Introduction Sleepiness during work hours is the most common complaint of night shift workers, and is a sensitive indicator of performance decrements. Sleepiness levels vary between individuals, yet few have investigated individual factors as predictors of night shift sleepiness, and these have shown mixed results. We aimed to examine the effects of bio-psycho-social factors on subjective sleepiness of nurses during the night shift.

Methods Female nurses (n=119) working irregular rotating shifts were recruited from two hospitals in Northern Israel, using convenience sampling by clusters. Inclusion criteria were working at least 75% of full time, with at least one night shift per week. Exclusion criteria were pregnancy, a diagnosed sleep disorder, and/or chronic medical conditions. Subjective sleepiness was measured hourly during two night shifts using the Karolinska Sleepiness Scale (KSS). Sleep was monitored by actigraphy 24 hours before and until the end of the night shifts. Participants completed a socio-demographic questionnaire, the Munich ChronoType Questionnaire for Shiftworkers (MCTQshift), the Pittsburg Sleep Quality Index (PSQI) and the Pre-Sleep Arousal Scale (PSAS).

Results Mixed models stepwise analyses found main effects for hour, age, cognitive pre-sleep arousal and number of children on nighttime sleepiness (all p<0.01). Effects of chronotype on sleepiness were inconsistent. Interactions were found for age*number of children (p<0.01), pre-sleep cognitive arousal*chronotype (p<0.05), and age*chronotype (p=0.06). Older nurses were less sleepy than younger nurses, but this impact was attenuated by early chronotype and having more children. High cognitive pre-sleep arousal, but not sleep, predicted increased sleepiness, especially in nurses with late chronotype.

Discussion The impact of bio-psycho-social factors on night shift sleepiness is complex and depends on mutual interactions between these factors. Nurses who are young, late chronotypes and with high cognitive pre-sleep arousal require special attention and support, and must develop personal strategies for maintaining vigilance on the night shift.

Introduction Can on-shift nap benefit night workers’ health? Studies on blood pressure and obesity in nursing teams

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Methods A cross-sectional study was conducted in a public hospital in Rio de Janeiro, Brazil with nursing professionals who were informally allowed to nap for up to three consecutive hours during working nights. Current and accumulated doses of night work (NW) were studied through the number of working nights/2 week-span and years of NW, respectively. Four outcomes were measured using standard equipment and techniques: systolic blood pressure (SBP), diastolic blood pressure (DBP), hypertension (SBP ≥140 mmHg or DBP ≥90 mmHg or prescription of antihypertensive medication), and body mass index (BMI). The associations between exposure variables and outcomes were based on logistic regressions (hypertension) and generalised linear models (SBP; DBP and BMI). The response to ALAN is dependent on the wavelength illumination source. SWL-illumination bulbs as white-LED or compact fluorescent have a higher negative effect compared with that of incandescent or carbon bulbs. We emphasise a relationship between tumour volume, level of MLT-suppression and GDM-levels.

Discussion We suggest that human populations under increasing LP-levels of SWL-illumination are in a high risk for becoming BC-patients, it should be of great interest to set the threshold for exposure to SWL-illumination and BC-risk.
Introduction Multifaceted work redesign is always involved in improving working time arrangements. Recent experiences in improving work systems with excessive work hours or overworking situations clearly show the need to link better working schedules with comprehensive measures to reduce stress at work. It is useful to know practical ways to facilitate joint changes or work schedules and job content.

Methods Typical types of improvements undertaken in participatory programmes for joint improvement of working time arrangements and job content for preventing stress at work were compared. The programmes studied included participatory occupational health activities of health care workers, local government employees and small enterprise workers. The common features of the participatory steps that facilitated the joint change process and the roles of trained facilitators were examined. The results were discussed to compile practical guidelines for linking better work schedules with other multifaceted stress-reducing improvements.

Results Multiple aspects addressed by the reviewed programmes commonly included team-based communication, work schedules, ergonomic work methods, physical environment and social support. Work schedule changes were usually combined with enhanced communication or improved work methods. It was found useful to utilise action-oriented tools such as action checklists reflecting local good practices and group work methods for proposing feasible improvements. New guidelines for organising participatory steps for the joint change of work schedules and job content were compiled with emphasis on simple group work procedures and the use of action-oriented checklists for proposing multifaceted actions.

Conclusions The participatory steps utilising action-oriented checklists and local good practices proved useful for facilitating planning and implementation of multifaceted improvements in work schedules and job content in the local context. It is suggested to organise participatory activities referring to the new guidelines compiling these positive features in linking working time arrangements and stress prevention at work.