Abstract Half-time Review

“How to target tailored physiotherapy interventions for patients with nonspecific neck and back pain in primary care.

Prognosis-prediction-classification”

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Background

Neck and back pain problems are common in the general population and constitute a significant proportion of health care seeking in primary care. Consequences in terms of work disability, sick leave and health care costs are large for the individual and for the society. Early identification of individuals at risk for an unfavourable outcome is important when choosing treatment strategies. It is also of importance to evaluate interventions for the large group of individuals with acute/subacute neck and back pain in working age. The Start Back Tool (SBT) is a risk stratification tool that classifies patients into three risk groups, based on different needs for treatment; low, medium or high risk.

Aim

The overall aim of the thesis is to study how different self-reported instruments in primary care settings can be used in order to target tailored physiotherapy interventions for patients with nonspecific acute/subacute neck and back pain. Furthermore to study the effects of a workplace intervention and also study physiotherapy interventions in relation to baseline risk stratification in physiotherapy practice.

Specific aims:

Study I. To study the concurrent validity of the Start Back Tool (SBT) and the short form of the Örebro Musculoskeletal Pain Screening Questionnaire (ÖMPSQ-short) including psychometric properties and clinical utility in a primary care setting.

Study II. To evaluate the predictive validity of Start Back Tool (SBT) for the outcomes health related quality of life and work ability at long-term follow-up in a population with acute/subacute back and neck pain.

Study III. To evaluate the long-term effects (1 year) on work ability, health related quality of life and function of structured physiotherapy including workplace interventions in WorkUp – a prospective pairwise cluster randomized trial in primary care.
Study IV. To study type and frequency of physiotherapy treatment in relation to SBT baseline risk stratification according to SBT for patients with acute/subacute neck and back pain in primary care

The setting for all four studies is the WorkUp trial – a prospective pairwise cluster randomised controlled study of patients in working age with acute/subacute neck and/or back pain in primary care including one-year follow-up (ClinicalTrials.gov ID: NCT02609750).

Results

Study I. The statistical correlation for SBT and ÖMPSQ-short was moderately strong ($r=0.62$, $p<0.01$). In subgroup analyses, the correlations were 0.69 ($p<0.01$) for males and 0.57 ($p<0.01$) for females. The correlations were lower among older age groups, especially females over 50 years (0.21, $p=0.11$). Classification to high or low risk for long-term pain and disability had moderate agreement ($\kappa=0.42$). Observed classification agreement was 70.2%. The SBT had fewer miscalculations (13/315) than the ÖMPSQ-short (54/315).

Study II. Based on SBT risk group stratification, 103 (43%), 107 (45%) and 28 (12%) were considered being at low, medium and at high risk respectively. There were statistically significant differences in HRQoL ($p<0.001$) and work ability ($p<0.001$) at follow-up between all three SBT risk groups. Patients in the high risk group had an increased risk of having low HRQoL (OR 6.2, 95 % CI 1.50-25.26) and low work ability (OR 5.08, 95 % CI 1.75-14.71) vs the low risk group at follow-up.

No results are yet available for study III and IV.

Conclusions

The correlation between the SBT and the ÖMPSQ-short scores were moderately strong and the SBT seemed to be clinically feasible to use in clinical practice. We therefore suggest that SBT can be used for individuals with both back and/or neck pain in primary care settings but it is important to be aware of that SBT’s agreement with the ÖMPSQ-short was poor among females aged over 50 years. The SBT is an appropriate method to identify patients with a poor long-term HRQoL outcome and reduced work ability in a population with acute/subacute back and/or neck pain, and maybe a useful adjunct to primary care physiotherapy assessment and practice.

Publications:
