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(1-6). 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(7). Absenteeism, burnout, and early retirement are higher among nurses than other professions(8).

Health care services reforms place stress on nurses and home care workers in developed countries(9,10). Changes in health care systems can act as stressors on medical professionals, resulting in physical and mental health disorders(11,12). 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.
**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)\(^\text{13}\). 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\(^\text{14}\). 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\(^\text{14}\). The internal consistency of the GHQ using Cronbach’s alpha was 0.86.

**Statistical analyses**

Data were expressed as mean (± 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\(^\text{15}\).

**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 (± SD) age of the subjects was 36.2 (± 7.1). Sixty-two percent of the subjects were married. The mean working career and daily working hours were 14.17 years (± 7.1) and 8.7 hours (± 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>
<thead>
<tr>
<th>Variables</th>
<th>Mean (SD)</th>
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<tbody>
<tr>
<td>Age (yr)</td>
<td>36.2 (7.1)</td>
</tr>
<tr>
<td>BMI (kg/m²)</td>
<td>22.2 (3.6)</td>
</tr>
<tr>
<td>Work career (yr)</td>
<td>14.2 (7.1)</td>
</tr>
<tr>
<td>Daily working hour (hr)</td>
<td>8.6 (2.1)</td>
</tr>
<tr>
<td>Married</td>
<td>243 (62.3)</td>
</tr>
<tr>
<td>Employed more than 20 years</td>
<td>71 (18.3)</td>
</tr>
<tr>
<td>Rotating shift work</td>
<td>270 (69.2)</td>
</tr>
<tr>
<td>Emergency work</td>
<td>129 (33.1)</td>
</tr>
<tr>
<td>Intent to leave the profession</td>
<td>118 (30.3)</td>
</tr>
<tr>
<td>Use tranquilizers</td>
<td>70 (18.0)</td>
</tr>
<tr>
<td>Use tobacco</td>
<td>1 (0.3)</td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td>22 (5.6)</td>
</tr>
<tr>
<td>Lack of exercise</td>
<td>175 (44.9)</td>
</tr>
<tr>
<td>High job strain</td>
<td>163 (41.8)</td>
</tr>
<tr>
<td>Poor mental health</td>
<td>40 (10.3)</td>
</tr>
</tbody>
</table>

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

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(17).

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.

References
ภาวะสุขภาพจิตของพยาบาลไทยที่ทำงานในโรงพยาบาล

ถาวรกนิกร แก้วบุญชู, ทิพาวารี สายเพ็ชร, พิมสุภา จันทนะโสตถิ, พิมลกานต์ อาภรณ์

วัตถุประสงค์: เพื่อศึกษาปัจจัยที่มีความสัมพันธ์กับภาวะสุขภาพจิตของพยาบาลในโรงพยาบาล

วัสดุและวิธีการ: ทฤษฎีการวิจัยที่ใช้ในการศึกษาค้นหาคือการศึกษากลั่นด淙ทาง กลุ่มตัวอย่างคือ โรงพยาบาลวิชาชีพ จำนวน 390 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบสอบถามข้อมูลส่วนบุคคล พฤติกรรมสุขภาพ สัญญาบางงาน ความเครียดจากการทำงาน และภาวะสุขภาพจิต เก็บรวบรวมข้อมูลโดยให้กลุ่มตัวอย่างตอบแบบสอบถามวิเคราะห์โดยใช้สถิติ Multiple logistic regression

ผลการศึกษา: กลุ่มน้อยกว่าร้อยละ 10.3 มีภาวะสุขภาพจิตไม่ดี และร้อยละ 41.8 มีความเครียดจากการทำงานสูง ปัจจัยที่มีความสัมพันธ์กับภาวะสุขภาพจิตไม่ดีในพยาบาล โดยมีความเครียดจากการทำงานไม่รับประทานยาและประสบการณ์จากการทำงานยาวนานกว่า 20 ปี มีแนวโน้มที่จะมีความผิดปกติของสุขภาพจิต ดังนั้นการลดความเครียดจากการทำงานจะช่วยยังเสริมสุขภาพจิต อาจช่วยลดปัญหาการลาออกจากวิชาชีพก่อนเวลา และลดการใช้ยาหลอมประสานในพยาบาล