Introduction The aim of the present study was to evaluate the association between chronotype and age in day and rotating shift workers.

Methods The present cross-sectional study was carried out between October 2012 and February 2015 in a large German chemical company. Employees participating in a regular voluntary occupational health check-up were requested to complete a written questionnaire, which included items on sleeping behaviour extracted from the Munich Chronotype Questionnaire. Inclusion criteria comprised a fully completed questionnaire, not having used an alarm clock on free days, and being employed either as a day or rotating shift worker. Senior executive managers, trainees and interns were excluded. We used univariable and multivariable linear regression analyses to assess the association between age and chronotype (in minutes) in the whole sample and stratified by shift status.

Result Altogether 10 348 persons completed the questionnaire, of which 4040 (39.0%) met the inclusion criteria. Participants were on average 41.8 years old (SD: 10.2), mainly male (75.4%) and engaged in day work (82.3%). Mean chronotype was 03:23 (SD: 54 min.) in the total sample, 03:16 (SD: 55 min.) in day and 03:57 (SD: 35 min.) in rotating shift workers. With increasing age, chronotype declined from 04:00 (≤ 29 years) to 03:08 (≥ 50 years) in the whole sample, and from 03:54 to 02:59 in day and 04:25 to 03:45 in rotating shift workers. Univariable and multivariable linear regression analyses correspondingly showed a significant decline of chronotype with age in both, day and rotating shift workers.

Discussion While day workers could benefit from a chronotype decrease, rotating shift workers could build up an intolerance regarding night work with increasing age. Shift workers might benefit from specific targeted prevention programs including sleep hygiene trainings.

966 FREE OF CHOICE OPTIONS TO REDUCE SITTING: DOES IT WORK?

^{1,2}V Hermans*, ³S De Swert, ⁴J Seghers, ^{1,5}L Godderis, ^{1,6}L Daenen. ¹Knowledge, Information and Research Center, IDEWE Group (External Service for Prevention and Protection at Work), Leuven, Belgium; ²Department of Experimental and Applied Psychology, Work and Organisational Psychology (WOPS), Faculty of Psychology and Education Sciences Vrije Universiteit Brussel, Brussel, Belgium; ³Faculty of Economics and Business, KU Leuven, Brussel, Belgium; ⁴Department of Kinesiology, Physical Activity, Sports & Health Research Group, KU Leuven, Leuven, Belgium; ⁵Environment and Health, Faculty of Medicine, KU Leuven, Louvain, Belgium; ⁶Department of Rehabilitation Sciences and Physiotherapy, Human Physiology and Anatomy (KIMA), Faculty of Physical Education and Physiotherapy, Vrije Universiteit Brussel, Brussels, Belgium

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Introduction Increased cardiovascular diseases, obesity and diabetes are sedentary lifestyle. To tackle this problem, strategies to reduce sitting such as sit-stand tables, very low quality of evidence for the interventions. This study impact of a intervention reduce sitting

Methods An RCT-study was conducted in the office environment of a pharmaceutical company.: presentation of importance of good ergonomics/movement at the office and a check of the ergonomic set-up of the workstation. the experimental group (19) could use sit-stand tables, desk bikes and sit-stand chairs for 4 weeks. Iso a weekly motivation email was sent. Sitting time was measured using ActivPAL™ accelerometers before and after the 4 weeks intervention both groups. Data were analysed using SPSS.

Results significant decrease in sitting time was the experimental group The reduction in sitting time was of the subjects attributed the reduction in sitting time to the use of sit-stand tables. of the desk bikes and sit-stand supports was. Half of the subjects revealed that these devices were no important contributors to reduced sitting.

Conclusion A decreased sitting time in the intervention group, subjectively mainly attributed to the use of sit-stand tables. this further.

1068 MUSCULOSKELETAL PAIN PREDICTS ILL-HEALTH RETIREMENT AMONG KOREAN WORKERS

Se-Young Lee, Jun-Pyo Myong, HyoungRyoul Kim, Youn-Mo Cho, Mo-Yeol Kang*. Department of Preventive Medicine, College of Medicine, The Catholic University of Korea, Seoul, Korea

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Introduction The aim of this study is to investigate the effect of musculoskeletal pain on IHR (ill-health retirement) among Korean workers.

Methods Data were collected from a sample from the first to fourth phases of the Korean Longitudinal Study of Ageing (KLoSA) which conducted in 2006, 2008, 2010, 2012, and 2014. IHR were defined as those who retired due to their health problems before their scheduled or regular retirement age in one of the follow-up surveys. Pain during the preceding month in multiple locations was combined into four sites (shoulder, upper extremities, low back, lower extremities). Hazard ratios (HR) of IHR were estimated by Cox regression, after adjusting for age, job category, annual income, history of disease (HTN and DM), BMI and smoking status.

Results The HR of IHR (n=477) was 1.49 (95% confidence interval 1.01–2.20) for any site of pain among male workers, and 1.75 (1.23–2.49) among female workers. Risk of IHR was highest when workers had upper extremities pain (Male, HR=2.71; Female, HR=1.88). Musculoskeletal pain in the other sites was also predictive of IHR. Subgroup analysis according to socioeconomic status showed that the association between musculoskeletal pain and IHR is greater in white collar worker and high income groups than the others (white collar, HR=2.15; high income, HR=2.93).

Conclusions Musculoskeletal pain independently predicted IHR. Moreover, our results revealed that socioeconomic status modified these effects of musculoskeletal pain on IHR. Employees with musculoskeletal pain may need specific support to maintain their work ability.

356 WORKERS AGE 55 AND OLDER WORKING WITH PAIN

^{1,2}Marie-Christine Richard*, ^{1,2}Marie-José Durand. ¹Faculty of Medicine, Université de Sherbrooke, Longueuil, Québec, Canada; ²Centre de recherche-Hôpital Charles-Le Moyne, Longueuil, Québec, Canada

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Introduction The average worker in industrialised countries is ageing. The baby boomer generation (born 1946–1965) is gradually reaching retirement age. In Canada, the share of workers in the age 55+ age group is expected to attain 24% in 2031. There is also a shortage of young workers to replace retirees. Although data suggest that at least one in five older workers suffers from chronic musculoskeletal pain, most will

continue working despite pain. Very little is known about the factors contributing to or compromising the likelihood of these workers staying at work with pain.

Methods An interpretive descriptive method was used to explore factors associated with staying at work with pain. A transdisciplinary conceptual model was created, based on literature from the fields of work rehabilitation, ergonomics and demographics. Semi-structured individual interviews were conducted. Inclusion criteria were: blue collar workers, musculoskeletal pain (excluding cancer pain) for 6 months or more, and working 28 hours weekly or more. Analysis was performed using themes from the conceptual model; intra- and inter-case analysis was conducted using qualitative data analysis software.

Results Fifteen participants (7 women) were included, ages 55–70. They ranged from self-employed individuals to employees of large organisations, with half of them working in the private sector. Although all participants mentioned the importance of financial factors in their decision to stay at work, they did not generally consider it the main reason. For most, the perception of being useful, having peer recognition and feeling that work contributes to health were essential drivers for staying at work. Flexibility at work was deemed essential by all but took various forms.

Discussion This study identified, for the first time, both personal and work-related factors associated with working in the presence of pain. These results will help in developing better strategies to keep ageing workers at work.

800 IS THERE AN INFLUENCE OF E-MAIL REGULATIONS ON THE PERCEIVED ACCESSIBILITY OF EMPLOYEES?

W Fischmann*, A Voss, E Wischitzki, N Amler, J Kiesel, H Drexler. *Friedrich-Alexander-University of Erlangen-Nürnberg, Germany*

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Introduction The accessibility of employees beyond normal working time has increased considerably through the digitization of work and the use of digital media. The extent to which the resulting flexibility has an impact on the employees' health and whether a limitation might be helpful has not yet been clarified.

Methods Within the framework of a collaborative project ('RegioKMUnet'), funded by the German Federal Ministry of Education and Research this is examined among 12 small and medium-sized enterprises by means of psychological risk assessment (paper and online surveys) (N [employees]=1802). The focus is on regulations in dealing with e-mails and the possible relation to satisfaction with accessibility in leisure time.

Results The evaluation refers to 9 companies so far (n=1067). 28% of the employees stated that they had a regulation in dealing with e-mails on part of the company or personally. Further 37% did not consider it necessary to establish a regulation. 16% had not yet thought about a regulation and 20% had no regulation, as they otherwise feared disadvantages.

The accessibility outside working time was reported by 60% as 'okay'. Within this group, the majority (39%) stated that an e-mail regulation was not necessary, followed by 23% who had a personally imposed regulation.

23% considered the accessibility as 'not okay', of which 29% stated that an e-mail regulation was not necessary, followed again by 23% with a personal regulation.

Overall the group with a regulation in the company was the smallest (6% each in 'okay' and 'not okay').

Conclusion An e-mail regulation does not appear to be the primary influencing factor on the perception of accessibility in leisure time. Further research is needed to examine different digital media and their impact in different industrial sectors.

1118 OCCUPATIONAL AND DEMOGRAPHIC RISKS OF ACCELERATED AGEING IN RUSSIAN WORKFORCE

^{1,2}Bashkireva Angelika*. ¹Gerontological Centre of Leningrad Region, St. Petersburg, Russia; ²Research and Innovation Centre «Professional Longevity», St. Petersburg, Russia

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Actual problems of workforce ageing in Russia are characterised by an increase in the mean worker's age and in the number of elderly workers, by the existence of job categories, where accelerated ageing is observed, as well as early retirement from work before reaching the retirement age. At the same time the demographic situation in Russia is characterised by the death-rate increase for all reason's classes, sharp premature mortality rise, extra-death-rate increase of workforce from affected reasons, the decrease in mean duration of human's forthcoming life. All these permanent factors in combination with the quantity increase of those in old and senile age may result in depopulation and workforce deficiency. These demographic processes lead to essentially significant increase of the demographic load coefficient on the society, which complicate the economic situation and produce considerable structural changes in employment, public assistance and nursing care maintenance of disabled people. If total number of population in Russia for last 12 years is shortened on 5 million people more then, the occupied number – on 12 million more then, i.e. loss of persons in working age overtake losses of population as a whole. The workforce death-rate in Russia exceeds a similar index in EU in 4,5 times. Analysis of gender differences in Russia has revealed an excess of men's death-rate in working age in 5–7 once in contrast with such beside women. An unprecedented result is formed now in Russia – a break-up in average life expectancies between men and women more then in 11 years. Consequently, average statistical Russian man does not live till a pension age, i.e. dies, being in working age. The data thus obtained show that health safety and work ability promotion in workforce is a state problem and consists of a lot priority aspects, one of which is accelerated ageing prevention.

1140 ACCELERATED AGEING PREVENTION AND WORK ABILITY PROMOTION BY USE OF THE INNOVATIVE GERONTECHNOLOGY «AGE-FRIENDLY WORKPLACES»

^{1,2}Bashkireva Angelika*. ¹Gerontological Centre of Leningrad Region, St. Petersburg, Russia; ²Research and Innovation Centre «Professional Longevity», St. Petersburg, Russia

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Introduction In the conditions of demographic ageing, depopulation and workforce deficiency in Russia, the need of the employment of aged workers will grow every year. Timeliness and complexity of the solution of the employment problems among aged workers determines the expediency of the creation of a system for screening and monitoring work ability,