



Physiotherapy

briefings for physicians



Fall 2004

Low Back Pain Study Sparks Discussions

A recent study published in the British Medical Journal on September 17, 2004 has been making waves across Canada—not because the study shows the effectiveness of physiotherapy intervention for low back pain, and not because of its methodology, but because of the way the study has been reported in mainstream media.

The study is entitled *Randomised controlled trial of physiotherapy compared with advice for low back pain* and was conducted by a division of the Warwick Medical School at the University of Warwick, with assistance from the University of Oxford and the Nuffield Orthopedic Centre in Oxford.



The study assessed the treatment of two groups of people who had mild low back pain of more than six weeks in duration. One group was assessed and offered physiotherapy advice on exercise and how they could undertake management of their condition; the other group was also assessed by physiotherapists and was given a range of physiotherapy treatments.

The results showed that after two and six months the patients who received treatment from a physiotherapist reported that they were feeling better and stated a return to greater function. Those patients who received treatment from a physiotherapist at the earliest point saw a quicker return to function. Those

patients who received advice from a physiotherapist saw a gradual return to normal life and movement after one year.

Regrettably, the results were misinterpreted in a newspaper article by CanWest News Services that was published in a number of CanWest newspapers.

In summary, the study makes these important conclusions:

Physiotherapy works: Both groups benefited from the intervention of physiotherapy. This survey shows that physiotherapy works—this is

“The conclusion of the study focuses on the one year outcome and does not comment on the findings of the study, which proved that both groups benefited from from the intervention of physiotherapy – this is not a comparison of treatment vs. no treatment.”

— Pamela C. Fralick, CEO, Canadian Physiotherapy Association and Bill MacDonald, President, Physiotherapy Association of British Columbia

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Combined Physiotherapy and Education Works in Chronic Back Pain

In a randomized clinical trial in Australia*, 57 moderately-disabled chronic low back pain patients were allocated to either a four-week physiotherapy program or management as directed by their general practitioner. At the end of four weeks, the patients in the physiotherapy program reduced pain and disability by an average of 1.5 points on a 10-point scale (95% CI 0.7 to 2.3) and 3.9 points on the 18-point Roland Morris Disability Questionnaire (95% CI 2 to 5.8). A treatment effect was maintained at one-year follow-up.

* *Australian Journal of Physiotherapy* 2002;48 (4):297-302

Exercise Training Helps Prevent Surgical Treatment of Herniated Lumbar Discs

Lumbar intervertebral disc herniation is a common cause of low back pain and radiculopathy. In a retrospective cohort study* of 36 men and 22 women with objective findings of lumbar radiculopathy due to intervertebral disc herniation, six patients required surgery and 52 patients were in a nonoperative group. This group participated in Stabilization Training, in which the exercises are intended to improve dynamic control of the lumbar spine. The exercise trainers emphasized correct form and technique throughout. The nonoperative group also participated in cardiovascular training using the stationary bicycle and swimming pool. Of a total of 52 nonoperative patients, 50 had "Excellent" outcomes (using Weber's criteria). 92% of all patients returned to work, and 90% of them returned to their previous occupations. Of the subgroup of patients who were initially prescribed surgery (they sought a second opinion and chose not to have surgery), all had "Excellent" or "Good" outcomes and all returned to work.

* *Spine Vol 14, no. 4, 1989*

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not a comparison of treatment vs. no treatment. Both groups had a physical assessment and advice from a chartered (registered and licensed) physiotherapist.

Exercise helps mild low back pain: Physiotherapists have recognized for some time that, in the case of mild lower back pain, a general return to movement can be as helpful to a person with back pain as manipulation or similar treatments.

Early treatment works: The study highlights the benefit of early treatment. Previous research of patients with back pain has shown that they revert to a disabled lifestyle within 48 hours and that early intervention prevents chronic back pain.

Early treatment helps a return to active life: People with back pain may consider that seeking treatment that can speed up recovery and ensure a return to normal life and movement is more desirable than experiencing back pain for longer with gradual relief. This can mean sufferers can return to work or other activity, enhancing their quality of life and general well-being.



This study has generated considerable discussion since its publication in September 2004. To date, 49 professionals (mostly physicians) have contributed to the Rapid Response section of the BMJ website with comments on this study.

Maria Judd responded on behalf of the Canadian Physiotherapy Association, stating (in part), "The Canadian Physiotherapy Association (CPA) affirms the importance of and is encouraged to see studies that examine the

effectiveness of how physiotherapy interventions are delivered. Examining current approaches to physiotherapy practice and reflecting on the results informs best and evidence-based practice.

"Clinical research continually produces new findings that can contribute to effective and efficient patient care and health policy. It is critical to examine the broader evidence base (all relevant high quality studies on a topic). Well-conducted systematic reviews are increasingly seen as providing the best evidence to inform clinical decisions and practices."

Find a Physiotherapist!

- **In BC:** Check the Physiotherapy Association of BC directory of physiotherapists (mailed to all family physicians each summer) or search online at www.bcphysio.org. You can also Find a Medical Supplier or Service on our website homepage.
- **In Saskatchewan:** Consult the Directory of Physiotherapy Services or contact the Saskatchewan Physiotherapy Association at 1-888-606-7265.

What Exercise Can Do for Low Back Pain

Low back pain is common, and though it may settle quickly, recurrence rates are about 50% in the following 12 months. In fact, 45% of BC adults who visited a physiotherapist in a 12-month period did so for back or neck pain¹. An early return to physical activities is generally encouraged, but patients are often reluctant to move. While trials of specific exercise programs for acute back pain have not shown to be effective, there is evidence to suggest that a physiotherapist-led exercise program can be effective for patients with chronic back pain.

A study² of 57 chronic low back pain patients yielded significant results. Research participants were randomly assigned to either a four-week physiotherapy program or management as directed by their general practitioner. Participants in the physiotherapy program had reduced pain and disability as measured by the Roland disability questionnaire, and a treatment effect was maintained at one-year follow-up.

The UCLA low back pain study also supports the effectiveness of physiotherapy for patients with low back pain. In this randomized clinical trial³ 681 patients were assigned to medical care with and without physical therapy and to chiropractic care with and without physical modalities. After six months of follow-up, chiropractic care and medical care for low back pain were comparable in their effectiveness, while physical therapy yielded somewhat better six-month disability outcomes than did medical care alone.

A recent randomized trial of a supervised exercise program⁴ reported significantly better outcomes at six months and two years for the exercise group compared with the control group. In this study, 187 men and women aged 18-60 years with low back pain of four weeks to six months' duration were randomly assigned to an exercise group or a control group. The exercise group participated in eight one-hour sessions that included stretching, low impact aerobics and strength exercises aimed at encouraging normal movement of the spine. These sessions were led by a physiotherapist, and also included simple educational messages. The control group continued under the care of their doctor.

At six weeks after randomization, patients in the exercise group reported less distressing pain than the control group. At six months and one year the exercise group showed significantly greater improvement in the Roland disability questionnaire and Aberdeen back pain scale. Further, at one year the exercise group reported a total of 378 days off work compared with 607 in the control group.

1. Public opinion survey conducted by MarkTrend Research Inc. for the Physiotherapy Association of British Columbia, 2001.

2. L Moseley, Combined physiotherapy and education is efficacious for chronic low back pain. *Australian Journal of Physiotherapy* 2002;48(4):297-302.

3. E.L. Hurwitz et al, A randomized trial of medical care with and without physical therapy and chiropractic care with and without physical modalities for patients with low back pain: 6-month follow-up outcomes from the UCLA low back pain study. *Spine* 2002 Oct 15;27(20):2193-204.

4. J. Klaber Moffett et al, Randomized controlled trial of exercise for low back pain: clinical outcomes, costs and preferences. *BMJ* 1999 July 31;319:279-283.

Briefly...

Exercise Safe and Effective for People with Low Back Pain

A recent systematic review* of the evidence concerning the effectiveness of exercise for people with chronic low back pain has concluded that exercise is safe for these individuals and does not increase the risk of future back pain or degeneration. The authors reviewed 15 published studies of individuals who are asymptomatic, have acute back pain, or have chronic back pain. The review further concluded that regular exercise may directly reduce back pain intensity and improve impairments in function related to flexibility, strength and cardiovascular endurance. Finally, the review concluded that exercise may reduce back pain disability by reducing fear and concerns, and altering attitudes and beliefs, about back pain.

**The Spine Journal*, 4 (2004) 106-115

Manual Therapy Plus Stay-Active Concept Effective in Low Back Pain

In a randomized controlled clinical trial*, 160 outpatients with acute or subacute low back pain were randomly allocated to a reference group and an experimental group. The reference group was treated with the "stay-active" concept. The experimental group received manual therapy in addition to the stay-active concept. At baseline, the experimental group had somewhat more pain, a higher disability rating index and more herniated disks than the reference group. After five and 10 weeks, the experimental group had less pain and a lower disability rating index than the reference group.

**Journal of Manipulative and Physiological Therapeutics* 2004 Sep;27(7):431-41



PHYSIOTHERAPY. IT'LL MOVE YOU.
LA PHYSIOTHÉRAPIE. REDÉCOUVREZ LE MOUVEMENT

Manipulative Therapy Effective in Chronic Low Back Pain

In a prospective randomized controlled trial in Finland, 204 patients with chronic back pain were randomly assigned to either a manipulative treatment group or a consultation group. All patients in the study had lower back pain of at least three months' duration and an Oswestry disability index of at least 16%.

All patients were clinically examined, informed about their back pain, provided with an educational booklet, and given specific instructions based on the clinical evaluation. Patients in the manipulative-treatment group attended 60-minute evaluation, treatment, and exercise sessions 4 times in the course of 4 weeks. The therapy included manipulation using a muscle-energy technique and stabilizing exercises aiming to correct the lumbopelvic rhythm.

In the consultation group, the clinical findings were explained with the aid of a human skeleton, and the

radiograph findings and possible causes of pain were clarified. The patients received individual instructions regarding posture and three to four exercises aiming to increase spinal mobility, muscle flexibility, and/or trunk muscle stability based on the clinical evaluation.

At five and 12 month follow-ups, the manipulative-treatment group showed more significant reductions in pain intensity and in self-rated disability than the consultation group. The manipulative treatment with stabilizing exercises was more effective in reducing pain intensity and disability than the physician consultation alone.

The study showed that short, specific treatment programs with proper patient information may alter the course of chronic low back pain.

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Patients Say Physiotherapy is Worth It

Satisfaction with physiotherapy treatment is very high: 83% of respondents to a BC-wide poll in October 2001 said they were satisfied with their physiotherapy treatment and outcomes. Over 90% say the reason for their satisfaction is that physiotherapy resolved the problem or relieved their pain, or that the physiotherapist provided helpful techniques and exercises.

*Source: MarkTrend Research Inc.,
Physiotherapy Public Opinion Survey, 2001.*

Paying for *Physiotherapy*

British Columbia

On January 1, 2002, physiotherapy was de-listed from the British Columbia Medical Services Plan, meaning that the considerable majority of people in BC must pay for physiotherapy through extended health benefits, their own money or a combination of the two. For people with low incomes who are on premium assistance, MSP will contribute up to \$23 per visit for up to 10 total visits to physiotherapy. School-age children in the At-Home Program are also funded for 24 physiotherapy treatments every six months.

About two-thirds of BC adults have extended health benefits through a group insurance plan. These plans tend to cover a varying percentage of the cost of treatment, with an annual ceiling amount. Workers' Compensation Board and the Insurance Corporation of BC still provide coverage for physiotherapy services.

Saskatchewan

Physiotherapy provided in hospitals, special care homes, community agencies or by private clinics that have a contract with the health regions are covered by the provincial medical system. Services provided in private physiotherapy clinics that aren't under contract with a Regional Health Authority are not covered.

Many Saskatchewan residents have extended health benefits through a group insurance plan. These plans tend to cover 50-100% of the cost of physiotherapy treatment, with an annual ceiling amount. The Saskatchewan Workers' Compensation Board and Saskatchewan Government Insurance also provide coverage for physiotherapy services.

What It Costs

On average, an initial visit to a physiotherapist in BC or Saskatchewan costs \$45-65. In this initial visit, the physiotherapist takes the patient's history, assesses the current problem, makes a physical examination, provides a physical diagnosis, outlines a treatment protocol and provides the first treatment. Subsequent treatment visits cost, on average, \$30-55. Fees vary with the duration of treatment and other factors.