



Lifestyle & Prevention

Lifestyle intervention as an addition to treatment of LBP

...does it improve cost-effectivity?

Author : Nick Muhren

Expert : Erik Peper

- Lifestyle intervention by telephone with ten coaching conversations
- Only cost effective if labour costs are included
- Pain, daily function and quality of life did not differ from the control group

People with chronic low back pain and obesity who follow a healthy lifestyle intervention next to regular treatment, use less healthcare and medication and have significantly lower absenteeism (absence from work). An international research group concludes, that from a social-economic perspective, it seems more cost-effective to mostly conduct lifestyle intervention by telephone. To determine this, they executed a cost-effectiveness

analysis using data of a six-month randomised controlled study from 2015 which included 160 Australian low back pain patients with obesity.

Cost-effective

The lifestyle intervention was only cost-effective if researchers included the cost of absenteeism in their calculations. In this analysis, the difference between intervention and control group was 614 dollars in favour of the intervention group. However, if the investigators only used the direct healthcare costs – such as costs for intervention, medication and other (para)medic treatment – the lifestyle intervention was 386 dollars more expensive than regular healthcare.



Lifestyle intervention

The intervention consisted of advice by telephone, an appointment with a physiotherapist and a referral for a telephone-based health programme. Patients in the intervention group first received advice about a healthy lifestyle and the influence of lifestyle on low back pain. After that, they consulted a physiotherapist who - after a physical examination - gave personalised advice about low back pain and taught behaviour change techniques. The health programme by telephone lasted half a year and consisted of 10 individual coaching interviews based on the Australian guidelines on healthy eating and exercise.

Inconclusive

Scientists are careful with their conclusions when it comes to the cost-effectiveness of the lifestyle interventions. Sensitivity analysis – a method to correct for errors – provided a less positive image. After removing data of one patient with over 15.000 dollars of absenteeism costs, the difference between groups was only 8 dollars in favour of the intervention group. When researchers only used data of patients with good therapy compliance, the difference was 74 dollars in favour of the intervention group. Patients had a good therapy compliance if they completed at least 6 coaching interviews.

No benefit

Patients did not benefit from the lifestyle intervention. That is: researchers did not find any differences after 6 months for pain, daily function, body mass index (BMI), weight and QALY (see frame) between intervention – and control groups. Scientists determined the outcome by measuring the Numeric Pain Rating Scale (NPRS),

Roland Morris Disability Questionnaire (RMDQ), self-reported weight and the second version of the 12-item Short Form Health Survey (SF-12.v2), at baseline, 6 weeks and 6 months, respectively.

Patients

Scientists approached all patients with chronic low back pain on a waiting list for a polyclinical orthopaedic consult at a hospital. They included patients with a BMI between 27 and 40, who had non-specific low back pain over three months, and scored three points or higher on the NPRS. Patients were not allowed to follow a diet during the study period, but they could, at their own judgment, consult other allied healthcare professionals if they wanted.

PE德罗 score: Very good (9/10)

QALY

Quality adjusted life year (QALY) stands for an extra year of life in good health. QALY is used often to determine effectiveness of treatment in cost-utility- and cost-effectiveness analysis. The benefit of a treatment on lifespan and -quality can be expressed in mean increase of QALY; from this, the costs per average QALY won can be calculated.

Roland Morris Disability Questionnaire

The Roland Morris Disability Questionnaire (RMDQ) is a questionnaire consisting of 24 items, which reviews daily functioning in people with low back pain. Every item equals one point. The higher the score, the more disability someone experiences in their daily life.

Expert opinion

A most interesting study, which reported that the patients' illness behaviour (costs of healthcare utilisation and absenteeism from work) was significantly reduced, despite the absence of significant clinical improvement. The reduction of healthcare and absenteeism costs more than covered the costs of the lifestyle modification program. This study goes beyond the traditional clinical outcome assessment and practical guidelines that primarily focus on the reduction of pain and disability. In this randomised controlled study, the intervention group received a one-hour clinical consultation with a physiotherapist and a 6-month telephone-based health coaching intervention in addition to usual care. The telephone coaching consisted of ten five-minute telephone sessions that focused on lifestyle changes, to support the individuals to modify their eating behaviors, increase physical activity, achieve and maintain a healthy weight, and where appropriate included referral to smoking cessation services. The limitation of the study, as in most randomised controlled studies, was that patients with known or suspected serious pathology were excluded. Thus, the findings are limited to the patients with chronic low back pain in which there is no evident physiological cause.

I wish that the authors had explored the reasons for this surprising outcome. I hypothesise that the coaching intervention, which focused on a healthy lifestyle, was perceived by the patient as caring and attention - two important qualities that are not reimbursed by third party payers (such as insurance companies) and tend to be eliminated from treatment because of time constraints or absence of published efficacy studies. When people experience caring and support in changing diet and exercise, they may feel more empowered and hopeful - they have control over what they are doing. The focus is not on discomfort, but lifestyle changes that are within the patients' control. Thus, they experience less urgency to seek additional health care interventions or to stay home from work even though their discomfort did not change.

This may be an important contributing reason why patients with low back pain report that postural modifications are most useful: because they are taught skills and receive attention that they can continue to do at home.

Take home message: The findings of this study are highly relevant to policy makers, since the study suggests that healthy lifestyle coaching would reduce societal economic costs. It also suggests that therapists working with patients, who have chronic low back pain and are overweight, may want to include lifestyle modification coaching. If therapists continue to remind patients even in follow-up telephone calls to modify their lifestyle, it may help patients reduce absenteeism or unnecessary medical care utilisation.

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