

*WE Hoogendoorn et al. Scandinavian Journal of Work, Environment and Health. August (2001) Vol.27 #4 p 258.*

This prospective study sought to examine the proposed relationship between the incidence of new back pain and physical and psychosocial factors. One question at the fore was whether or not psychosocial factors are effective simply because they change a persons perception of pain?

861 workers with no LBP at baseline were recruited to the study which had a three year follow-up period.

Exposure factors (risk factors) accounted for included physical load, which was measured at work and functional capacity, which was measured at baseline. In particular trunk flexion, lifting, weights lifted were determined objectively using VT and observation.

Psychosocial factors were measured at baseline. Stress was measured using Karasek's job content questionnaire (demand-control-support model assumed).

Job satisfaction, emotional exhaustion, sleep difficulties all assessed at baseline, by questionnaire.

Confounders included: age, gender, smoking, body mass index (BMI), exercise behaviour and coping skills.

At three years, Backpain cases were defined as regular or prolonged LBP in past 12 months.

Very few of the proposed risk factors for new cases of serious back pain were of statistical significance. The most significant factors are reported below.

Demands high RR = 1.55 (95% CI = 1.00 to 2.41)

Conflicting demands RR = 1.31 (95% CI = 0.9 to 1.92)

Supervisory support low RR = 1.47 (95% CI = 0.98 to 2.2)

Colleague support low RR = 1.48 (95% CI = 0.96 to 2.27).

But those who had been at workplace for less than 5 years had stronger psychosocial risk factors.

Emotional exhaustion was predictive RR = 1.7 (95% CI = 1.03 to 2.81) otherwise, strain did not come into it.

Adjustment for physical loading had no effect on these findings. Except for the less-than-5-year group.

#### Comment

These psychosocial predictive risk factors are barely statistically significant [for the reporting of new cases of low back pain among people who have not had an episode for at least one year prior to baseline].

Emotional exhaustion among the relatively new employees was the strongest psychosocial risk factor. Established employees seemed to be more resilient.

The effects of LBP on reported ability / sickness absence were not recorded.

The research work was of high quality and yet was not able to identify significant physical or psychosocial risk factors for new cases of LBP.

Physical and psychosocial risk factors were not multiplicative (or even additive) in this study of people with no LBP at baseline.

In general, it seems that a history of LBP remains the most predictive variable for new episodes.

