

## The Spine Project Karolinska Institutet – 1998

The Yoga Project is a behavioral medicine oriented prospective experimental study. It studies whether yoga can be used in secondary prevention of non-specific back pain (symptom diagnosis exists but not disease diagnosis) which leads to periods of sick leave.

The purpose is to study if yoga can be used as a secondary preventive measure to relieve vertebral column-related pain for people with non-specific back, shoulder and/or neck pain leading to periods of sick leave.

The experiment included 27 individuals; 14 men and 13 women. The participants were divided up, through gender-stratified random sampling, into an experiment cohort and a control cohort. The intervention consisted of six weeks of yoga practice with an instructor taking place in nine sessions. The instructor also encouraged the participants to practice at home for which purpose they were given cassette tapes and written instructions. The control cohort did not practice any yoga until after the final measurement in the experiment had been made. Measurements were made on four occasions: (1) before the start of the intervention; (2) immediately after the end of the intervention; (3) three months after the end of the intervention; and (4) six months after the end of the intervention. The measurement tools consisted of an OEQ (Outcome Evaluation Questionnaire), a pain diary and sick leave data. The OEQ is a questionnaire containing 14 questions regarding experienced pain, medication and psychological issues and behaviors that are related to pain. The pain diary contained four questions. They are related to occupation, pain intensity, anxiety/nervousness/irritation and sleep. The results were analyzed using covariance analysis with a covariate of 1. Question number three (regarding the number of days of medication) and question five (regarding quality of sleep) on the questionnaire were also analyzed with non-parametric signed-rank tests.

The experiment cohort, in almost all variables, tends to improve with a declining positive effect, i.e. the largest improvement in measurement two, slightly lower improvement in measurement three and a further lowering of improvement in measurement four, while the control cohort showed very little change and/or irregular change. Significant differences between the experiment cohort and the control cohort were observed for pain (diary), sleep (OEQ) and anxiety/nervousness/irritation (diary). All results were better for the experiment cohort. Sick leave was also reduced to a greater extent for the experiment cohort than for the control cohort, but not significantly. The results of the measurements in the Yoga Project indicate that the yoga method used in the intervention can be used to relieve vertebral column-related pain that causes periods of sick leave.