Linking organization of work and health: the challenge

Dr. Stellman teaches at the Mailman School of Public Health, Columbia University, New York

This issue of Social and Preventive Medicine contains a forum on international trends in monitoring the organization of work. One does not have to be an experienced sociologist to have noticed the massive transformation in the nature of industrialized work. Computer chips guide (and often control) most aspects of the work environment, both white and blue collar, including the flow of work and written and verbal communication between people, communities and nations. New technologies enable, perhaps even demand, that the workday no longer conform to the rising and setting of the sun. Industrialized nations are always at work; always in 24-hour contact, always pressing ahead. Computer technologies enable managers to monitor and control both production and workers more exactly than before.

The United States leads the pack in following the incessant drumbeat of production of both useful and useless products. Its workforce is the most "productive" in terms of industrial output. U.S. workers labor longest, vacation least and ironically have fewest social protections, such as guaranteed access to health care, pensions and representation by trade unions. Worldwide, workers are less secure in their jobs and, as noted in this forum, "downsizing" and consolidation of workforces continue to be major trends. The "temporary" or contingent workforce is fastest growing employment sector everywhere. So it is very appropriate that the U.S. government is at last undertaking some monitoring of the organizational conditions under which its workers are laboring. The European Union and many other individual countries have already begun the task and most of these efforts are described in this forum.

Massive changes in the organization of work have occurred at the same time that the field of occupational health and safety has evolved. By the 1970s nation after nation enacted legislation to control workplace hazards and occupational medicine and hygiene grew. There is universal agreement that workers have a right to a safe and healthful workplace, and many ordinary workers are themselves well-versed in the subject. Indeed, employers in most industrialized nations are required to inform workers about the dangers of chemicals and processes (Trebilcock 1988). Conditions have evolved from the industrial carnage of the early 20th century. Quality of life and avoidance of chronic diseases have become a main focus of safety and health practitioners.

It seems natural to assume that the organization of work – not just the hours and speed of work, but the actual relationship of workers to their jobs, their co-workers and their management structure – is an important factor affecting health and safety on the job. The truth is, however, that we do not know the extent to which organization of work is actually detrimental to day-to-day health, morbidity or mortality, or even safety on the job. We have tantalizing snippets of information and insights (Sauter et al. 2002, Hurrell et al. 1998, Sauter et al. 1998). Workers with demanding jobs and little autonomy, for example, may be at risk for elevated blood pressure (Schnall et al. 1994). But we do not understand the extent to which organization of work, itself, is the culprit in development of chronic diseases like coronary heart disease, or whether, as is more likely, there is a complex web of causality in which organization of work is highly correlated with other social determinants of health. Karasek and Theorell have captured this idea to some extent in their "job demand/job control" model (Karasek & Theorell 1990), which recognizes that demanding work may not be as harmful when the worker has some decision-making control but there are surely other models and theories which can also be applied.

The various monitoring projects on organization of work now being undertaken and described here will provide essential quantitative information on social working

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conditions and organization of work. Health researchers must now develop studies using these data to determine the extent to which the organization of work, and more generally, workplace stress, affect human health and well-being. The social psychologists, industrial engineers and management specialists have laid the important groundwork. Health researchers are now obligated to study these data carefully and to expand their conceptual frameworks of the relationships between environment and health to take into account the fact that patients and members of study populations are also workers, subjected to a variety of working conditions and organization of work schemes. Failure to include occupational parameters, such as organization of work, into study designs may, in fact, be overlooking important etiological factors. Research questions that are not asked can never be answered.

The researchers and governmental efforts described in this forum are to be applauded and supported. The amount of research that is needed is staggering, as is its complexity. An excellent next step would be to expand the monitoring efforts described in this forum to include biomarkers and health outcome data so that studies can be designed to answer these most urgent questions. Social and preventive medicine practitioners must become actively involved.

Jeanne Mager Stellman

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Address for correspondence

Jeanne Mager Stellman, PhD
Mailman School of Public Health
Columbia University
600 West 168th Street
New York, NY, 10032 USA
e-mail: jms13@columbia.edu

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