quantities such as differences in contrasts to compare different grouping schemes for applications in epidemiology. We illustrate the approach via simulation study based on a representative range of settings found in occupational epidemiology.

Oral Presentation

Psychosocial

0331 PROLONGED PERCEIVED STRESS AND SALIVA CORTISOL IN A LARGE COHORT OF DANISH PUBLIC SERVICE EMPLOYEES: CROSS-SECTIONAL AND LONGITUDINAL ASSOCIATIONS

¹Sigurd Mikkelsen*, ²Julie Lyng Forman, ¹Samuel Fink, ¹Marianne Agergaard Vammen, ¹Jane Frølund Thomsen, ³Matias Brødsgaard Grynderup, ^{3,4}Åse Marie Hansen, ^{5,6}Linda Kaerlev, ⁷Henrik Albert Kolstad, ^{3,4}Rugulies Reiner, ¹Jens Peter Bonde. ¹Department of Occupational and Environmental Medicine, Bispebjerg University Hospital, Copenhagen, Denmark; ²Section of Biostatistics, Department of Public Health, University of Copenhagen, Copenhagen, Denmark; ³Department of Public Health, University of Copenhagen, Copenhagen, Denmark; ⁴National Research Centre for the Working Environment, Copenhagen, Denmark; ⁵Research Unit of Clinical Epidemiology, Institute of Clinical Research, University of Southern Denmark, Odense, Denmark; ⁶Center for Clinical Epidemiology, Odense University Hospital, Odense, Denmark; ⁷Department of Occupational Medicine, Danish Ramazzini Centre, Aarhus University Hospital, Aarhus, Denmark

10.1136/oemed-2017-104636.271

Objectives The effects of prolonged stress on cortisol secretion is uncertain. This study examines the cross-sectional and longitudinal associations between prolonged perceived stress and salivary cortisol.

Methods In 2007, 4,467 Danish public service employees participated in a study of stress and mental health, and 3,217 participated in a follow-up in 2009. Perceived stress during the past four weeks was assessed by Cohen's four item Perceived Stress Scale. Participants were asked to collect saliva 30 minutes after awakening and at approximately 20:00 in the evening. The cortisol dependence on perceived stress was examined in regression analyses adjusted for effects of potential confounders. We adjusted for a large variation in saliva sampling times by modelling the time trajectory of cortisol concentrations in the morning and in the evening and examined if they were influenced by perceived stress.

Results Perceived stress had no statistically significant effects on the level or time trajectory of morning or evening cortisol, neither cross-sectionally nor longitudinally. The one month prevalence of frequently perceived stress was low, approximately 2.5%.

Conclusions Our results did not support the hypothesis that prolonged perceived stress is associated with the level or time trajectory of morning or evening salivary cortisol.

Oral Presentation

Psychosocial

0332 THE IMPACT OF ORGANISATIONAL CHANGE ON SICKNESS ABSENCE: HOW MUCH OF THE EFFECTS ARE MEDIATED BY WORKPLACE SOCIAL CAPITAL?

¹Johan Høy Jensen*, ^{2,3}Theis Lange, ¹Esben Meulengracht Flachs, ⁴Janne Skakon, ⁵Naja Hulvej Rod, ¹Jens Peter Ellekilde Bonde. ¹Department of Occupational and Environmental Medicine, Bispebjerg University Hospital, Copenhagen, Denmark; ²Department of Biostatistics, University of Copenhagen, Copenhagen, Denmark; ³The Centre for Statistical Science, Peking University, Peking, China; ⁴Department of Psychology, University of Copenhagen, Copenhagen, Denmark; ⁵Department of Public Health, University of Copenhagen, Copenhagen, Denmark

10.1136/oemed-2017-104636.272

Objective Organisational change may negatively affect employees' health and social capital. This study examined the magnitude of mediated effects from organisational change through social capital on long-term sickness absence (LSA) among public hospital workers.

Method In March 2014, 26,209 workers employed through January-December 2013 in the Capital Region of Denmark received a work-environment survey assessing social capital (84% responded). Social capital, measured using 8 self-reported items (collaboration, trust, and organisational justice) ranging 0-5/0-7 (low-high), was aggregated on work-unit level and categorised into quartiles. Organisational change (e.g., merger, layoff(s), and relocation) during July-December 2013 were recorded via surveys sent to all managers (58% responded). Monthly sickness-absence data of 2014 were obtained from regional salary registries (LSA:>28 days). Mediation was assessed using natural effects models nested on January-September 2014 and estimated the natural direct, indirect, and total effects from organisational change on LSA via social capital adjusting for age, gender, work-unit size, occupation, child- and health-proxies.

Results Exposure to merger or layoff(s) yielded significant adverse direct effects (OR 1.33, 95% CI 1.12–1.58 and OR 1.15, 95% CI 1.01–1.30, respectively) and adverse indirect effects via social capital (OR 1.04, 95% CI 1.02–1.06 and OR 1.04, 95% CI 1.03–1.05, respectively) on LSA (total effects: OR 1.38, 95% CI 1.17–1.64 and OR 1.19, 95% CI 1.05–1.36, respectively).

Surprisingly, exposure to relocation showed a *protective* direct effect (OR 0.73, 95% CI 0.58–0.91), but a significant adverse *indirect* effect (OR 1.01, 95% CI 1.00–1.03) on LSA (total effect: OR 0.74, 95% CI 0.52–0.92).

Conclusion Social capital potentially mediates adverse effects from organisational change on LSA.