WORK-RELATED RISK FACTORS FOR LOW BACK PAIN AND SICKNESS ABSENCE DUE TO LOW BACK PAIN: RESULTS OF THE STUDY ON MUSCULOSKELETAL DISORDERS, ABSENTEEISM, STRESS, AND HEALTH (SMASH)

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Aim

To identify work-related risk factors for the occurrence of low back pain and sickness absence due to low back pain.

Methods

The Study on Musculoskeletal disorders, Absenteeism, Stress, and Health (SMASH) is a three-year prospective cohort study on risk factors for musculoskeletal symptoms. Approximately 1,750 workers from 34 companies in the Netherlands participated in this study. Physical load at work was assessed by means of analyses of video-recordings. Psychosocial work characteristics were assessed by means of Karasek's Job Content Questionnaire. Information on the occurrence of low back pain was obtained by means of questionnaires. Data on sickness absence were collected from company records. For the analyses on self-reported low back pain a cohort of 861 workers with no low back at baseline and complete data on the occurrence of low back pain during the follow-up period was identified. The population of the analyses on sickness absence consisted of 732 workers with no sickness absences of 3 days or longer due to low back pain in the three months prior to the baseline survey and complete data on the reasons for absences during the follow-up period.

Results

In relation to self-reported low back pain, relative risks of approximately 1.5 were found for trunk flexion, trunk rotation, lifting, high quantitative demands, low supervisor support and low co-worker support. In relation to sickness absence due to low back pain rate ratios ranging from 2.0 to 3.2 were found for trunk flexion, trunk rotation and lifting and rate ratios of approximately 1.4 were observed for low supervisor support and low co-worker support. Quantitative job demands showed no relationship with sickness absence due to low back pain. Decision authority and skill discretion showed no relationship with both self-reported low back pain and sickness absence due to low back pain.

Conclusion

Flexion and rotation of the trunk, lifting and low social support, either by co-worker or supervisor are risk factors for low back pain and sickness absence due to low back pain.