



Reduce harmful work stressors.
Improve job quality and health.

Healthy Work **Strategies**

Changing workplace policies and procedures reduced blood pressure among Quebec, Canada white-collar workers

The largest project designed to reduce job stressors (sources of stress on the job) *and* reduce employees' blood pressure (BP) was carried out between 2001-2005 by a public agency in Quebec, Canada in cooperation with University-based researchers. The agency was responsible for providing insurance services to the people of Quebec, and included employees in a variety of white-collar jobs, including senior and middle managers, professionals, technicians, and office workers.^{1,2}

How the intervention project started

Upper management in the agency wanted to improve employees' mental health by trying to reduce job stressors, and developed a collaboration with the researchers. The employees' union provided input. Surveys, focus groups and meetings were held at work during working hours.^{2, p. 251-2}

Comparison group

The intervention project was carried out in the agency that requested it (1,165 workers participated, 80.7% of workers in that agency). The comparison (control) group were workers employed in two other similar agencies (1,181 workers participated, 80.2% of workers in those two agencies). Researchers worked with the "intervention" agency to identify priorities and possible activities, while the comparison group was not assisted by researchers and was not asked to carry out intervention activities.

Risk assessment (problem "diagnosis")

The first step involved surveys and focus groups to "diagnose" what the problems were. Job stressors in the "intervention" agency were higher in 9 of the 12 departments than for the employed population of Quebec (which had previously taken the same survey). Those 9 departments became the focus of the project.^{2, p. 252} In each of these departments, the specific job stressors that were higher than those of all employees in Quebec became

intervention priorities. Employees contributed through focus groups to the “diagnosis” and suggested changes in policies and procedures aimed at addressing these priorities.

The surveys also showed that the intervention agency had similar levels as the comparison agencies of job control, coworker and supervisor support, and “rewards” (which includes support, respect, recognition, job security and opportunities for advancement) – meaning that those other two agencies made a reasonably good comparison group. On the other hand, the intervention agency did start out with higher levels of workload demands and efforts than the comparison agencies.^{2, p. 252}

How the intervention – changes in workplace policies and procedures – was carried out

The “intervention” included all changes in work policies and procedures with the goal of reducing workload demands, or increasing job control, social support, and reward—changes which can reduce job stress. Decisions about these changes were made by managers (not researchers) and were specific to each department.^{2, p. 252} However, managers benefited from the surveys and focus groups (conducted by the researchers) to help them identify priorities. Also, joint union–management committees were created in 4 of the 9 departments, which helped researchers and managers gain a better understanding of the issues.^{2, p. 259} The intervention time period varied by department and ranged from 17 to 24 months.^{2, p. 252}

Management carried out various changes designed to reduce job stressors, for example: implementing regular individual employee/manager meetings on day-to-day matters, group meetings with managers, organizational restructuring aimed at reducing workload, slowing down the implementation of important changes in work processes and computer software to allow a period of adaptation, more flexible work hours, and career and skills development.

The majority of changes carried out corresponded to the initially identified priorities. Major changes were also identified through interviews. These changes i) reached a large % of employees and ii) brought about a real transformation in the work environment from the point of view of employees interviewed. Four of six major changes aimed at improving social support and reward. Workload demands were targeted by two major changes, mainly making tasks easier by using new technologies, instead of directly reducing workload. Job control was targeted by one major change.^{2, p. 256} There were four times more major changes carried out in the intervention agency than in the comparison agencies.²

Evaluation of intervention: reductions in job stressors

A second survey was carried out six months after the intervention period, with high participation rates (85.9% in the intervention agency and 86.1 % in the comparison

agencies). Between the first and second surveys, workload demands and “high efforts plus low rewards” decreased in the intervention agency, but no such reduction was seen in the comparison agencies.

At the 30-month follow-up, levels of 3 job stressors had decreased in the intervention agency: high job demands decreased from 50.1% to 45.4%, low co-worker support dropped from 53.9% to 48.9%, and low respect and esteem, decreased from 36.1% to 30.9%. However, no changes were seen in other job stressors, such as low job control, low supervisor support and low reward.²

Evaluation of intervention: reductions in blood pressure

Both before and 6 months and 30 months after the intervention, employees wore a portable blood pressure (BP) monitor which took readings every 15 minutes during a work day. This is the most accurate method for finding out what a person’s average BP is over the course of a day. BP reductions were seen in the intervention group at six months. At the 30-month follow-up, reductions were seen in the percent of employees with hypertension (from 16.4% to 12.5%), in average systolic BP (126.1 to 123.9 mm Hg) and average diastolic BP (80.6 to 78.8 mm Hg).³ A 2 mm Hg reduction in average systolic BP would not be a large reduction for an individual. However, if a group of people had an average reduction that large, it would mean that their risk of dying from heart disease would be reduced by 7% and their risk of dying from a stroke would be reduced by 10%. BP reductions were seen in both men and women.¹

Evaluation of intervention: other health measures

At the 30 month follow-up, reductions were seen in psychological distress, and in musculoskeletal symptoms of the neck and lower back.⁴

Conclusions

A series of changes in work policies and procedures in a public agency in Quebec carried out by management, in cooperation with researchers, the union, and workers, led to documented reductions in job stressors and in employees’ blood pressure. Evidence that the intervention was successful is supported by the large number of people involved, use of a comparison group, high participation rates, state-of-the-art BP measurements, and surveys and BP measurements taken both before and after the intervention.

References:

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