

Materials and methods. A review of recent scientific publications was carried out, it was used scopus and pubmed databases using as keywords: night shift, workers, diabetes, metabolic disease.

Results and conclusions. Epidemiological studies highlighted, in nurses, higher risk for metabolic problems in night shift subjects. In particular for the type 2- diabetes, in 10915 nurses, with a follow up of 22 years, emerged a risk factor of OR= 1.31, 95% CI 1.19-1.44 and in case of seniority in employment >5 years OR=2.30 (95%, CI 1.88-2.83). Other authors on 19873 subjects, and a follow up of 15 years, found a OR= 1.58, 95% CI 1.25-1.99. Instead, regarding the metabolic syndrome, emerged a risk indice of OR= 1.72, 95% CI 1.10-2.70 on 2090 workers. Similarly the risk for dyslipidemia was equal to OR=1.53, 95% CI 1.05-2.24 in 5813 subjects with a 3 years follow up. These results came from robust studies, with large samples, years of follow up sometimes really numerous and all data indicate increased risk. These consideration call for higher attention to the sphere of metabolic disease, linked with night shift work, by the occupational physician during the periodic health surveillance.

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Factors related to health status and stress level among the shift workers in convenient stores: a case study in Samut Prakan province, Thailand

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According to the recognition of adverse health effects of shiftwork, the objectives of this research were to determine the health status and the relevant factors associated to stress level among the shift workers in convenient stores. The subjects were 87 full-time workers in Bangchalong District, Samut Prakan province, Thailand. The developed questionnaires were applied in data collection. The results presented that all subjects were non-chronic diseases persons. In terms of health behaviors, 92 percent did not perform physical exercise, 81.1 percent did not consume meals at the same time, 71.3 percent had sleeping period 6-8 hours per day, and 8.2 percent did not intake meals which composed of 5 groups of nutrients, respectively. Moreover, the significant factors related to stress level were including education ($p = 0.023$), type of shift work ($p < 0.001$), job description ($p = 0.006$). Additionally, types of shiftwork were related to stress level ($p < 0.0001$) and there revealed that 3 shift works per day presented low stress level, the other groups presented in high and severe stress level. In terms of job description, the workers who performed improper work which were not suitable to their ability, lack of job skill, and had to do urgent task were in high level of stress. Therefore, the suggestions are including the organization should 1) setup training courses for increasing job skills and health promotion, 2) provide the relaxing activities for stress reduction, and 3) arrange the appropriated shiftwork for their employees. For further study, the other health effects related to the variation of hormone should be determined.

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Working times in Germany: Representative results from the BAuA-Working Time Survey

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Introduction: In a changing world of work, aspects of working times reflect changes and trends of work and private lives. Working times play a key role for employees' health and well-being. Thus, the Federal Institute for Occupational Safety and Health (BAuA) initiated the biennial BAuA-Working Time Survey (WTS) in 2015 to describe working time realities in Germany as well as to investigate relationships of working time, health and well-being of employees.

Material and Methods: The BAuA-WTS includes various aspects of working time arrangements, but also other working conditions as well as health and job satisfaction in a Computer Assisted Telephone Interview (CATI). There are special modules on key topics in each wave. The fourth wave of the panel study will be finished by the end of 2021 and deals with the Corona pandemic.

Results: We give an overview on working time duration and overtime, shiftwork and weekend work, working time control, variability of working time, on-call work and permanent availability. The results show that several working time demands are quite common in Germany, such as weekend work and working overtime.

Conclusions: The BAuA-WTS constitutes a long term project with the aim to provide representative, reliable and longitudinal data on working time and its consequences for German employees. Actual challenges of working time organizations are - next to globalization and digitization - the socio-ecological transformation and the Corona pandemic. The BAuA-WTS is tracking these changes to ignite discussions about healthy working time organization in the scientific and political debate.

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The association between nurses' shift patterns and burnout. Does work time control play a role? Results from a nation-wide cross-sectional survey

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Introduction: The negative role that long shifts of 12 hours or longer play in the development of burnout has been established by large studies. Nurses face demanding workplace stressors, including high workloads, and limited autonomy, all of which place them at higher risk of burnout. However, recent studies found that work time control improves healthcare staff wellbeing. This study explores whether variation in nurses' work time control moderates the negative effects of long shifts.

Material and Methods: A survey with questions about current shift patterns; demographics; preferences and views around shift patterns; degree of work time control; and the Burnout Assessment Tool (BAT) was developed jointly with nurses and ward managers, and piloted tested with nurses. The survey was launched online for 3 months. After cleaning and describing data, we will run moderation analysis according to Baron&Kenny (1986) using the R package "moderation".

Results: In total, 881 nurses filled in the survey. Preliminary data analyses show that 58% of nurses work shifts of 12 hrs or longer, and 11% work the traditional 8-h shifts. Nonetheless, only 34% of nurses would ideally work 12-h shifts if they had a choice. The correlation coefficient between worked and preferred shift length is 0.42. 62% of nurses reported having no work time control at all