

Title of Intervention and Website: Patient-centered Assessment and Counseling for Exercise and Nutrition (PACE)-type intervention

Intervention Strategies: Individual Education, Supportive Relationships

Purpose of the Intervention: To determine the effectiveness of a worksite-based, individual-counseling program on the rate of sick leave and on physical activity, fitness and health status indicators

Population: Employees of three municipal services, white collar civil servants

Setting: Enschede, the Netherlands; worksite-based;

Partners: Active Living Papendal

Intervention Description:

- Individual Education: The PACE physical activity and nutrition materials provided the comprehensive health promotion program.
- Supportive Relationships: Individualized counseling was based on individuals' stage of behavioral change using PACE physical activity and nutrition protocols. Individualized counseling was provided by a physiotherapist trained in PACE protocols and participants were provided with written information about several lifestyle factors. Counseling focused on physical activity and nutrition.

Theory: Transtheoretical Model

Resources Required:

- Staff/Volunteers: not mentioned
- Training: Physiotherapist trained for the use of Patient-centered Assessment and Counseling for Exercise and Nutrition (PACE) protocols to conduct consultations
- Technology: not mentioned
- Space: room for counseling sessions at the worksite
- Budget: not mentioned
- Intervention: written material about several lifestyle factors (physical activity, nutrition, smoking, job stress, musculoskeletal symptoms)
- Evaluation: Baecke questionnaire, fitness and health tests, measurement tools, 7-day Physical Activity Recall

Evaluation:

- Design: randomized controlled, single blind trial
- Methods and Measures: Employees were measured at baseline and directly after the intervention:
 - Questionnaire: demographic factors, physical activity behavior, health status, work (stress) related factors
 - Fitness and Health tests: body height, body weight, blood pressure, total blood cholesterol, waist and hip circumference, thickness of four skin folds, submaximal bicycle test
 - Structured interview: physical activities performed in the past seven days
 - Sick Leave rate, Frequency of sick leave: obtained from personnel departments
 - Compliance: attendance at programs
 - Prevalence of musculoskeletal symptoms: divided into low-back and upper-extremity symptoms using Astrand bicycle test and validated Dutch version of a Nordic questionnaire

Outcomes:

- Short term Impact:
 - No statistically significant intervention effect was found on sick leave rate
 - Mean sick rate leave during the intervention increased for both the control and intervention groups

- After the intervention period, mean sick leave rate increased even more for the control group and decreased slightly for the intervention group; median values of sick rates decreased for both groups
- Majority (79.4%) of intervention subjects attended five or more consultations
- Significant improvement of cardiorespiratory fitness, percentage body fat, blood pressure and blood cholesterol, energy expenditure and physical activity during sports in the intervention group
- No substantial change in proportion of subjects meeting the public health recommendation of moderate-intensity physical activity, physical activity during leisure time other than sports, prevalence of musculoskeletal symptoms, body mass index or blood pressure
- Long Term Impact: not measured

Maintenance: Not mentioned

Lessons Learned: Implementation of an individual counseling intervention at the worksite cannot be motivated by reducing sick leave alone. Physical activity counseling at the workplace is recommended to increase the proportion of employees who are physically active or fit. Physical activity counseling is recommended most highly for people with a less-favorable health profile.

Citation(s):

Proper, K. I., A. J. van der Beek, et al. (2004). "Worksite health promotion using individual counselling and the effectiveness on sick leave; results of a randomised controlled trial." *Occup Environ Med* 61(3): 275-9.

Proper, K. I., V. H. Hildebrandt, et al. (2003). "Effect of individual counseling on physical activity fitness and health: a randomized controlled trial in a workplace setting." *Am J Prev Med* 24(3): 218-26.