Active Living
Research and education for the promotion of physical activity
AUGUST 2007 VOLUME 18/NUMBER 3

WellSpring

Mental Health: Yet Another Reason to Promote Physical Activity

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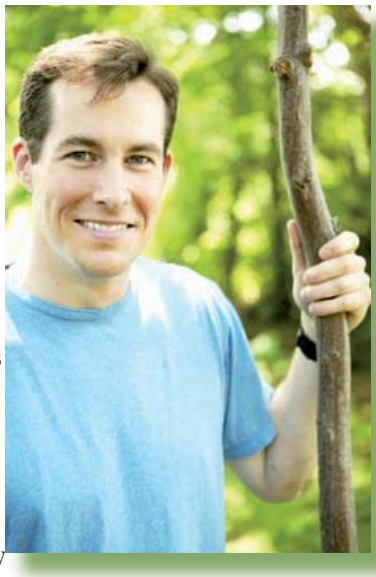

What's in This Article for You?

This article focuses on the following main topics:

- The impact of depression, both on individuals and on society as a whole.
- The role of physical activity in preventing and treating depression.
- How much physical activity people need to benefit their mental health.
- Bridging disciplines: The need for dialogue between physical activity and mental health professionals.

The Impact of Depression

Depression is one of the most common mental health disorders in Canada. Almost 11 per cent of Canadians may experience a major depressive disorder over the course of their lives (Patten et al., 2006).

Worldwide, depression is the leading cause of years lived with disability. People with depression also experience significant distress and a reduced quality of life (Uston et al., 2004).

Depression also has an economic impact. A Health Canada study suggests that depression and distress cost Canadians at least $14.4 billion annually in treatment, medication, lost productivity and premature death (Stephens & Joubert, 2001).

Medication and/or talking therapies are the front-line treatment strategies for depression. However, many people do not seek treatment, or wait too long to receive treatment.

Health professionals can never fully meet the need for treatment in mental health care. It's also useful to look at other strategies that could reach a broader population who can't access therapy or prefer not to use medication. There's growing evidence for the role of physical activity in preventing and treating depression.

> "Almost 11% of Canadians may experience a major depressive disorder over the course of their lives" (Patten et al., 2006).

Preventing Depression

At least five studies show that physical inactivity increases the likelihood of developing clinically defined depression (Department of Health, 2004). These studies involve large numbers of people and measure physical activity levels before depression.

For example, Camacho and colleagues (1991) linked inactivity and depression in a large population in Alameda County, California. This study group provided baseline data in 1965 and were followed up in 1974 and 1983.

The study categorized people's physical activity levels as low, medium or high. In the first follow-up (1974), the odds ratios (OR) of developing depression were significantly greater for both men and women who had been low active in 1965 (OR 1.8 for men, 1.7 for women) compared to those who were high active. Low active men and women were nearly twice as likely to develop depression in comparison to high active men and women.

How active should people be to help prevent depression? Data from a study of middle-aged Australian women showed that physical activity at levels below the currently recommended guidelines (i.e., about 60 to 150 minutes of moderate activity per week) may help prevent depression (Brown et al., 2005).

Treating Depression

The role of exercise in treating depression has perhaps received the most research attention. An analysis of 14 randomized controlled trials reported an effect size of 1.1 (Lawlor & Hopker, 2001) for exercise compared to no treatment for depression. The analysis also showed that the effects for exercise were similar to those found from other psychotherapeutic interventions.

These results indicate that depression scores decreased by approximately one standard deviation more in the exercise groups than in comparison groups. For example, studies using the Beck Depression Inventory (scores on this inventory can vary between 0 and 63) showed just over a seven-point difference in final depression scores in favour of the exercise group compared to a control group.

Blumenthal et al. (1999) compared the effects of exercise treatment and drug treatment in a sample of older adults. In this study, 156 men and women with a major depressive disorder were randomly assigned to one of three treatment groups:

- An exercise group consisting of three supervised exercise sessions (30 minutes of continuous cycle ergometry or brisk walking/jogging at 70–85% heart rate reserve) per week for 16 consecutive weeks.
- Antidepressant therapy (using sertraline).
- Combination of exercise and antidepressants.

After 16 weeks, all groups showed significantly reduced symptoms of depression (there were no significant differences across groups).

A 10-month follow-up (Babyak et al., 2000) found that improvements continued for at least six months after the treatment ended. Self-reported participation in exercise during the follow-up period was inversely related to the incidence of depression at 10 months. Each 50-minute increase in exercise per week was associated with a 50 per cent decrease in the odds of being classified as depressed.

A recent study on a smaller scale also found that the effects of exercise were comparable to sertraline in treating minor depression (Brenes et al., 2007).

Overall, exercise is effective in treating clinical depression and might be as successful as

psychotherapy or medication (Department of Health, 2004).

How Much Exercise Is Enough?

Current physical activity guidelines of 30 minutes of moderate physical activity on most or all days of the week can both help prevent and treat depression.

A recent study found that this amount of exercise was an effective treatment for mild to moderate depression (Dunn et al., 2005). It's important to recommend a range of exercise types and intensities based on the participant's previous exercise experiences, personal preferences, and strengths and goals. O'Neal and colleagues (2001) provide an excellent set of recommendations for supervising exercise training for people with depression.

While there are some methodological concerns with the existing evidence, there is consistent evidence that physical activity has a role to play in preventing and treating depression.

Because physical activity helps improve important aspects of physical health (such as obesity, cardiovascular fitness, and hypertension), promoting physical activity as a way to tackle depression is a "win-win" situation, with both physical health and potentially antidepressant benefits (Faulkner & Taylor, 2005). Physical activity may not be a panacea for depression, but people may find it useful either as a self-help strategy or in addition to other forms of treatment.

Bridging Disciplines

Physical activity and mental health professionals need to develop partnerships to provide physical activity opportunities for people to benefit from this broad-based form of intervention.

The total waiting time for psychiatric treatment in Canada can be as much as five months, which is nearly three times longer than recommended by specialists (Esmail & Walker, 2005). A dialogue across disciplines could start by considering a role for physical activity professionals during this delay in specialist treatment.

"At least five studies show that physical inactivity increases the likelihood of developing clinically defined depression" (Department of Health, 2004).

Useful Links

- Alberta Centre for Active Living. The centre's "Mental Health" website section contains a wide variety of resources on physical activity and mental health.
  http://www.centre4activeliving.ca/category.cgi?c=3;s=15

  Included in this section are the podcasts and other information from a 2006 centre workshop that brought physical activity and mental health professionals together in Alberta.
  http://www.centre4activeliving.ca/resources.cgi?s=15;d=1
- *At least five a week: Evidence on the impact of physical activity and its relationship to health. A report from the Chief Medical Officer.* This document from the U.K. sets out the latest research on the benefits of physical activity for health, including a chapter on physical activity and mental health.

  The document is for those concerned with forming policies or programs to promote physical activity, sport, exercise and active travel.
  http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4080994
- Canadian Mental Health Association. The Canadian Mental Health Association promotes the mental health of all and supports the resilience and recovery of people experiencing mental illness. The CMHA accomplishes this mission through advocacy, education, research and service.
  http://www.cmha.ca
- *Mind guide to physical activity.* Mind is a mental health charity in England and Wales. Mind has produced a series of self-help booklets, including one on physical activity.
  http://www.mind.org.uk/Information/Booklets/Mind+guide+to/Mindguidetophysicalactivity.htm

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of the Alberta Centre for Active Living

Working with practitioners, organizations, and communities to improve the health and quality of life of Albertans through physical activity.

IF YOU HAVE ANY SUGGESTIONS OR QUESTIONS, WE'D LIKE TO HEAR FROM YOU.

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WellSpring is published six times/year.
ISSN 1187-7472

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