MENTAL HEALTH STATUS OF A COMMUNITY IN PHAYAO PROVINCE: A SURVEY REPORT

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ABSTRACT:

Background: Mental health problem is a significant public health concern in Thailand. This study reports on the findings of a mental health status survey conducted in communities in Phayao province, Thailand. The survey was conducted to collect base line data for the Capacity Building in Health Promotion Project, which aims to achieve a healthier community.

Method: Four hundred community members were recruited using convenience sampling. Mental health status was assessed using the General Health Questionnaire-12 (GHQ-12), Patient health questionnaire (PHQ-9), and the eight-question suicidal screening (8Q) was also administered when PHQ-9 scored positive. Knowledge about depression was also assessed. Data were collected in March, 2015.

Results: Nearly sixty percent of respondents were females, 71.1% were married, 67.0% had primary school education, 41.3% were farmers. 62.8% of those interviewed did not have any illness, 30.0% had at least one illness and ongoing treatments. The average age was 54.98 years; 39.8 % were older than 60 years. The majority of those interviewed were none smokers, whereas 58.3 % were none-alcohol drinkers. The survey revealed 8.0% of respondents had a positive score for the GHQ-12, 2.5% scored positive for the PHQ- 9, and 1.75% scored positive for the 8Q. These findings demonstrate that the prevalence of depression in this sample is similar to the rates found in the national survey. Older persons were particularly at risk for experiencing depression. It is noteworthy that a positive relationship was found between GHQ-12 and PHQ- 9($r=0.38$, $p<0.001$).

Conclusion: Although the majority of responds had good overall awareness of depression, there was less knowledge regarding its causes. Early detection of people affected by depression in the community should be enhanced in order to increase early intervention, and therefore decrease burden of care.

Keywords: Mental health, Depression, Community capacity building, Thailand

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INTRODUCTION

The modern world is faced with rapid economic, political and technological changes. These combined with human rights abuses and population growth may well be leading to a global increase in mental health problems. Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community [1]. The number of people affected by mental illnesses worldwide has been increasing dramatically. Therefore, care for people who suffered from mental illness has become a greater burden [2].

The second national survey of the prevalence of major mental disorders, conducted in 2003 revealed that alcohol use disorders had the highest rate (28.5 %), with major depressive disorder rating second (3.2%). Other disorders such as generalized anxiety disorder, psychotic disorders, dysthymia disorder, agoraphobia, panic disorder, and mania had much lower rates [3]. The general rates of disorders were higher compared to results of the first national survey conducted in 1999. However, the national

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survey on the prevalence of depression, conducted in 2008, found lower rate for major depression (2.4%) [4]. Psychiatric comorbidity rates were explored for the first time in Thailand in 2013 [5]. Common comorbidity among women was affective and anxiety disorder (14.7 %). Alcohol use disorders and affective disorder (3.4 %) were more common among men. Depression alone brings significant impairment and was rated in top ten leading causes of Disability-Adjusted Life Years (DALYs), both in men and women. Anxiety disorders were ranked twelfth for women, and alcohol and harmful drinking was ranked fourth for men [6]. The prevalence for other mental disorders in general population has not yet been reported on since 2008. Interestingly large numbers of studies focused on rates of depression in specific populations. In particular, people who have chronic illness and in the ageing population. Depression rates among different populations were found to be varied. Study methodology and the use of differing instruments may account for these variations [7].

Like all people Phayao residents are exposed to various mental health risks, which include alcohol related causes and an ageing population. It was reported that Phayao province had the highest prevalence of alcohol consumption in the country [8]. Over the past decade Phayao was one of the ten provinces with high rates of suicide. This likely reflects a relatively poor mental health status [9]. A previous study in Phayao to explore causes of suicidal found alcohol consumption played a significant role [10]. Phayao was also identified as one of the top ten provinces with the highest index aging in Thailand 2014 [11]. This could be another potential cause of increased rates of depression. It is known that alcohol dependence and aging are correlated with depression and suicidal risk. Therefore, depression screening has been a routine practice in mental health care services and chronic diseases care units. However, depression and other mental health problems among general population in Phayao had not yet been explored.

The mental health care capacity building project has been established to improve the knowledge on mental health and skills for health care providers in Muang Phayao sub-district. The mental health status and knowledge about depression were explored so as to provide useful information for further developments of the project, particularly on mental health literacy, raising awareness of mental health problems, and mental health screening.

MATERIALS AND METHODS

This cross-sectional study was conducted among community members who were living in Muang Phayao sub-district, since the mental health care capacity building project has been established in this area. The formula by Taro Yamane [12] was used for the calculation sample size, by using 10,814 people aged 15 or over [13] for calculating a required sample size of 386 person; with extra 14 person; totally 400 participants. Convenience sampling was used to recruit participants aged 15 or over, who visited community health care center in March 2015.

Research assistants were trained how to use questionnaires. The participant's mental health was assessed using the following questionnaires, which including the General Health Questionnaires (GHQ-14), Patient Health Questionnaire (PHQ-9), and 8-question suicidal screening tool (8Q). The GHQ-12 is a brief assessment of psychological distress consists of twelve items with cut point score two indicating psychological distress [12]. The Thai version has established reliability and validity [15]. The GHQ-12 was applied as a mental illness screening tool as it is brief and convenient to use. PHQ-9 is a nine item screening tool for depression [16]. The Thai version of the PHQ-9 has acceptable psychometric properties for screening for major depression. PHQ-9 cut off point score seven indicates being at risk of depression. The instrument also measures severity of depression [17]. Suicidal screening test (8Q) was used for those whose PHQ-9 score seven or more [18]. If only one item of 8Q was positive, the person was considered as having suicidal ideation and they were given information about depression and were monitored. A higher score indicates higher risk of suicide. Awareness about depression was also measured using a 12 items true or false test. Descriptive statistics were employed, and relationships among mental health and characteristics of the sample were explored. The study was given ethical approval by the Ethics Review Committee for Research Involving Human Research Subjects, Boromarajonani College of Nursing, Phayao, Thailand (No.07/58)

RESULTS

Of the four hundred questionnaires completed nearly one-third of respondents were females, 71.1% were married, 67.0 % had primary school education, 41.3 % were farmers, 62.8 % did not have any illness; however, nearly one-third had at least

Table 1 Socio-demographic characteristic of community members (n = 400)

Socio-demographic factors	n	%
Gender		
Male	162	40.5
Female	238	59.5
Age (min=16; max=91; mean=54.9 SD.=15.5)		
15-24 years	21	5.2
25-34 years	26	6.5
35-44 years	40	10.0
45-59 years	154	38.5
≥ 60 years	159	39.8
Education		
Primary school	268	67.0
Higher than primary school	261	33.0
Family member (mean = 3.62, SD.=1.45)		
1-2 persons	101	25.3
3-4 persons	183	45.7
5-6 persons	103	25.3
7-8 persons	13	3.3
Marital status		
Married	283	70.8
Singer	51	12.8
Divorce	21	5.2
Widow	45	11.2
Occupation		
Farmers	165	41.3
Employers	83	20.7
Own business	49	12.3
Others	103	25.7
Income, US$ per month		
< 100 US$ (<3,000 baht)	236	57.7
≥ 100 US$ (≥ 3,000 baht)	173	42.3
Present illness		
No	251	62.8
Yes	149	37.2
- Ongoing treatment	120	30.0
Alcohol consumption (within last year)		
Never consumed	233	58.3
Has consumed	167	41.75
Smoking		
No	304	76.0
Yes	96	24.0

Table 2 The age range of participants who had GHQ-12 scores two and higher

Age range (years)	n	%
15-24	3	9.4
25-34	3	9.4
35-44	4	12.5
45-59	5	15.6
≥ 60	17	53.1
Total	32	100.0

one illness with ongoing treatments. Average aged was 54.98 years, and 39.8% were older adults (aged 60 and over). Majority was non-smoker, and over a half of them were none-alcohol drinkers as shown in Table 1.

GHQ-12 results revealed that 8.0 % (n=32) had scores of two and higher. They ranged from two to nine, which indicated risk of mental illness. Among

Table 3 Levels of depression assessed by PHQ-9

Levels of depression	n	%
No depression (0-6)	390	97.5
Mild (7-12)	9	2.2
Moderate (9-14)	1	0.3

Table 4 Characteristic of participants who had PHQ-9 and 8 Q positive

Name	Age	sex	Marital status	Number of family members	GHQ score	PHQ-9 score	8Q score
Mr. A	52	Male	Divorced	0	7	7	2
Mrs. B	62	Female	Married	6	5	8	17
Mrs. C	62	Female	Married	6	9	12	1

Table 5 Depression knowledge

Knowledge level	n	%
Low ($\leq$ 6 scores)	19	4.8
Moderate (7-9 scores)	162	40.5
High (10-12 scores)	219	54.8

Table 6 Depression knowledge

Items	n	%
1. Depression is a mental illness	223	55.8
2. Depression cannot be cured	230	57.5
3. Depressed persons often suicide	317	79.3
4. Persons who have chronic illness often depressed	307	76.8
5. Depressed persons are sad, quite, and often isolate themselves	358	89.5
6. Older persons have higher chance to have depression	310	77.5
7. Loss of loved one or loss of belonging can cause depression	349	87.3
8. Persons who have depression need treatments	366	91.5
9. Children and teenagers can also be affected by depression	331	82.8
10. Exercise can ease depression	367	91.8
11. Depression caused by changes of brain chemicals	242	60.5
12. Depression is a major cause of suicide	332	83.5

this group, over a half were aged 60 and over, one-fourth (28.1%) of them were middle age (35-59 years) as shown in Table 2.

PHQ-9 assessment found that 2.5 % (n=10) had PHQ score of seven or higher. Most of them did not have depression (97.5 %), nine had mild depression (2.2%), and only one case had moderate depression (Table 3). In addition, a positive relationship between GHQ and PHQ was found ($r=0.38$, $p<0.001$), which suggests that those who have higher score for GHQ or poorer mental health are more likely to have higher score for PHQ or depression.

Among those who had PHQ-9 score of seven and over, three of those had a positive 8Q test, which indicated that they had suicidal ideation. The first one (Mr. A) who had 8Q positive was a 52 male, divorced, and living alone. He had PHQ-9 score seven, and GHQ-12 score seven. The second person (Mrs. B) was a 62 year old female who lived with six family members. Her PHQ-9 score was eight, and GHQ score was five. She was reported as having bizarre behaviors. Despite this she had never been diagnosed or treated for mental illness. The last participant (Mrs. C) was a 62 female who lived with six family members. Her PHQ-9 score was 12, and GHQ-12 score was nine as shown in Table 4. All of them then were referred to the local health service for further assessment and possible treatment.

With regards to knowledge about depression, over a half (54.8%) of participants had high scores on depression knowledge, 40.5 % had moderate scores; and 4.8 % had low scores (Table 5).

Table 6 showed percent of participants answer corrected on each item. Three items least corrected were "depression is a mental illness" (55.8%),

"Depression cannot be cured" (57.5%), and "Depression caused by changes of brain chemicals" (60.5%).

Associations between mental health and characteristics of participants were not found. In addition knowledge about depression was not associated with either GHQ-12 or PHQ-9. However, a moderated positive relationship between GHQ-12 and PHQ-9 was demonstrated ($r=0.38$, $p<.01$).

DISCUSSION

Findings from the GHQ-12 demonstrated that about eight percent of participants were at risk of developing mental illnesses. Other studies using the same measures examining specific groups, such as dental students, the elderly, and adolescents living in a province in southern part of Thailand revealed higher risk rates, 37.3, 16.5, and 41.1respectively [19-21]. However, similar rates (9.3 % and 12.3 %) were found in studies among patients older than 40 who had mild to moderate symptoms of obstructive pulmonary diseases, and among workers who lived in urban area [22-23]. Findings from this study therefore suggest that mental health risk is relatively low among this study sample.

It is interesting to note that half of those considered at risk were older persons, twice that of the middle age group. In addition, among older persons, 10.69 percent (17 out of 159) were at risk which is higher than overall rate. However, this rate was still lower than that found in a study among older persons in a southern province of Thailand (16.5 %) [18], and older persons residing in urban areas 34.5 percent [24]. The reasons may be that the respondents lived in rural areas where life is less stressful, and most of them still lived in extended families (average number of family member was about 4 members), this may indicate good social support. There is good evidence that risk of mental health problem in developing countries could be higher in urban areas than rural area [25].

Although the findings from the GHQ-12 revealed a low risk for mental illness, a positive relationship with depression was found. Depression screening revealed interesting results. The rate for depression was 2.5 % (n=10), which is comparable to the rate of 2.4 % found in the national survey of the general population [4]. A half of those who had symptoms of depression were older persons, which is 50 percent of this group (n=5). Three of them were middle age (40-52 years), and two were teenagers (16-17 years).

Clearly, older persons have a high risk of developing depression. The number of older persons in this study was 159, of which five had depression (8 %), while the national survey reported 6 % and 4.3 % of those aged 50-59 and 60-69, respectively. A survey in a northern province among older persons showed that 5.9 % had depression [26].

High scores for depression knowledge was surprising. However, no relationship was demonstrated between depression scores and knowledge about depression.

In regard to knowledge about depression, the findings are in line with a study in a rural area [27] where good levels of knowledge were found among care givers of persons suffering from depression, as well as among other community members. However, gaps of knowledge among this sample were found. Fewer respondents reported corrected the statements "depression cannot be cured", and "depression caused by changes in brain chemicals", and "depression is a mental illness". A lack of the mentioned information is significant as this could result in people not seeking helps from health professionals.

A limitation of the study was a convenience sampling. Therefore participants may not be representative of the population, and generalization of findings must be careful.

CONCLUSION

The findings from this study are consistent with the general outcomes from other research into depression. Namely, that older persons have a higher risk of developing depression compared to other age groups; this is independent of the rural setting. High rates of depression have been regularly found in hospital settings; however, screening for depression in the community is less common. Therefore, screening for depression should be implemented routinely in the community health services, as well as in the hospital settings.

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