

## Stress and Stress Management of Thai and Cambodian Food and Health Products Merchants in Ban Klongluek Border Market at Aranyaprathet district, Sakaeo Province, Thailand

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### Abstract

This study aimed to analyze and compare stressors, stress and stress management of the merchants in Ban Klongluek border market. The sample size for interviewing with the questionnaires was 132 subjects selected with a stratified sampling technique.

The results revealed that 1) Internal stressors came from health behavior and emotional characteristics, 2) External stressors were caused by family relationship and other sources and 3) Stress management techniques used were problem-focused coping, emotional-focused coping, positive reappraisal and negative reappraisal. The majority of merchants (60.60%) were moderately stressed. Older people had more stress than the younger and couples had more stress than single people. Problem-focused coping was more used by Thai couples. Cambodian singles used more positive reappraisal than couples and separated people. The single and separated Thais used more negative reappraisal than couples. Health behavior of Thai merchants had the influence on problem-focused coping and family relationship had the influence on problem-focused coping. Family relationship of Cambodian merchants had significant variance in negative reappraisal.

In order that people have less stress, local health officers should give advice to the stressed people by encouraging good health behaviors, good relationship in the family and suggesting problem-focused coping and positive reappraisal techniques.

**Keywords :** Stress, Stressor, Stress management, Merchants, Border market.

## Introduction

Markets consist of merchants, customers and products. The important players in the market are merchants because they do not like customers and products which pass in and pass out. Food and health products are necessary in health and life of everybody. Stress has been identified as a major health issue of modern society. Nowadays, stress is a mental health problem which is common in the market place because competitive nature of the business. Dangers of the market economy, intimidation, and unsafe conditions cause people who stay near the frontier to be exposed to stress and can lead to mental disorders.

The data from the Ministry of Information and Communication Technology, with the cooperation of Thai Customs Department, shows that overall business on borderland of Thailand has increased every year since 1997. 75 % of international business comes from Thailand Cambodia business<sup>1</sup>. Borderland businesses are economic areas of the country. Sakaeo is an eastern province of Thailand and is bounded by Cambodia. Ban Klongluek border market is the biggest borderland business market and generates the highest income of Sakaeo. The market attracts up to 10,000 tourists each day. This makes about 100 - 200 millions bahts daily circulating in the market. Most merchants are Cambodians who immigrated from Phnom Penh<sup>2</sup>.

However, the crisis of economy in 2008 made the trade down on the eastern border. The trade statistics from January-July 2009 had been decreasing continuously at both Customs House of Sakaeo and Chanthaburi provinces.

Consequently, this made the merchants in these areas experience more stress<sup>1,3</sup>.

Obviously, there must be some stress management<sup>4</sup>, for instance, social support and interaction between people and environment which help the merchants reduce the level of stress and physical expressions of stress. The stress management chosen in this research is the one defined by Lazarus & Folkman<sup>5</sup>. According to this technique, using an emotional-focused coping style is related to psychological symptoms, lower psychological well-being, somatic symptoms, and lower quality of life.

Unstable political and economic conditions can affect stress level, but it is not known if the stressors or reactions affects all merchants equally<sup>2,6,7,8</sup>. The purpose of this study was to analyze the stressors, stress and stress management and to compare the stress level and stress management of the merchants in Ban Klongluek border market. This study was also undertaken so that local health officers could have relevant information and strategies to provide health service to this particular population.

## Materials and Methods

Mixed methods were used to acquire data on stressors and stress management and to build a rich description of the situation at Ban Klongluek border market. The qualitative method was a way to enumerate stressors and to gain a deeper understanding of stress management, and the quantitative method was presented as a means of gathering data from a large number of participants and verifying the validity of the description.

### Population, sample and key informant

The population in this research is the merchants in Ban Klongluek border market. To ensure a representative sample, merchants were stratified according to the products they sell. This resulted in the sample of 90 fresh protein vendors, 98 fruit and vegetable vendors and 12 health products vendors.

Twenty-six key informants were contacted to help define the problems of the merchants in order to find the stressors and the stress management<sup>9</sup>. The informants were chosen according to theoretical sampling. The criteria for choosing those informants were 1) they must be health personnel in Ban Klongluek border market or Thai and Cambodian merchants who sell fresh protein, vegetables, fruits, and health products; 2) the informants must be able to understand and speak Thai and 3) they are willing to participate in a tape recorded interview. This study was approved by Ethics Research Committee of Burapha University. This work was conducted in coordination with the manager of Ban Klongluek border market.

In order to get a representative response, the method of sample selection<sup>10</sup> used in the research was the stratified random sampling method. Merchants were divided into Thai and Cambodian nationalities. They were also categorized as three groups: fresh protein, fruit and vegetable, and health product sellers. The suitable proportion of the sample of 132 merchants was 59 fresh proteins vendors, 65 fruit and vegetable vendors and 8 health products vendors.

### Instruments

In qualitative method, this research chose to clarify data by using participant observation and in-depth interview. A question guideline was developed and used by the researcher.

In quantitative method, the researcher used the questionnaire for collecting data. The structure of the questionnaire consists of 4 parts: personnel factors, stress evaluation, stressors and stress management. Personnel factors are some basic demographic characteristics. The stress was evaluated using the questionnaire from Suanprung Stress Test. The questionnaire had 20 items with the total score of 100 which was then interpreted into four-scale level (Mild, Moderate, High and Very stressful). Suanprung Stress Test was permitted to be used by the Director of Suanprung hospital, Suwat Mahat nirunkul, M.D. Stressors were presented as a checklist which was developed from the analysis of the qualitative interviews. Stress management was evaluated as frequency (never-sometimes-often-routinely) of using various coping approaches, e.g. problem-focused coping, emotional-focused coping, positive reappraisal and negative reappraisal. Twenty-two exemplary items, developed from the qualitative interviews, were used to compare the respondent's preferences for coping with stress. The instrument for gathering data was validated and the questionnaire was tried out with the same group of population to the sampling group, 30 subjects. The reliability of the whole questionnaire analyzed with Cronbach's Alpha Coefficient was 0.81.

### Data analysis

The qualitative data was analyzed by content analysis and was verified by triangulation method.

The complete questionnaire was coded and analyzed by statistical procedures, including percentage, t-test and ANOVA. The level of significance for all tests was at the 0.05 level.

## Results

### Stressors described by the merchants

In-depth interviews showed that the merchants thought stress was caused by a multitude of demands comprising internal forces, e.g. health behavior and emotional characteristics, and external forces, e.g. family relationship and other sources.

1. **Internal forces** mean the stress caused by various factors derived from the body. Mental and physical causes change some conditions of the body and make the owner feel stressed. Body and mind cannot be separated. When the body is stressed, so is the mind. Various conditions that are common causes of stress in this population were identified by the respondents.

#### 1.1 Health behavior

1.1.1 Sleep habit, for example, lack of sleep due to an excess of work and irregular sleep time

1.1.2 Meals which are not sufficient and not hygienic.

1.2 Physical sickness, such as incomplete body, health problem and illness, sometimes occurred due to an excess of work for a long time.

1.3 Emotional characteristics: spiritual conditions that happen when a person is interrupted and confronted by a problem affecting their

feelings, such as becoming dissatisfied, irritable, fretful, irascible, peevish or grouchy, sometimes occurred.

2. **External forces** are the factors which are not related to the body. The environment or some events can cause stress. Conditions such as unemployment, business bankruptcy, unsatisfactory working, economic depression, poverty, debt or polluted conditions can cause stress.

2.1 Family relationship: family means people who live together in the same place, whether it be the parents, children, relatives, flat mates or acquaintance. The feeling that the family is not warm, loneliness and frequent disagreements sometimes occurred.

2.2 Economic conditions, such as economic depression, inflation, price rising, poverty, debts cause the reduction of sales volumes and profits. Moreover, political problem between Thailand and Cambodia also cause the stress.

2.3 Society and environment: danger in life and assets, bad smells, a lot of cockroaches, a lot of pollution and high temperatures sometimes occurred.

### Stress levels

The majority of the interviewees (60.6%) rated their stress level as moderately stressful. Cambodians were more likely to say they were moderately stressful (74.50%) as shown in table 1.

**Table 1** Number and percentage of sample respondents classified by stress level and national.

Stress levels	Thai		Cambodian		Total	
	n	%	n	%	n	%
Mild stressful (less than 25)	0	0.0	0	0.0	0	0.0
Moderate stressful (25-42)	39	50.6	41	74.5	80	60.6
High stressful (43-62)	36	46.8	13	23.6	49	37.1
Very stressful (more than 63)	2	2.6	1	1.8	3	2.3

### Stress management strategies

According to the in-depth interviews, stress management strategies used by the respondents included problem-focused coping, emotional-focused coping, positive reappraisal and negative reappraisal.

### Comparison of stress level by demographic variables

Thai and Cambodian merchants grouped by age had a significant difference of stress

level. People at the age of 50 years and above had more stress than those less than 39 years of age, but were a little more stressful than those aged 40-49 years. Thai and Cambodian merchants categorized by their marital status had significant difference of stress level. Couples were more stressful than singles as shown in table 2.

**Table 2** Comparison of stress among different age groups and marital status in respondents

Demographic variables	n	$\bar{X}$	S.D.	F	p
Age (years)					
≤ 29	59	38.27	9.10	4.59	0.004
30-39	45	41.20	10.80		
40-49	14	44.00	11.40		
≥50	14	49.00	12.40		
Total	132	41.02	10.73		
Pair different: ≥ 50 and ≤ 29, ≥ 50 and 30-39 (p-value < 0.05)					
Marital status					
Single	46	38.09	10.15	3.66	0.028
Couple/married	73	43.23	10.47		
Divorced/separated	13	38.92	12.03		
Total	132	41.02	10.73		
Pair different: couple/married and single (p-value < 0.05)					

### Comparison of stress management between different marital status in Thai and Cambodian merchants.

The study analyzed different coping techniques used by merchants according to their marital status. Thai merchants had significant difference in problem-focused coping according to their marital status. Thai couples used problem-focused coping more frequently than the single and the separated. Cambodian merchants had

significant difference in the use of positive reappraisal coping according to their marital status. The unmarried Cambodian used more positive reappraisal than the married and the separated. Amongst the Cambodian merchants, the single and the separated used more negative reappraisal than the couples whereas Thai singles and separated used more negative reappraisal than the couples as shown in table 3 and table 4. The others had no significant difference.

Table 3 Comparison of stress management among Thai merchants according to marital status.

Marital status	n	Problem-focused Coping		Emotional-focused Coping		Positive reappraisal Coping		Negative reappraisal Coping	
		$\bar{X}$ (sd)	F (P-value)	$\bar{X}$ (sd)	F (P-value)	$\bar{X}$ (sd)	F (P-value)	$\bar{X}$ (sd)	F (P-value)
Single	20	5.15(1.42)	5.04	6.80(1.82)	2.55	13.70(3.03)	1.13	4.10(1.45)	7.69
Couple/married	48	6.17(1.73)	(0.009)	7.67(2.03)	(0.085)	14.15(4.91)	(0.330)	2.27(2.25)	(0.001)
Divorced/separated	9	4.56(1.88)		6.33(2.12)		11.78(3.42)		4.11(1.36)	
Total	77	5.71(1.76)		7.29(2.01)		13.75(4.36)		2.96(2.16)	
Pair different (p-value < 0.05)		couple/married and single,		-		-		single and couple/married,	
		couple/married and divorced/separated						divorced/separated and couple/married	

Table 4 Comparison of stress management among Cambodian merchants according to marital status.

Marital status	n	Problem-focused Coping		Emotional-focused Coping		Positive reappraisal Coping		Negative reappraisal Coping	
		$\bar{X}$ (sd)	F (P-value)	$\bar{X}$ (sd)	F (P-value)	$\bar{X}$ (sd)	F (P-value)	$\bar{X}$ (sd)	F (P-value)
Single	26	5.27(1.66)	0.13	7.58(1.79)	1.12	14.42(2.91)	3.64	3.54(2.20)	1.89
Couple/married	25	5.04(1.67)	(0.875)	6.96(1.46)	(0.333)	12.60(3.40)	(0.033)	3.20(2.26)	(0.162)
Divorced/separated	4	5.25(0.50)		6.75(1.26)		10.75(2.36)		5.50(1.73)	
Total	55	5.16(1.60)		7.24(1.62)		13.33(3.27)		3.53(2.24)	
Pair different (p-value < 0.05)		-		-		single and couple/married,		single and divorced/separated	

## Comparison of stress management between different health behavior and family relationship in Thai and Cambodian merchants.

Table 5, 6, 7 and 8 shows that Thai merchants had significant differences in health behavior and stress management using problem-focused coping. Cambodian merchants had no significant differences in stress management when compared by health behavior. Thai merchants had significant differences in family relationship and problem-focused coping. Cambodian merchants had significant differences in negative reappraisal and family relationship source level. The others had no significant difference.

**Table 5** Comparison of stress management according to health behavior in Thai merchants.

Health behavior	n	Problem-focused Coping		Emotional- focused Coping		Positive reappraisal Coping		Negative reappraisal Coping	
		$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)
Poor < 60%	57	5.40(1.87)	2.72 (0.008)	7.18(2.19)	0.81 (0.420)	13.96(3.82)	0.72 (0.475)	3.02(1.96)	0.39 (0.700)
Good $\geq$ 60 %	20	6.60(0.99)		7.60(1.39)		13.15(5.69)		2.80(2.69)	

**Table 6** Comparison of stress management according to health behavior in Cambodian merchants.

Health behavior	n	Problem-focused Coping		Emotional- focused Coping		Positive reappraisal Coping		Negative reappraisal Coping	
		$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)
Poor < 60%	44	5.16(1.54)	0.04 (0.967)	7.18(1.56)	0.49 (0.622)	13.43(3.03)	0.47 (0.640)	3.80(2.19)	1.82 (0.075)
Good $\geq$ 60 %	11	5.18(1.89)		7.45(1.92)		12.91(4.25)		2.45(2.16)	

**Table 7** Comparison of stress management according to family relationship in Thai merchants.

Family relationship	n	Problem-focused Coping		Emotional- focused Coping		Positive reappraisal Coping		Negative reappraisal Coping	
		$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)
Poor < 60%	49	6.10(1.81)	2.66 (0.010)	7.41(2.19)	0.70 (0.484)	14.41(4.79)	1.77 (0.081)	2.69(2.25)	1.45 (0.151)
Good $\geq$ 60 %	28	5.04(1.48)		7.07(1.68)		12.61(3.24)		3.43(1.93)	

**Table 8** Comparison of stress management according to family relationship in Cambodian merchants.

Family relationship	n	Problem-focused Coping		Emotional- focused Coping		Positive reappraisal Coping		Negative reappraisal Coping	
		$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)	$\bar{X}$ (sd)	t (P-value)
Poor < 60%	26	5.46(1.26)	1.44 (0.157)	7.46(1.26)	1.06 (0.293)	13.49(3.44)	0.23 (0.818)	2.75(2.22)	2.79 (0.007)
Good $\geq$ 60 %	27	4.85(1.85)		7.00(1.92)		13.22(3.15)		4.33(1.98)	

## Discussion

Stressor, stress and stress management among Thai and Cambodian merchants were revealed as the followings.

Stress symptoms were similar to those identified by Werayawantana<sup>11</sup> and Schafer<sup>12</sup> who found that the eight common symptoms of emotional stress are anxiety, depression, anger, fear, sadness, frustration, guilt, and shame. Anxiety and depression are the most common evidence of the ongoing emotional stress<sup>13</sup>. For the majority of the study subjects (60.60%), stress level was moderate. The results were in agreement with some researchers such as Hotragoon<sup>14</sup> who stated that environment and unsafe conditions caused people who stayed at the frontier to become exposed to risks and encounter stress which led to mental disorders.

Stressors came from internal forces and external forces. Family relationship was a source of stress that was not work-related. However, other sources<sup>15</sup> indicated that stress was stimulated mostly from one's jobs whether it be from personal, economic, social or environmental factors.

Stress management used in this research was problem-focused coping, emotional-focused coping, positive reappraisal and negative reappraisal. These techniques were defined by Lazarus & Folkman. However, according to Boonhhung<sup>16</sup>, stress coping was divided into two groups: positive reappraisal and negative reappraisal.

Thai and Cambodian merchants had significant difference in stress level according

to marital status. The married are more stressed than the unmarried. According to Lee<sup>17</sup>, adaptation of stress level led to appropriate behavior expression of Taiwanese. His research also found that the older were more stressful than the younger. Married Thais indicated they used problem-focused coping more often than other groups. This could be due to a cultural expectation of responsibility for the family as they were more likely to return to the family after work. For Cambodians, using positive coping techniques tended to diminish with age. The behavior of smiling or using music was similar to the native Thai merchants. In terms of negative reappraisal, the results seemed to show that there were difference in acceptance of using tobacco and alcohol according to marital status. Married Thais were unlikely to use these techniques.

The result was similar to the study of Wongnunta<sup>18</sup> in that hot-tempered and moody persons were likely to be stressful easily. According to the research of Jalowiec<sup>19</sup>, stress depended on personal habits, personal attitudes and the environment.

## Recommendation

In order that people have less stress, local health officers should give advice to the stressed people by encouraging good health behaviors, good relationship in the family and suggesting problem focused coping and positive reappraisal techniques.

## Acknowledgement

The research would not have been possible without Burapha University Graduate School Research Fund.

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