Work-Life Imbalance and Cardiovascular Risk Biomarkers

Longer working hours, the expectation of being constantly "on," and blurred boundaries between work and personal life are causing workplace stress to spill over into home life. This negative spillover adversely affects mental health, family relationships, work productivity, and job satisfaction. This "epidemic" of work-life imbalance raises concerns about its impact on physical health.

Most research on the effects of work-life imbalance is based on self-reported measures of subjective health, such as headaches, sleep problems, loss of appetite, and fatigue. While these indicators show that people suffer from stress and negative work-to-life spillover effects, physiological changes in the body, especially changes to the heart, are sometimes missed as some symptoms are silent and asymptomatic.

Cardiovascular diseases are the leading cause of death worldwide. According to the World Health Organization (WHO), 17.9 million people die from cardiovascular diseases each year.

In this study, researchers aimed to investigate the health implications of negative work-to-family spillover on cardiovascular risk biomarkers. The study is published in the Journal of Psychosomatic Research. The study used data from the National Survey of Midlife Development in the United States (MIDUS) II Biomarker Project and MIDUS Refresher: Biomarker Project.

The MIDUS II Biomarker Project occurred from 2004 to 2009, and the MIDUS Refresher Biomarker Project was conducted from 2012 to 2016. The sample consisted of 1,179 working or self-employed adults, predominantly Caucasian (89%), with an average age of 52.64 years and a nearly equal gender mix. Participants worked an average of 41 hours per week.

Negative work-to-family spillover was measured using a validated four-item scale. During data collection, participants stayed overnight at a clinical research centre and underwent a physical exam, which included collecting a fasting blood sample for cardiovascular risk biomarkers.

The five biomarkers assessed were high-density lipoprotein (HDL), low-density lipoprotein (LDL), triglycerides, interleukin-6, and C-reactive protein. These biomarkers indicate cholesterol levels (HDL, LDL), hardening of the arteries (triglycerides), and inflammation of the heart (interleukin-6 and C-reactive protein), which are onset markers for cardiovascular diseases.

The results showed that negative work-to-family spillover significantly predicted two biomarkers: higher triglycerides, which can lead to hardening of the arteries, and lower HDL, which can elevate cholesterol levels. These findings remained robust after adjusting for numerous control variables, including demographics, medication, health status, and health-related behaviours.

This suggests that the spillover of work stress into home and family life can cause physiological changes that contribute to cardiovascular diseases. The results also showed a correlation between negative work-to-family spillover and inflammation biomarkers such as interleukin-6 and C-reactive protein.

Study researchers highlight the need for organisations to pay attention to work-life balance. Stress in the workplace can spill over into home life, affecting not only mental health and family relationships but also physical health.

Published on : Sun, 2 Jun 2024