



Reduce harmful work stressors.
Improve job quality and health.

Healthy Work **Strategies**

Redesigning the jobs of postal workers in Uppsala, Sweden

A series of job redesign and work organization change programs were conducted in a mail sorting terminal in Uppsala, Sweden, between 1987-1988 and in two postal terminals located in Stockholm, Sweden from 1991-1992. Postal management had noticed an increase in sick time use and staff turnover, which led to a workplace assessment, which found: discontent with tedious work tasks, inconsistent and unreliable communication from senior staff, the “unclear role of management”, and reduced productivity.^{1,2,3}

The occupational health team at the facility found workers to be working long shifts with unpredictable daily breaks and mental strain.³ University-based researchers also found better sleep and sense of well-being, and fewer stomach problems in workers who had greater control over how they did their work tasks, knew where packages would be delivered, had less “formal” management and operated more as a work team.^{1,2,3} In studies conducted in the Uppsala, Stockholm, Skövde, and Hässleholm regions, connections were seen between workload demands, low use of skills on the job, poor social support, and musculoskeletal symptoms.^{1,2}

First program of job redesign and work organization changes programs

The job redesign and work organization changes to deal with these problems, planned collaboratively between management, employees, and unions, began among 136 workers in a postal terminal in Uppsala in October, 1987, with 8-month follow up in May 1988 and 12-month follow up in October 1988.¹⁻⁵

Changes to the work environment included:

1. Creation of work teams, each with four to five workers.
2. Five additional letter sorters used during “...periods of excessive workload.”¹
3. Information system improved by weekly staff meetings and updating bulletin boards.
4. No more shifts before 6:00 am, a partial clockwise shift rotation. (However, younger workers were dissatisfied with this system because it did not allow for more days off of work, and more consistent break time for meals.)

5. Two specialized work areas created. One focused on sorting letters and packages and the other on package handling and delivery. The number of supervisors decreased, and each area had separate management teams. Work expectations and the role of supervisors were communicated to the postal workers.
6. The number of senior postal workers reduced from 12 to 7, but their "...authority was increased," by allowing these workers to serve as assistant supervisors or supervisors, depending on workshift.^{1,3}
7. Addition of food vending machines and microwave ovens; accessibility to cooked meals was an issue for staff before October 1987.

Second program of job redesign and work organization changes

The next set of job redesign and work organization changes occurred in Kista Terminal B (vs. the comparison group, Spånga Terminal A), in Stockholm, beginning in April 1991.^{1,5} A 12-month follow up was conducted in April-May 1992, with 82 workers participating. Workers could choose whether to remain in the older Terminal (A), or transfer to the new Terminal (B); 55 employees "stayed" at Terminal A and 27 "moved" to Terminal B.

Changes to the work environment included:

1. Increased responsibility for senior staff in terminal B.
2. Work teams in terminal B shared workload and responsibility for work completion for all mail sorting districts compared to individual letter carriers, in terminal A, only being responsible for work in their respective district.
3. New job tasks introduced at terminal B involving package handling and sorting.
4. Addition of two staff during periods of staff shortage.
5. Implementation of a team bonus.
6. Structural changes to terminal B—separate mail sorting rooms built for each team.
7. Time allotted for work planning.
8. Terminal B improved ergonomics (by decreasing time spent in non-neutral positions).

Impact of job redesign and work organization changes

After the first program, decision-making authority and use of skills on the job increased by the 12-month follow-up (although not at 8 months). While sleeping problems increased by 8 months, they had decreased at 12 months.^{1,2} Also, at 12 months, there was a decrease in sick leave for full-time (9.3% to 8%) and part-time (8.5% to 6.1%) postal workers.^{1,3} On the other hand, at 12 months, no significant changes were seen in contact with supervisors/management, social support, and psychological workload demands.^{1,3}

After the second program, terminal B workers reported a large decrease in musculo-skeletal symptoms in the chest and shoulder areas (although some decrease was also seen in terminal A workers).^{1,3} On the other hand, there was a decrease in psychological workload demands and social support among workers in both terminals.^{1,5}

Contact with supervisors and co-workers and use of skills on the job did not change a great deal.^{1,3} And, an unexpected result was that decision-making authority improved in terminal A, but not terminal B.

At the second follow-up, employees who reported improvements in use of job skills and in contact with co-workers or supervisors also reported fewer stomach symptoms and better sleep quality.

Limitations

Due to terminal A adopting several of the changes that had been introduced in terminal B, the true impact of the planned program in Terminal B could not be fairly evaluated. For example, the researchers reported that the letter carriers in terminal A “also got widened work tasks, for example, sorting of company mail, and the supervisors got responsibility for budget and recruitment of substitutes.” It can be difficult to do “experiments” in the real world, when the “comparison” group wants to gain the benefits of improved working conditions that are being carried out in the other group. In addition, the relatively small number of workers involved in these programs (136 in the first program, 82 in the second program) make it difficult to draw strong conclusions about what worked.

Conclusions

A series of job redesign and work organization changes in postal facilities in Sweden resulted in improvements in some working conditions, and some improvements in health. However, strong conclusions are not possible given the limitations of the study.

References:

1. Wahlstedt K. Postal work – work organisational changes as tools to improve health. Uppsala: University of Uppsala, 2001.
2. Wahlstedt K, Edling C. Psychosocial factors and their relations to psychosomatic complaints amongst postal workers. *Eur J Public Health* 1994;460–64.
3. Wahlstedt K G I, Edling C. Organizational changes at a postal sorting terminal – their effects upon work satisfaction, psychosomatic complaints and sick leave. *Work & Stress* 1997; 11:279-91.
4. Wahlstedt KGI, Björkstén Marianne G, Edling C. Factors at work and musculoskeletal symptoms among postal workers. *International journal of behavioral medicine*. 2001; 8(3):181-193. doi: 10.1207/S15327558IJBMO803_1.
5. Wahlstedt KGI, Håkan Nygård Clas, Kemmlert K, Torgén Margareta, Björkstén Marianne G. The effects of a change in work organization upon the work environment and musculoskeletal symptoms among letter carriers. *International journal of occupational safety and ergonomics*. 2000; 6(2):237-255. doi:10.1080/10803548.2000.11076454