

Interventions – Part 2

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Intervention at a U.S. state agency

- Large & growing public health agency
- Many organizational sources of stress reported during individual stress management program
- Pilot organizational stress change program – agreed to by union & agency
- 2 departments established “problem-solving committees”; 2 control departments
- Survey of employees in all 4 departments

Intervention at a U.S. state agency

Committee members:

- Identified & prioritized job stressors
 - Dept. A: uneven & repetitive workload, leading to underutilization of skills; poor communication about policies & procedures; between-dept procedural uncertainties
- Developed proposals, action plans to reduce stressors
 - Dept. A: policy & procedures manual, new phone answering system, more equal distribution of work, more task variety
- Provided feedback to other employees in the depts.
- Encouraged & assisted mgmt in making changes

Intervention at a U.S. state agency

Results (quantitative)

1st pair: worse change in demands, latitude, satisfaction in intervention vs. control dept.

2nd pair: ns change

Intervention at a U.S. state agency

Results (qualitative)

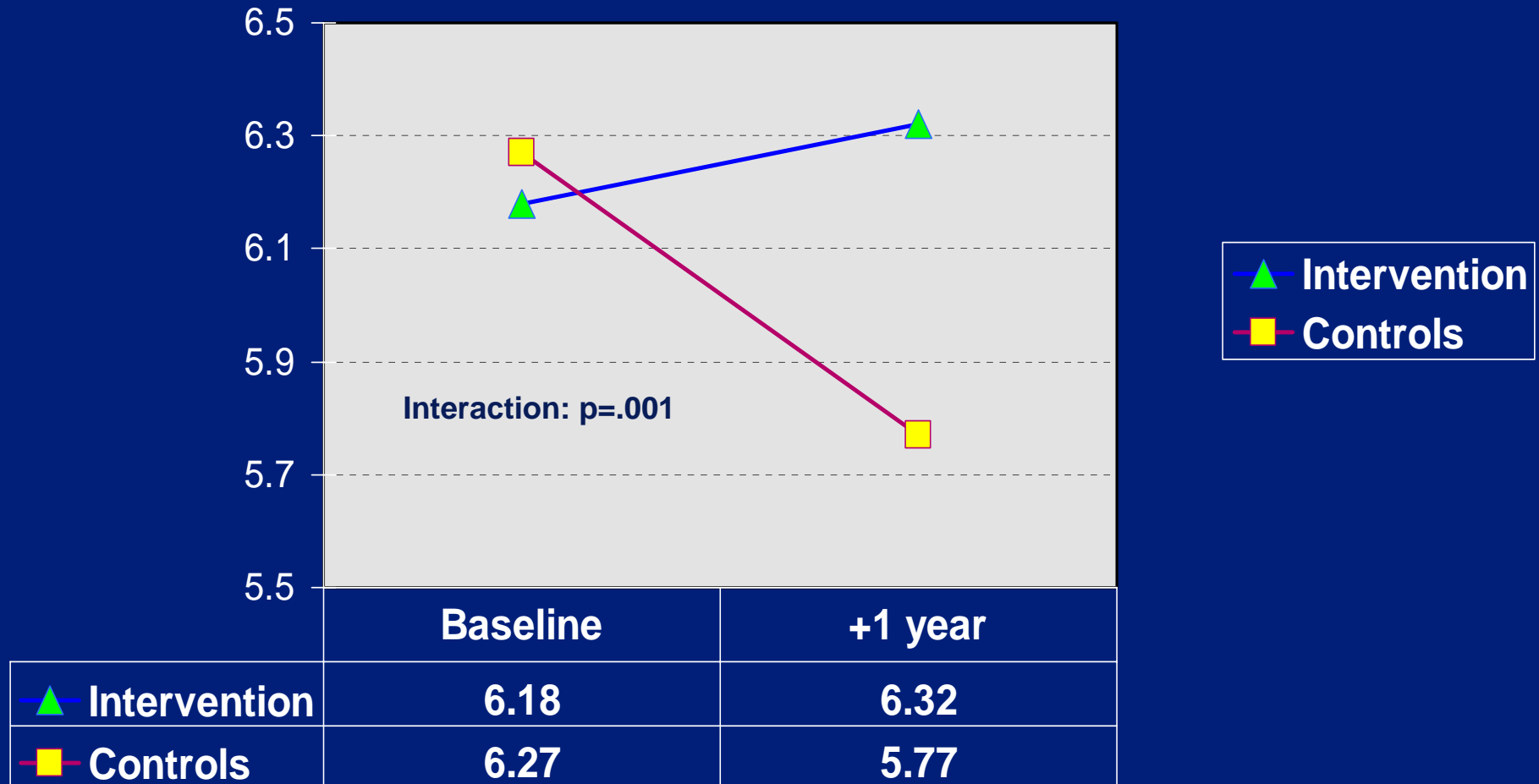
- Some accomplishments
- Program limitations
 - Many problems (e.g., personnel issues) “out of our control”
 - Promotion favoritism and discrimination remain
 - Inadequate training, equipment, resources & working space
- Divisional reorganization 1 week before post-test
 - Led to frustration & disappointment, unfinished work
 - Both intervention depts lost their (supportive) directors
- 1st control dept.
 - Director interested in stress reduction process
 - Reportedly implemented some similar reforms

Educational program for managers at a Swedish insurance company

- **Intervention group** (1 year)
 - 42 managers underwent 2-hour biweekly training sessions (total 60 hours)
 - Included discussion of
 - Psychosocial work environment
 - Medical and psychological effects of stress on individuals
 - Group dynamics, social psychological processes
 - Job redesign and processes for psychosocial improvement
 - 181 other employees in intervention group
- **Control group**
 - 42 managers and 260 other employees

Swedish insurance company manager training

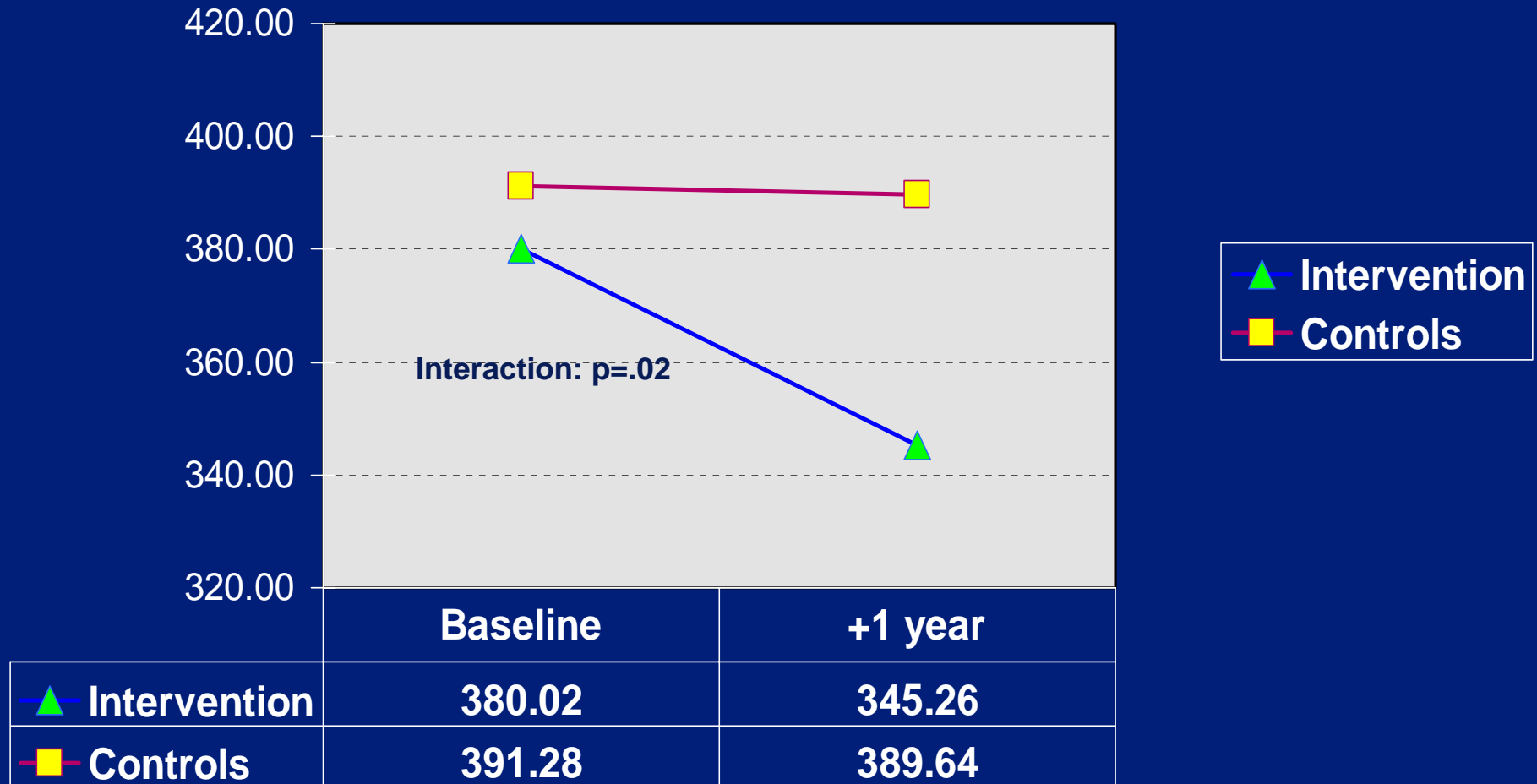
Decision authority (range 2-8)



Source: Theorell T, Emdad R, Arnetz B, Weingarten A-M. Employee effects of an educational program for managers at an insurance company. *Psychosomatic Medicine* 2001;63:724-733.

Swedish insurance company manager training

Serum cortisol (nmol/L)



Source: Theorell T, Emdad R, Arnetz B, Weingarten A-M. Employee effects of an educational program for managers at an insurance company. *Psychosomatic Medicine* 2001;63:724-733.

Primary Prevention

- **Prevention programs will be developed that focus on changes in work organization and job characteristics.**
- **These programs will be developed in close collaboration with management, employees and employee organizations.**
- **Interventions will be informed by knowledge of the workplace accumulated over time through ongoing surveillance of the workforce and implemented observational studies**

Reviews of intervention studies

British Health & Safety Executive reports

- KR Parkes, TJ Sparkes (1998)
- J Rick et al (update Sept. 2002):
- **Socio-technical interventions were particularly successful.**
- **The impact of psycho-social interventions was slightly less consistent, although still encouraging.**
 - S Parker et al (1998) – 7 case studies:
- **“Clear evidence that the way people’s jobs are designed impacts on their mental health as well as on the organisation’s productivity. Work redesign to enrich jobs (such as by increasing employees’ job control) is therefore a powerful stress-reduction intervention which has potentially important business benefits”**

KR Parkes, TJ Sparkes (1998) + update

2 types of organizational interventions:

1. Socio-technical: focus on reducing stress by changing objective aspects of the work situation
 - work schedules
 - workload
2. Psychosocial: enhance job satisfaction & performance by modifying employees' perceptions of the work environment
 - perceived autonomy
 - social support
 - communications
 - role clarity

Case studies: summary

- **Difficult to do**
 - Need adequate influence, time
 - Impact of employer interventions
 - Context of budget cuts
- **Need to be well evaluated**
 - Quasi-experimental designs
 - Adequate comparison groups
 - Pre-intervention baseline measures
 - Range of subjective, objective outcome measures
 - Avoid methodological pitfalls (e.g., selection, diffusion)

Overview of STEP Program (Surveillance, training and early prevention)

- **To ameliorate these work related health problems, a comprehensive program is needed for the improvement of the psychosocial well-being and musculoskeletal and cardiovascular health of working people through**
 - **1) Surveillance**
 - **2) Early detection with referral for evaluation and treatment of individuals with early manifestations of disease, and**
 - **3) Interventions at the workplace intended to reduce exposures.**

The need for SURVEILLANCE

- Participants at an international conference at Tokyo Medical University in 1998 called for:
- “*Surveillance* at individual workplaces and *monitoring* at national and regional levels, in order to identify the extent of work-related stress health problems and to provide baselines against which to evaluate efforts at amelioration. They recommend that workplaces assess both workplace stressors and health outcomes known to result from such exposures [e.g., job strain and hypertension] on an annual basis.”

A feasible plan for implementation of Surveillance for “occult hypertension” at the Worksite

- Screen all employees at each worksite and obtain point estimates of BP
- *Combine with:*
- Assessment of cardionoxious worksite stressors
(e.g., Job strain)

STEP PROJECT

Surveillance + Referral

- A comprehensive plan of surveillance with detection of psychosocial exposures and incipient illness will be initiated in cooperation with interested corporations, health care providers, public agencies, and labor unions.
- Working people with identified health problems will be referred to COEH facilities for evaluation and treatment by COEH and medical center staff (including cardiologists).

Surveillance

- **Chrysler-UAW LAPDC**
- **HERE – hotel workers**
- **Grow – UCSF hospital workers**
- **OCAPICA – Orange county
Vietnamese**

Required – Training of a new generation of Health and Safety Workers

- **The success of this initiative will require the development of an extensive training program for graduate students and professionals to enhance their awareness of the role of psychosocial work factors in the etiology of psychological and physical disorders such as repetitive motion injuries, hypertension and CVD.**

New Skills Needed

- Training programs for graduate students will provide them with skills in:
 - conducting surveillance,
 - detecting psychosocial exposures,
 - obtaining a psychosocial work history from employed people.
- Training for professionals should provide similar skills but focus more heavily on:
 - the development of the appropriate clinical skills (e.g., taking a medically relevant history of workplace psychosocial exposures), necessary for the detection, evaluation and treatment of work-induced illness such as CVD

Secondary Prevention

- **Workplace based risk factor reduction programs**
- **Stress management**
- **EAP's**
- **All important in managing the epidemic of PSWS's induced health problems**

Research

- **A research program will be carried out in parallel with the service component of the project, with the purpose of evaluating**
 - **the surveillance and treatment programs and**
 - **informing subsequent intervention and prevention programs for the target population aimed at reducing the burden of injuries and CVD.**
 - **Observational studies of naturally occurring changes in the workplace can be conducted through ongoing surveillance at the workplace with reevaluation of psychosocial exposures and associated changes in workplace blood pressure and other health outcomes**

Conclusions

- **Many different targets & strategies for intervention**
- **Importance of integrating:**
 - **Primary prevention - occupational health**
 - Redesigning jobs, work organization, employer policies
 - **Secondary prevention - workplace health promotion**
 - Individual stress management, behavior change
- **Interventions are political**
- **Intervention research needs to be well evaluated**

A healthy workforce: Is a low-strain enough?

- ⌘ No - think about physical health
- ⌘ "Positive mental health" also important

Self-esteem & self-efficacy



From Warr,
1987; Parker,
1999

END