their reporting of lower levels depression,

anxiety, and stress experienced could be due to changes to the Thai immigration laws that have made the lives of these migrant workers more secure in Thailand. For example, the Thai authorities have recently allowed Myanmar migrant workers to hold temporary passports or legal travel documents so that the migrant who can afford a temporary passport can travel around in Thailand without the stress and worry over their security. The depression, anxiety, and stress that are often associated with the fear of being arrested and deported as illegal 'aliens' have clearly lessened due to such positive changes to the Thai immigration laws enacted in recent years. Thus, it appears that the current status of Myanmar migrants in Mae Sot has improved leading to lower levels of depression, anxiety and stress experienced.

The reporting of generally low levels of depression, anxiety, and stress by these migrant workers also appears to reflect the direct positive flow-on effect of their propensity to employ problem-focused coping rather than emotion-focused coping to deal with stressors. For the Myanmar migrant workers working in Mae Sot along the Thai-Burma Border, there are many NGOs and CBOs that are presently helping these migrant workers with their health, educational and psychosocial needs. There are more than 50 migrant schools, one migrant clinic and two counseling services in Mae Sot. The migrants in Mae Sot can access these services free of charge. The freedom to access these services (receiving free counseling, free education and free medication) could be the main reasons for the present study's migrants to use problem-focused coping rather than emotion-focused coping in dealing with the stressors they encounter in their daily lives.

### *Gender*

The present study showed that male and female migrants did not differ significantly in their preference for either problem-focused coping or emotion-focused coping. That is, for both male and female migrant workers, there appears to be a higher preference to employ a problem-focused style of coping rather than an emotion-focused coping style. These findings are not in line with those obtained from past research which showed that men are more likely than women to use problem-focused coping and women tended to use emotion-focused coping more than men (Porter & Stone, 1995; Endler & Parker, 1990; Ptacek, Smith & Zanas, 1992). A possible reason for the present study's findings may simply be due to the fact that the Myanmar migrant workers, regardless of being male or female, have to work hard and struggle with their lives in Thailand. So, all migrants (both male and female) who work in the Mae Sot area are subjected to the same job-related stressors such as being

discriminated against by the local people, working long hours (often more than the legal working hours), with wages well below the legally mandated minimum wage in Thailand, etc. That is, all the migrants face very similar stressors regardless of their gender, and thus seek similar ways to cope with these daily stressors.

The findings of the study also showed that female migrants reported higher levels of anxiety than their male counterparts in dealing with stressful situations in their life. These findings are in line with those obtained from past research which showed that female migrants tended to be more anxious than their male migrants during their stay in Thailand (Khine, 2009). The reasons for these gender differences are obvious. For the male migrants, their main concerns are financial ones. For the female migrants, their concerns are primarily about their security, since sexual assaults, rape or being trafficked for sexual exploitation are frequent occurrences. Fear restricts their movements and they are unable to travel on their own like their male counterparts. In addition, for female migrants who have families in Thailand, they have to take on multiple roles including that of a worker, a mother, and a wife. These factors all contribute to their higher level of stress when compared to the male migrant workers.

### *Health risk behaviors*

#### Cigarettes

The findings from the present study showed that the respondents' reported level of depression is directly and positively associated with the number of days that they smoked and the number of cigarettes that they smoked per day. Thus, the higher their reported level of depression, the more days in a month that they smoked cigarettes and the more cigarettes they smoked per day. These findings are in line with those obtained by Fucito and Juliano (2009) which showed that individuals who are vulnerable to depression are more motivated to smoke in response to mood fluctuations than less vulnerable individuals. For Myanmar migrant workers who participated in the present study, most of them work long hours, live in very crowded dormitories, receive a low income, experience low emotional support from their families, which taken together make it very difficult for them to live in and to adapt to their new environment. Such conditions are the major catalysts for migrants to develop depression which in turn is associated with an increased likelihood of becoming a smoker. Thus, it is not surprising then that the migrant worker might be motivated to smoke in order to improve his/her negative mood as a way to cope with the depression resulting from poor working and living conditions

(Anda et al., 1990; Borrelli et al., 1998; Breslau, 1991).

#### Betel quid chewing

The study's findings showed that the respondent's level of depression is directly and negatively associated with the age at which they reported starting chewing betel quid. Thus, the higher the level of depression reported by the respondents, the younger they were when they first started chewing betel quid. Pharmacological studies have shown that the betel nut contains sedative and antidepressant properties which many chewers claim suppress hunger and thirst, while at the same time stimulate and energize the body. For the migrant worker, one affordable and cheap way to counter the feelings of depression experienced in their everyday life is to chew betel quid. Also, betel is available everywhere near their working environment, and many workers keep them in their working hours to chew when they get hungry. Betel chewing among Myanmar migrant workers is not considered to be a bad habit like smoking, drinking, and drug taking. Indeed, betel chewing is considered to be an acceptable custom passed down from generation to generation. Myanmar people used to chew it in order to fresh their mouths after meals. However, the addictive properties of the betel quid mean that people chewed betel quid not only after meals but on a regular basis during the day. Mostly it is people in rural areas who are addicted to betel chewing because of their low education and lack of knowledge about the risks of the addictive properties of betel quid chewing.

#### Drug taking

The results showed that the respondents' level of stress is directly and positively associated with the number of times they reported using recreational drugs. Thus, the higher the level of stress reported by the respondents, the more times they reported using recreational drugs. These findings corroborate those obtained from past research which showed that the experience of acute and chronic stress motivates an individual to abuse drugs (Tomkins, 1996). The lives of the migrant workers in the present study are often stressful as they have to live and work under harsh conditions (such as sharing accommodation with other people in cramped dormitories), with no immediate family support and little social support apart from their migrant colleagues (Griffin & Soskolne, 2003). These kinds of stressors can motivate them to take drugs as a means of dealing with their loneliness, of being away from their families, and of coping with the stress arising from the very harsh conditions in their working environment. According to Adler et al. (1975), a stressful experience such as social separation leading

to isolation in early life can increase an individual's vulnerability to drug use.

#### Suicide ideation

The study's findings showed that the respondents' level of anxiety is directly and positively associated with (1) the number of times they planned suicide, (2) the number of times they attempted suicide, and (3) the number of times their suicide attempt resulted in injury. Thus, the higher the level of anxiety reported by the respondents, the more times they reported planning suicide, the more times they actually attempted suicide, and the more times their suicide attempts resulted in injury. Most of the Myanmar migrant workers working in Mae Sot are illegal migrants. No wonder then that the most common worries these migrants have are concerns about their security, and in particular, their fear of being arrested and deported. They simply live in fear of the Thai police. So, even when they are being exploited at work, abused or given lower wages than they should get, they dare not complain to their Thai employers because of their illegal status. At the same time, they also worry about their families back in their home country since if they are underpaid they would not be able to remit enough finances to support their families adequately. Being caught in a dilemma of being exploited, underpaid and not being able to support one's family, while at the same time with no legal recourse to justice and fairness, often act as a catalyst for the contemplation of suicide. Past research has shown that the higher anxiety level experienced by migrants is a risk factor relating to their suicide attempts (Sareen et al., 2005b) and those migrants who have attempted suicide are at a higher risk of committing suicide in the future (Suominen et al., 2004).

#### **Implications**

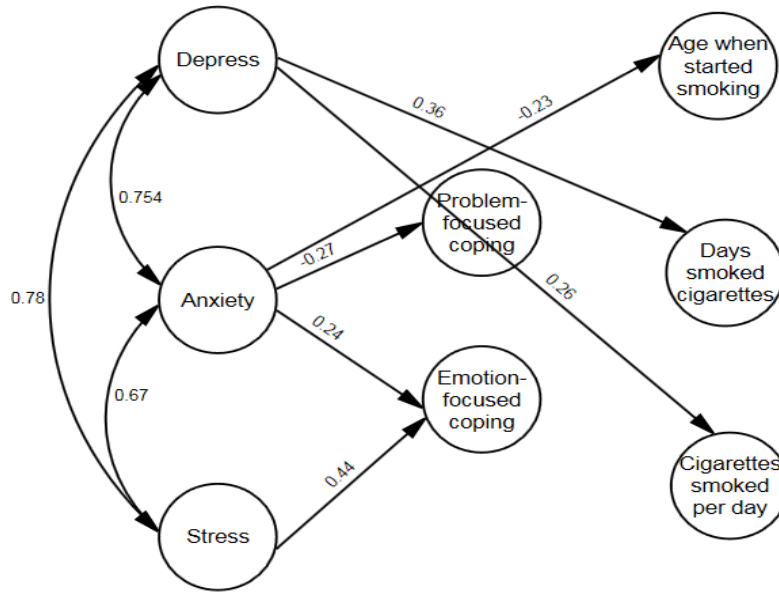
There are a number of important implications arising from the study's findings. First, the present study indicated that migrant workers do employ coping strategies to handle the stressors they encounter in their daily life in Thailand. In particular, the findings showed that the Myanmar migrant respondents managed their daily stress by using problem-focused coping rather than emotion-focused coping mechanisms. According to Folkman, Lazarus, Gruen and DeLongis (1986), problem-focused coping is the most useful coping style to deal with daily stressors when there are reasons to try to change those stressors and when they are perceived to be controllable. When using this method of coping, the person adopts new behaviors in order to modify, minimize or avoid the situation which is causing the problem (Zeidner & Endler, 1996). For the migrant respondents in the present study, their tendency to employ problem-

focused coping suggests that they perceived the stressors in their daily lives as controllable. As mentioned earlier, there are a number of agencies set up in Mae Sot district to help these migrants and whose services they can access for free. The freedom to access these services (receiving free counseling, free education, and free medication) could be the main reason for the present study's migrants using problem-focused coping rather than emotion-focused coping in dealing with the stressors occurring in their daily lives.

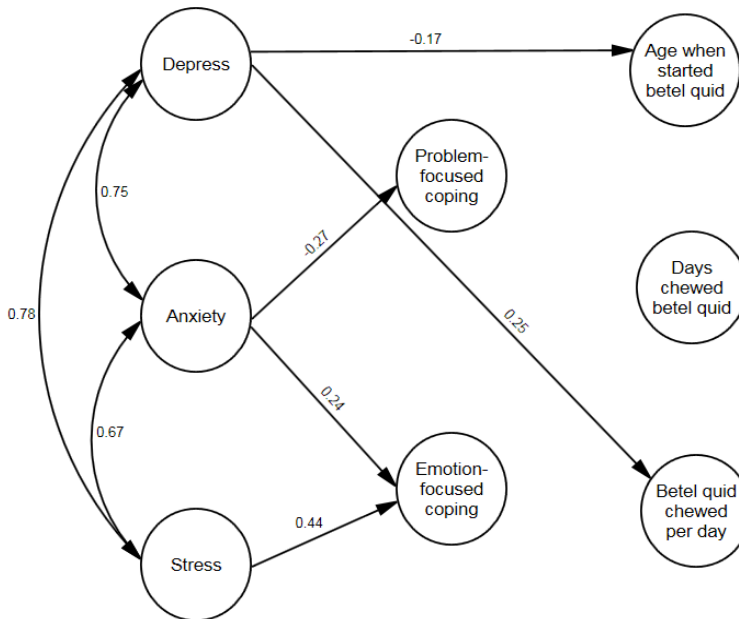
Second, the study's findings that female migrants reported higher levels of anxiety than their male counterparts may have implications for the way female migrants handle the stressors in their lives. According to Seeman (1997), based on her examination of the female hormone, the cyclical fluctuations of estrogen and progesterone hormone in the female body heighten the response to stress, which confers vulnerability on the person. In addition, the psychological and cultural factors playing a role in a woman's propensity towards anxiety is different from those that apply to men. Women are less assertive, more expressive and less controlling of their emotions and thus more vulnerable to stress, as well as in the expression of fear. Thus, the finding from the present study that women migrants reported higher levels of anxiety point to their lower ability to control emotions in their life when compared to their male counterparts.

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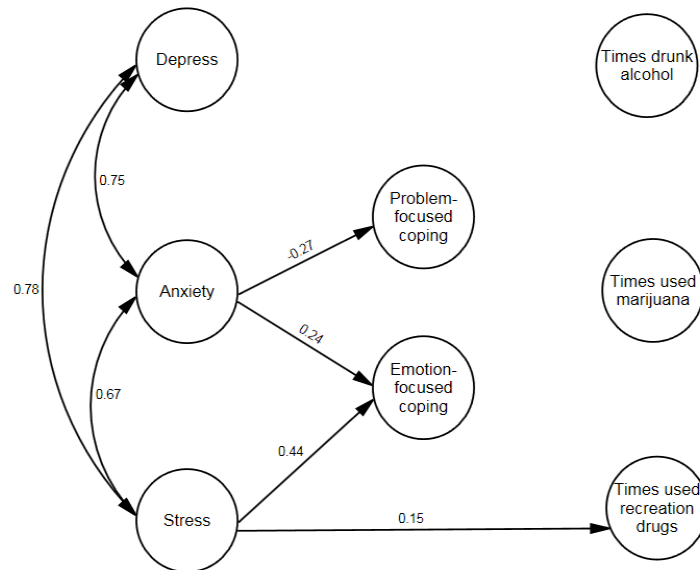


**Figure 2: Path Model of Respondents' Smoking Behavior as A Function of The Direct and Indirect Influences (Being Mediated by Their Coping Styles) of Their Levels of Depression, Anxiety, and Stress**

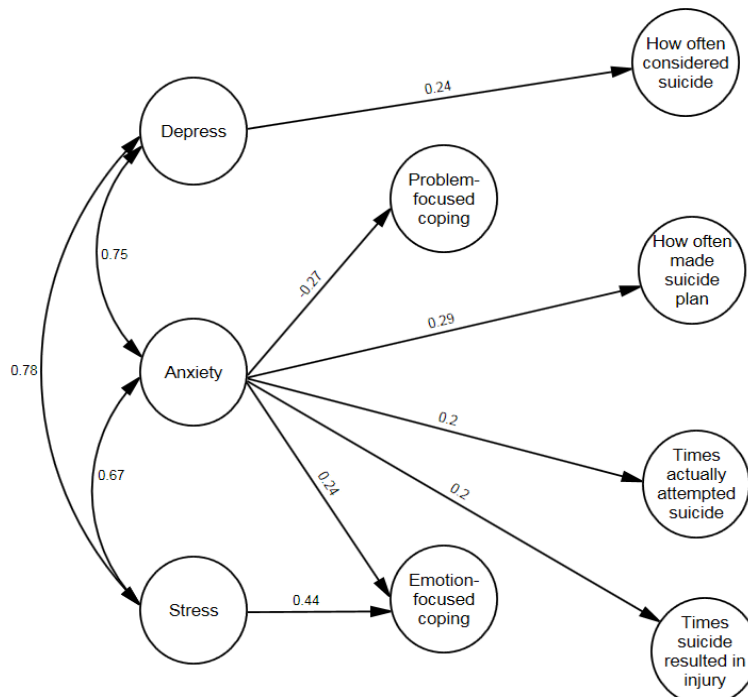


**Figure 3: Path Model of Respondents' Betel Quid Chewing Behavior as A Function of The Direct and Indirect Influences (Being Mediated by Their Coping Styles) of Their Levels of Depression, Anxiety, and Stress**





**Figure 4: Path Model of Respondents' Alcohol Consumption and Drug Usage as A Function of The Direct and Indirect Influences (Being Mediated by Their Coping Styles) of Their Levels of Depression, Anxiety, and Stress**



**Figure 5: Path Model of Respondents' Suicide Ideation as A Function of The Direct and Indirect Influences (Being Mediated by Their Coping Styles) of Their Levels of Depression, Anxiety, and Stress**