Abstract

Background. Better knowledge of the long-term course in patients treated in primary care for back pain (clinical course) and in patients that do not receive specific treatment after seeking care (clinical natural course) is needed to enable health professionals and their patients to understand the likely course of back pain and to make clinical decisions about treatment alternatives.

Aims. To increase and deepen the knowledge of the course of back pain during 2½ and 5 years, and of predictive factors for health condition and sick-leave at 1-year and 5-year follow-ups for patients with low back pain. In addition specific emphasis was on assessing the influence of type of outcome measure, timepoint of assessment of the outcome measure, timepoint of assessment of the predictive factors (baseline, after treatment or after four weeks) and inclusion of different combinations of predictive factors. Furthermore to assess the ability of physiotherapists to predict which patients will return for additional care if they do not receive specific treatment.

Material and Methods. The thesis is based on two cohorts of patients between 18 to 60 years of age seeking primary care for back pain. Exclusion criteria were having received active treatment for the current back pain within the previous month, other disease, recent accident, pregnancy, and inability to understand Swedish. In one cohort 254 patients previously treated in primary care filled out a 5-year follow-up questionnaire. Also in the other cohort almost the same questionnaire was used, including a package of well-known measures of pain, disability, recurrence rate, healthcare consumption, sick-leave, and questions regarding demographic
data. The other cohort including 56 patients was used to describe the clinical natural course with 2½-year follow-up. Patients filled out questionnaires at baseline, after 4 weeks, at 6 months and at 1- and 2½ year follow-ups. Besides physical measures were assessed at baseline and after four weeks. The physiotherapist predicted whether the patient would or would not return for additional care. Main outcome measures for describing the course of back pain were pain and disability, and secondary measures were recurrence rate and healthcare consumption. Logistic regression was used to identify predictive factors for disability and sick-leave. Prediction models for the two outcome variables at the 1-year and 5-year follow-up were created to assess whether the models were influenced by difference in outcome measure, timepoint of measuring the outcome, timepoint of assessment of potential predictive factors (baseline or after treatment), and different combinations of potential predictive factors included in the models. Potential predictive factors included were “standard” factors age, gender, sick-leave, pain frequency, disability, well-being, expectations of treatment, similar problems the previous 5 years, duration of the current episode, more than one localization, and physical activity-related and work-related independent variables. Linear regression was used to assess the predictive value of physical measures, assessed at baseline and at 4-week follow-up, for health condition at 1-year follow-up.

Results. About half the patients treated in primary care reported pain and disability at the 1- and 5-year follow-up. Around two third of the patients reported recurrence or continuous pain, and approximately one third of the patients reported additional healthcare consumption during the previous 6 months at the 1-year and 5-year follow-up. These proportions were similar for the clinical natural course cohort at the 1-year and 2½-year follow-up. Predictive factors for disability and sick-leave were only partly the same. Disability appeared to be an important predictive factor for future disability. Sick-leave and dissatisfaction with the workplace appeared to be important predictive factors for future sick-leave. Predictive factors for outcome at 1-year and 5-year follow-up were only partly the same. Health state related variables and duration of the current episode seemed to be stronger predictive factors for outcome at 1-year follow-up than for outcome at 5-year follow-up, whereas being a woman, and physical activity-related and work-related factors were stronger predictive factors for outcome at 5-year follow-up. Health state related variables assessed after treatment appeared to be stronger predictive factors for future disability or sick-leave compared with corresponding variables at baseline. Several confidence intervals were wide and the results must be interpreted with caution. Three out of four physical measures assessed at 4-week follow-up seemed to be predictive factors for health condition after one year. None of these four measures assessed at baseline had predictive value. The physiotherapists showed ability to predict which patients would or would not return for additional care.

Conclusions. A substantial proportion of patients seeking primary care for back pain continued to report back pain several years after seeking care. Future research should focus on prevention, as well as on management of patients with long-term back pain. Both self-reported measures related to health state, physical activity and work, as well as physical measures and prediction by health professionals seem helpful to identify patients at risk of worse future health condition and sick-leave. Further exploration of the predictive value of disability and sick-leave showed that future disability was predicted by disability only, and future sick-leave was predicted by both sick-leave and disability. In clinical practice, self-reported measures and physical measures can be assessed for various reasons. To improve the ability to predict future outcome, information obtained at a later timepoint than baseline should be used instead of information obtained at the first visit. Assessment of physical measures at baseline was useless for prediction purposes. Future studies should include other factors, such as psychosocial predictive factors found in other studies, to further improve the ability to predict future health condition and sick-leave. Another promising area of research is further exploration of the ability of healthcare professionals to predict outcomes, and on what grounds they base their predictions.