Study details how workplace stress contributes to cardiovascular disease

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University of California, Irvine and SUNY Downstate Medical Center researchers have created a model illustrating how economic globalization may create stressful employment factors in high-income countries contributing to the worldwide epidemic of cardiovascular disease.

Dr. Peter Schnall and Marnie Dobson with UCI and Dr. Paul Landsbergis with SUNY Downstate published their findings online in the current edition of the *International Journal of Health Services* in the article titled "Globalization, Work and Cardiovascular Disease."

Cardiovascular disease, a global epidemic, is responsible for about 30 percent of all deaths worldwide. While mortality rates from CVD have been mostly declining in the advanced industrialized nations, some risk factors – including hypertension, obesity and diabetes – have been on the increase everywhere. Researchers investigating the social causes of CVD have produced a robust body of evidence documenting the effect of the work environment, including through the mechanisms of psychosocial job stressors. These stressors can produce chronic biologic responses like hypertension and promote unhealthy behaviors, which increase CVD risk.

The researchers also offer a theoretical model that illustrates how economic globalization influences the labor market and work organization in high-income countries, which in turn exacerbates job characteristics, such as unreasonable demands, low job control, effort-reward imbalance, job insecurity and long hours.

"Given the high costs of medical treatment and the economic impact on employers and society of ill health, lost productivity, and sickness absence, it is in the interest of all to seriously consider improving work organization," said Landsbergis, an associate professor in the Department of Environmental and Occupational Health Sciences in the School of Public Health at SUNY Downstate.

The authors make the following recommendations:

- Implement national surveillance of occupations, industries and workplaces to identify elevated levels of hazardous work characteristics;
- Pass regulations and laws limiting psychosocial stressors on the job;
- Establish upper limits of weekly and yearly work hours (to reduce CVD risk);
- Mandate vacation time for all employees to facilitate recovery;
- Pass regulations to mandate a "living wage" that provides sufficient support so that workers are not forced to work excessively long hours;
- And pass legislation that increases the economic security of precarious workers.

"We conclude from more than 30 years of epidemiological research that CVD is a disease of modern industrial society and not the natural result of aging," said Schnall, who is with UCI's Center for Occupational and Environmental Health and a clinical professor of medicine and public health. "It is related to forms of production that emerged with industrialization and that have expanded with economic globalization: long work hours, repetitive work, high demands, lack of control, long hours, and job insecurity."

"Global economic policies and the rise of the new flexible labor market

have caused an increase in precarious employment in advanced industrialized countries," added Dobson, an assistant adjunct professor in Center for Occupational and Environmental Health. "These work stressors in turn contribute to CVD risk factors such as obesity, diabetes and high blood pressure."

More information: P. L. Schnall et al, Globalization, Work, and Cardiovascular Disease, *International Journal of Health Services* (2016). DOI: 10.1177/0020731416664687

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