

Cross-sectional screening for insomnia and burnout in nurses

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Background: Sleep disorders and burnout can affect job performance (efficiency, productivity, task execution speed, supervision) and job satisfaction. The aim of the study was to investigate relationships between sleep disorders, burnout and job performance in nurses with and without shift-work.

Methods: A cross-sectional questionnaire study was conducted from March till May 2018 across 10 wards in one Belgian hospital. Validated questionnaires were used to assess insomnia (Insomnia Severity Index, ISI), daytime sleepiness (Epworth Sleepiness Scale, ESS), shift work related sleep problems (Shift Work Sleep Questionnaire, BSWSQ), burnout (Maslach Burnout Inventory) and job performance (Job Performance Scale).

Results: Out of 226 eligible candidates, 175 nurses have completed the questionnaires (response rate: 77.43%, female: n=149 (85.1%), age: range 20-65 years). The majority performed shift work in a rotation schedule (n = 119, 68 %), 45 (25.7%) nurses only did day shifts and 11 nurses (6.3%) exclusively performed nightshifts. Insomnia according to ISI criteria was detected in 38.3%. Almost half of the sample (n=84, 48%) has symptoms of daytime sleepiness (ESS > 10), whereas 9.1% (n=16) used sleep medication (according the PSQI). Increased risk for burnout was observed in 32% (n=56) of the nurses; 16.6% (n=29) has a clinical burnout. Sleepiness was significantly correlated with burnout ($r=0.31$, $p<0.01$).

Discussion: In nurses, sleepiness and burnout were positively correlated. Female gender and burnout were significantly associated with insomnia, while working a long cycle shift pattern and experiencing daytime dysfunction were significantly associated with burnout. A significant negative association was observed between patient-related burnout and job performance.

Conclusions: Specific characteristics of shift work can directly affect sleep characteristics and burnout and indirectly job performance in nurses.

Keywords: shift work, insomnia, burnout, nurses