LONGITUDINAL MEASUREMENT OF WORK STRESSORS IN PREGNANCY

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Objectives Pregnancy represents a dynamic period when both work conditions and worker assessment of occupational psychosocial stressors may change. We undertook longitudinal repeated measurements of job control, efforts, reward, and overcommitment in pregnant working women to assess direction and magnitude of change across pregnancy.

Method The Job Content and Effort-Reward Imbalance (ERI) Questionnaires were given to 61 working pregnant women recruited at 8–12 weeks gestation and repeated 3 more times across the pregnancy. Demographic data, self-rated (SR) health and stress measures, and blood pressure (BP) data were also collected at each visit. Results were analysed using multilevel linear regression models and generalised estimating equations.

Results 36 subjects (91%) completed at least two waves; 42 (69%) completed all four. Progressive declines in job efforts, rewards, and overcommitment were noted across pregnancy; ERI remained stable. Job Control increased. Black subjects reported sub-chronic knee pain; 43% of workers with incident knee pain had other chronic pains at baseline, and respectively 51% and 28% reported limitations in climbing stairs. After adjustment for age and BMI, significant associations were found between incident knee pain and handling loads (adjusted Odds Ratio 1.33, 95% CI 1.15–1.55) compared to permanent day workers. ORs increased with cumulative years of rotating shift work and the OR for more than 30 years work 1.54 (1.22–1.94). Having ever worked in permanent night shift was not associated with colorectal cancer risk. Analysis on gene-environment interactions with genes in circadian, melatonin and sleep pathways are ongoing and will be presented.

Conclusions In this large population based study we found an increase in colorectal cancer risk associated with rotating shift work.

INCIDENCE OF KNEE PAIN AND ITS WORK-RELATED RISK FACTORS IN A LARGE WORKING POPULATION

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Objectives This study aims to estimate the incidence of knee pain and its risk factors in a general French working population, representative of the work force.

Method Of 3710 workers of a French region included in a study in 2002–2005 with a self-administered questionnaire, 2332 completed a follow-up questionnaire in 2007–2011. The questionnaires included musculoskeletal symptoms, individual and occupational exposures, and physical limitations (at follow-up only). Incident knee pain in 2007–2011 (i.e. subjects not suffering of knee pain at baseline and suffering of knee pain at follow-up) was dichotomized into sub-chronic knee pain (1–29 days) and chronic knee pain (>30 days). Associations between the incident knee pains and individual and work-related risk factors at baseline were studied separately by gender, using multinomial logistic regressions.

Results Of the 1616 respondents without knee pain at baseline, 122 (7.5%) reported chronic knee pain and 243 (15.0%) reported sub-chronic knee pain; 43% of workers with incident chronic knee pain and 30% of workers with incident sub-chronic knee pain had other chronic pains at baseline, and respectively 51% and 28% reported limitations in climbing stairs. After adjustment for age and BMI, significant associations were found between incident knee pain and handling loads >4 kg (Odds-Ratio (OR) 2.1 (1.2–3.6) among men, OR 2.3 (1.1–5.0) among