

predominantly absorbed (71%) by the elderly population (≥ 65 years old). Meta-analytic results revealed that an increase of $10 \mu\text{g}/\text{m}^3$ in the PM_{10} concentration averaged from lag 0 to lag 6 was associated with an increase in the prescription of diuretics, beta-blockers and calcium antagonists of, respectively, 0.16% (95% confidence interval (CI) 0.07, 0.25), 0.19% (95% CI 0.11, 0.26) and 0.10% (95% CI 0.03, 0.17). The association was heterogeneous among zones, and in some of them, accounting for 26% of the population, it was not statistically significant. The effect was more evident during the cold season and among women.

Conclusion: We explored the relationship between exposure to PM_{10} and cardiovascular prescriptions and we observed a short-term association with the consumption of drugs that are used in the management of mild episodes of hypertensive peaks and exacerbation congestive heart failure, which can be treated at the population level without resorting to hospital facilities. Our study confirms that drug prescriptions can trace moderate cardiovascular events that do not cause hospitalisation or death, and that administrative databases are a feasible data source that should be screened for new outcomes in the field of environmental epidemiology.

Measuring psychological and social working conditions in a continuously changing framework

Trends in work characteristics, 2002–2014: preliminary findings from the US National NIOSH quality of work life surveys

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Aim: Major technological, political, economic and labour market changes have likely had an impact on the organisation of work and psychosocial job characteristics related to cardiovascular disease (CVD) in many countries, including the United States. Tausig et al. studied data from representative samples of US workers (the 1972 and 1977 quality of employment surveys and the 2002 National

Institute for Occupational Safety and Health (NIOSH) quality of work life (QWL) survey) and found mixed trends of workers' exposure to job stressors, which varied by worker and work characteristics. However, recent trends in job characteristics in the USA have not been assessed. Therefore, in order to determine whether job and work schedule characteristics are becoming more stressful and potentially increasing CVD risk in the USA, we examined data from the NIOSH QWL surveys in 2002, 2006, 2010 and 2014. We hypothesise that the prevalence of stressful job and work schedule characteristics has been increasing over this 12-year time period and has been increasing to a greater extent among workers with low socioeconomic status (SES) than those with high SES. We also hypothesise that the major recession in 2008 reduced job demands and increased job insecurity.

Methods: The QWL was included in the general social survey (GSS), which was administered to households across the United States during a face-to-face, 90-minute interview of a randomly selected sample of non-institutionalised, English-speaking adults aged 18 or older. GSS survey response rates for the four surveys analysed were 70%, 71%, 70% and 69%. The QWL surveys were only given to GSS respondents who were employed for pay during the week prior to the survey or temporarily not working due to vacation, sickness or strike. Eligibility criteria for our analysis will be employment in the civilian labour force for at least 20 hours per week. Survey sample sizes were 1796 in 2002, 1734 in 2006, 1187 in 2010 and 1246 in 2014. Occupational and industry codes for the entire datasets were updated to reflect the 2010 census occupation and the 2007 North American industry classification system (NAICS) codes. We will graph trends in job and work schedule characteristics across the four surveys (2002–2014) to examine whether trends are linear. Linear regression will be used to examine whether each psychosocial job and work schedule characteristic has been increasing, decreasing or unchanged over the 12-year period. An additional step in the analysis will be to examine trends adjusting for time varying covariates – characteristics of the sample (age, gender, education, occupational category and work hours) and of the business cycle (unemployment rate), which may affect these job exposure variables. Pairwise comparisons between time points will also be conducted with correction for multiple comparisons. An interaction term of psychosocial job and work schedule characteristic by occupational category (management/professional, service, sales, blue collar) will be added as a final step in the model to assess whether trends vary by occupational category. All analyses will be conducted using SPSS version 24.