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**THE ASSOCIATION BETWEEN WORK STRESS AND MENTAL HEALTH IN TAIWAN FEMALE NURSES**

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10.1136/oemed-2011-100382.410

**Objectives** The aim of this study was to explore the associations between mental health and work stress for female nurses.

**Methods** The study recruited 677 nurses working in Kaohsiung Taiwan. During 2006-07, the structured questionnaires were mailed by batch. The questionnaire included demographic characteristics, shift types, mental health and work stress. Mental health was evaluated using Chinese Health Questionnaire 12 (CHQ-12) and then  $\geq 4$  point as mental disorder. The Effort-Reward Imbalance Model, in which the score of overcommitment  $\geq 17$  point is considered as high overcommitment and effort-reward ratio  $> 1$  as effort-reward imbalance was explained to work stress.

**Results** Among these nurses, the average (standard distribution) scores of overcommitment, effort, and reward were 16.4 (2.9), 18.8(5.5) and 41.8(9.1). The group of nurses with mental disorder had high overcommitment, effort and low reward compared to nurses in healthy group (overcommitment: 15.7 vs 17.2; effort: 16.1 vs 20.5; reward: 45.9 vs 39.2). 48.3% and 32.8% had high overcommitment and effort-reward imbalance. The percentage of high overcommitment and effort-reward imbalance were 45.2% and 61.7% in mental disorder group while only 12.9% and 27.0% in healthy group. Adjusted

for other confounders, including age, child, hospital size, job title and shift type, mental disorders were significantly associated with overcommitment and effort-reward imbalance. The OR of mental disorder for overcommitment and effort-reward imbalance were 4.8 (95% CI: 3.4 to 6.9), 5.7(95% CI: 3.8 to 8.9) respectively.

**Conclusions** In this study, work stress was related to mental disorder and suggested balancing between effort and reward at work.