

# Mental Health Status among Thai Hospital Nurses

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**Objective:** To examine the prevalence of mental health disorder and its related factors among Thai nurses.

**Material and Method:** This was cross-sectional descriptive study of 390 female nurses. They were asked to complete the questionnaire which covered personal history, working conditions, job stress and general health. Multiple logistic regression was used to estimate the odds ratio (OR) for mental health disorders.

**Results:** Results revealed that 10.3 % of the nurses had poor mental health and 41.8%, had high job stress. The factors significantly associated with poor mental health were years employed, job stress, tranquilizer use and intent to leave the profession.

**Conclusion:** Nurses who had high job stress and more than 20 years work experience were more likely to have poor mental health. Reduction of job stress especially in senior nurses significantly promotes mental health and may decrease prevalence of intent to leave the profession and tranquilizer use.

**Keywords:** Job stress, Mental health, Nurse

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There are many studies reporting the relationship between job stress and mental health among workers in various sectors including health care<sup>(1-6)</sup>. Nursing is considered one of the most dangerous jobs, involving exposure to many hazards in the work environment, such as chemical, biological, physical and psychosocial elements<sup>(7)</sup>. Absenteeism, burnout, and early retirement are higher among nurses than other professions<sup>(8)</sup>.

Health care services reforms place stress on nurses and home care workers in developed countries<sup>(9,10)</sup>. Changes in health care systems can act as stressors on medical professionals, resulting in physical and mental health disorders<sup>(11,12)</sup>. In Thailand, the health system underwent reform in the year 2000. The changing work climate and workload following institution of health system reforms might be contributing to various types of mental disorders among Thai nurses. However, no studies have systematically examined these events. Therefore, the aim of this study was to investigate the

mental health status and its related factors among Thai hospital nurses.

## Material and Method

### Subjects

The study group consisted of 410 nurses who worked in the general and community hospitals in Nakhonnayok Province, Thailand. The subjects' ages ranged from 25 to 60 years. All subjects signed an informed consent form. Ethics approval for this study was obtained from the Ethics Review Committee of the Mahidol University, Bangkok, Thailand.

A cross-sectional study was performed from February 1 to March 31, 2008. The self-administered questionnaires were sent to the target hospitals. They were distributed to all nurses by the head of the nursing department of each hospital and returned by post directly to the researcher.

Five male nurses completed the questionnaire. Due to the small number of male nurses, they were cut from the analysis. Fifteen subjects who did not meet qualification requirements or had not completed the questionnaires were excluded. The study was comprised of 390 female nurses.

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## Measurements

### Personal characteristics and lifestyle

The subjects were asked their personal histories, work experience, work conditions and lifestyle factors. These included “yes” or “no” questions regarding drug and tobacco use, alcohol consumption and physical exercise.

### Job stress

Job stress was assessed using the Thai version of Psychosocial Working Condition Questionnaire (PWC)<sup>(13)</sup>. This consisted of two dimensions of work (work demand, job control) with 45 items (25 items on work demand and 20 items on job control) on a 5- point scale varying from “totally disagree to totally agree”. Job stress was calculated by the proportion of job demand and job control. The subjects were assigned into the group of low and high stress if their score was less than or equal to 1.0 or greater than 1.0 respectively. The internal consistency of the PWC using Cronbach’s alpha was 0.84.

### Mental health

The Thai version of General Health Questionnaire-28 items (GHQ) was used to measure current mental health status<sup>(14)</sup>. The questionnaire had 4 subscales with 7 questions each, Somatic Symptom, Anxiety and Insomnia, Social Dysfunction and Severe Depression. The scores were calculated by using binary (0-0-1-1) score. The sum score of all dimensions were used to assess mental health status. A score of 6 and greater was taken as a poor mental health<sup>(14)</sup>. The internal consistency of the GHQ using Cronbach’s alpha was 0.86.

### Statistical analyses

Data were expressed as mean ( $\pm$  SD) and percentage. Logistic regression was used to estimate the odds ratio (OR) of the personal and working factors for mental health status. The statistically significant criterion was set at  $p < 0.05$ . All statistical analyses were conducted using the SPSS statistical package V. 6.1 for Windows<sup>(15)</sup>.

## Results

The general characteristics of the study subjects are shown in Table 1. The prevalence of poor mental health (GHQ score of 6 or more) among the subjects was 10.3%. The mean ( $\pm$  SD) age of the subjects was 36.2 ( $\pm$  7.1). Sixty-two percent of the subjects were married. The mean working career and

daily working hours were 14.17 years ( $\pm$  7.1) and 8.7 hours ( $\pm$  2.2), respectively. Nearly 20% of the subjects have worked more than 20 years. Sixty-nine of them had rotating shift work and 33.1% worked with emergencies. Forty-one percent of the subjects had high job stress, 30% intent to leave the profession and 18% used tranquilizers. The prevalence of current smoking, alcohol consumption, and lack of exercise were 0.3%, 5.6% and 44.9%, respectively.

The results of the multiple logistic regressions are shown in Table 2.

The nurses who have worked more than 20 years were more likely to have poor mental health (OR = 3.44, 95% CI = 1.48-8.03). The mental health of the nurses with higher job stress was poorer than the nurses with lower job stress (OR = 3.36, 95% CI = 1.46-7.72). The nurses who used tranquilizers were more likely to have mental health problems than those who did not (OR = 2.81, 95% CI = 1.26-6.24). The nurses who intent to leave the profession were more likely to have poorer mental health than those who did not (OR = 2.44, 95% CI = 1.14-5.23).

## Discussion

The results in this study showed that 41.8% and 10.3% of the nurses had high job stress and poor mental health, respectively. The factors significantly associated with mental health status were job stress, years employed, use of tranquilizers and intent to leave the profession. The prevalence of poor mental health found in the present study was lower than

**Table 1.** Characteristic of the subjects (n = 390)

Variables	Mean (SD)
Age (yr)	36.2 (7.1)
BMI (kg/m <sup>2</sup> )	22.2 (3.6)
Work career (yr)	14.2 (7.1)
Daily working hour (hr)	8.6 (2.1)
	n (%)
Married	243 (62.3)
Employed more than 20 years	71 (18.3)
Rotating shift work	270 (69.2)
Emergency work	129 (33.1)
Intent to leave the profession	118 (30.3)
Use tranquilizers	70 (18.0)
Use tobacco	1 (0.3)
Alcohol consumption	22 (5.6)
Lack of exercise	175 (44.9)
High job strain	163 (41.8)
Poor mental health	40 (10.3)

**Table 2.** Odd ratios (ORs) of individual factors for poor mental health

	Poor mental health n (%)	Multivariate		
		OR	95% CI	p-value
Age (yr)				
Less than 45	30 (8.6)	reference		
45 or more	10 (23.3)	1.163	0.335-4.041	0.812
Marital				
Single or divorce	15 (10.2)	reference		
Married	25 (10.3)	1.048	0.499-2.203	0.902
Years employed (yr)				
20 or less	25 (7.8)	reference		
More than 20	15 (21.1)	3.441	1.475-8.028	0.004*
Work schedule				
Day work	16 (13.3)	reference		
Rotating shift work	24 (8.9)	0.623	0.389-2.030	0.779
Work type				
Non-emergency	29 (11.1)	reference		
Emergency	11 (8.5)	0.888	0.389-2.030	0.779
Job stress				
Low	14 (6.2)	reference		
High	26 (16.0)	3.358	1.460-7.724	0.004*
Job demand				
Low	34 (9.2)	reference		
High	6 (27.3)	1.855	0.573-6.004	0.303
Job control				
Low	34 (9.9)	reference		
High	6 (12.5)	2.291	0.664-7.908	0.190
Social support				
Low	37 (10.2)	reference		
High	3 (10.7)	0.748	0.152-3.678	0.721
Used tranquilizer				
No	27 (8.4)	reference		
Yes	13 (18.6)	2.806	1.261-6.241	0.011*
Intent to leave the profession				
No	23 (8.5)	reference		
Yes	17 (14.4)	2.438	1.137-5.230	0.022*

\* Statistical significance at  $\alpha = 0.05$

previous reports in other occupations<sup>(4-16)</sup>. The reason for this variation was unclear, but it might be due to better coping skills among these nurses compared to those of others or due to the different working environment. Poor mental health might result in poor performance. Although the prevalence of poor mental health was small, this should be taken as a warning sign. Nurses should solve this problem because they would like to be in good health to assure that they are able to look after their patients' lives.

The present study found that job stress was independently associated with the mental health status

of nurses. Since the Thai health system was reformed, the new work climate included high expectations from patients and heavy work demand. This might have caused increased pressure on nurses, resulting in mental exhaustion contributing to poor mental health. This result was similar to previous studies that reported job stress related to psychological distress among nurses<sup>(1-3)</sup>.

The present study shows that nurses with more than 20 years work experience were more likely to have poor mental health. This may be because they have many responsibilities, not only caring for patients

but also supervising junior staff and managing the wards. In addition, under the new health care service system, nurses have to produce more reports on their activities to support hospital quality assurance. This adds to their workload which affects their mental health. Excessive paperwork, lack of power in decision-making and conflict with other health care providers were sources of anxiety that were identified<sup>(17)</sup>.

The present study shows that nurses who used tranquilizers and intent to leave the profession were more likely to have poor mental health. However, the interpretation of this result is limited because this study was cross-sectional; the nurses with poor mental health may have sleeping problems and therefore took tranquilizers or may feel burnout and want to leave the profession. Further study is necessary to examine whether the factors are causes or effects.

In conclusion, nurses who had high job stress and more than 20 years work experience were more likely to have mental health problems. A healthy work environment should be promoted in order to prevent mental health problems and decrease the turnover rate among nurses.

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## ภาวะสุขภาพจิตของพยาบาลไทยที่ทำงานในโรงพยาบาล

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**วัตถุประสงค์:** เพื่อศึกษาปัจจัยที่มีความสัมพันธ์กับภาวะสุขภาพจิตของพยาบาลในโรงพยาบาล

**วัสดุและวิธีการ:** รูปแบบการวิจัยที่ใช้ในการศึกษาค้นคว้าครั้งนี้คือการศึกษากาตดัคขวาง กลุ่มตัวอย่างคือ พยาบาลวิชาชีพ จำนวน 390 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบสอบถามข้อมูลส่วนบุคคล พฤติกรรมสุขภาพ ลักษณะงาน ความเครียดจากการทำงาน และภาวะสุขภาพจิต เก็บรวบรวมข้อมูลโดยให้กลุ่มตัวอย่าง ตอบแบบสอบถามด้วยตนเอง วิเคราะห์ความสัมพันธ์โดยใช้สถิติ *Multiple logistic regression*

**ผลการศึกษา:** กลุ่มตัวอย่างร้อยละ 10.3 มีภาวะสุขภาพจิตไม่ดี และ ร้อยละ 41.8 มีความเครียดจากการทำงานสูง ปัจจัยที่มีความสัมพันธ์อย่างมีนัยสำคัญทางสถิติกับภาวะสุขภาพจิตไม่ดีในพยาบาล ได้แก่ ความเครียดจากการทำงาน ประสบการณ์การทำงาน การรับประทานยากล่อมประสาท และความตั้งใจในการลาออกจากวิชาชีพ

**สรุป:** พยาบาลที่มีความเครียดจากการทำงานสูง และมีประสบการณ์ในการทำงานมากกว่า 20 ปี มีแนวโน้มที่จะมีความผิดปกติของสุขภาพจิต ดังนั้นการลดความเครียดจากการทำงานจะช่วยส่งเสริมสุขภาพจิต อาจช่วยลด ปัญหาการลาออกจากวิชาชีพก่อนเวลา และลดการใช้ยากล่อมประสาทในพยาบาล

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