

In the recent book *Overcoming the Fear of Fear: How to Reduce Anxiety Sensitivity* Dr. Sherry Stewart from Dalhousie University and I talk about the need for maintaining a healthy vehicle (i.e., one's body) to reduce and maintain reduced levels of anxiety. We also discuss how stress can increase the likelihood that we experience anxiety. Stress can arise from major life events (loss of a loved one, lack of employment, financial problems, serious injury or illness) or from daily hassles (traffic jams, housework, home repairs, noisy neighbours, too many emails). Work is a common source of stress and research shows that teaching is one of the most stressful occupations with its long working hours, demanding workload, staff shortages, challenging students and, sometimes, challenging co-workers. In a study conducted by Smith et al. (2000), which assessed the stress levels of various jobs in the UK, teaching came out on top with 42 per cent of teachers describing themselves as being "highly stressed".

Regular exposure to stress can impair one's physiological and psychological functioning (Taylor, 2003). Like death and taxes, however, stress is unavoidable, which is why we need to manage it effectively. This requires that we take good care of ourselves, especially the vehicle in which we live—our body. Just like our cars, trucks, boats, and snowmobiles, our body performs better when it has proper fuel (nutrition), good ventilation (breathing), and periodic breaks (rest). A vehicle works best, however, when operated regularly at a level that brings the motor up to its regular working temperature. For the human body, this means regular physical exercise at a level that increases the heart rate.

Research shows that regular physical exercise is important in the prevention and treatment of many medical disorders, including coronary artery disease, hypertension, diabetes, various cancers, obesity, and chronic obstructive pulmonary disease (Smits et al., 2008). Research also attests to the benefits of exercise in the prevention and treatment of psychological disorders. Regular exercise has been found to reduce symptoms of anxiety and depression; feelings of anger, time urgency, and time pressure; and to enhance cognitive performance and concentration; self-image; feelings of confidence and perception of

mastery; and sleep quality (DiLorenzo et al., 1999). Regular physical exercise is associated with an increase in endorphins both during and after exercise (Harber & Sutton, 1984). Endorphins contribute to pain relief, stress reduction, immune system enhancement, and postponement of the aging process (Salmon 2001).

Physical exercise is recognized as a valuable coping technique for managing stress and anxiety (Ingledeu & Sullivan, 2002). Exercise may confer a prophylactic effect by increasing our resilience to stress (Salmon, 2001). Ströhle and colleagues (2009) investigated the anti-anxiety effects of acute exercise in 12 patients with panic disorder and 12 matched healthy controls. They compared the effects (panic attack frequency, anxiety and somatic symptoms) of quiet rest to an aerobic treadmill exercise (30 minutes at an intensity of 70 per cent of maximal oxygen uptake) on chemically-induced panic attacks. They found that induced panic attacks were less frequent following prior exercise, occurring in only five participants after exercise (four patients and one control) as compared to 15 participants after rest (nine patients and six controls). In both patients and healthy controls, the severity of the induced panic and anxiety was reduced by exercise.

Brooks et al. (1998) compared the anti-anxiety effects of physical exercise to a tricyclic antidepressant (i.e., Clomipramine), and a placebo in a sample of 46 outpatients diagnosed with panic disorder. Participants were randomly assigned to one of the three conditions. The exercise condition consisted of a 10-week graded aerobic exercise program where participants were asked to walk/run a four-mile route between three to four times per week. Results showed that both the exercise group and the Clomipramine group showed significant improvements at post-intervention (i.e., 10 weeks) for all measures of anxiety as compared to the placebo condition.

In 2001, Dratcu described the results of

three case studies of middle-aged women who met the diagnostic criteria for panic disorder. Two of the three women also presented with depressive symptoms. The women had been encouraged to participate in regular physical exercise after failing to show significant treatment gains following psychological and/or pharmacological interventions. All three women adopted a graded exercise program increasing in duration (30 to 60 minutes), frequency (one to three times per week), and/or intensity. One woman chose to adopt brisk walking and jogging while the other two women chose swimming. Results showed that the three women's anxiety symptoms and panic attacks completely resolved after two to three months of exercise participation.

Although the aforementioned studies focused on anxiety, several studies have demonstrated the benefits of physical exercise in reducing symptoms of depression; stress, anger, and cynical distrust; and improving social functioning and vitality

among persons with substance use disorders. Moreover, prospective studies have shown that physical exercise is associated with decreased risk for developing depression even after controlling for age, social economic status, and educational level (Smits et al., 2008).

In short, regular physical exercise appears to be a cost-efficient way of preventing and treating both physical and psychological problems. So how much exercise do we need? Health Canada's *Physical Activity Guide* (2007) advises 60 minutes of light-intensity activities every day to stay healthy or improve your health. The time needed depends on effort. Light intensity exercise, such as strolling/light walking, dusting, light yard work such as gardening, stretching, yoga, volleyball, requires about 60 minutes a day. Moderate-intensity exercise, such as brisk walking, biking, heavy yard work (e.g., raking leaves), swimming, dancing, water aerobics, stair climbing, requires 30-60 minutes, four to five days a week. Vigorous intensity exercise, such as aerobics, running, skating or hockey, basketball, fast swimming, fast dancing, tennis, cycling, requires only 30 minutes a day. Moreover, the 30 minutes can be made up of three 10-minute bursts of activity spread across the day. Also, the activity can be a "lifestyle activity" (for example, walking in the mall or taking the dog out), structured exercise or sport, or a combination of all three. It is not the activity per se but the time and intensity that counts (Health Canada 2007).

In short, regular physical exercise can protect us from the ravages of daily stress. In the film *La Dolce Vita*, one of the characters says, "I want to live my life so that it cannot be ruined by a phone call." Practicing good stress management is one way of ensuring that no one event completely derails us, and good stress management begins with a healthy body. As John Locke said: "A sound mind in a sound body is a short but full description of a happy state in this world."

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Please contact Erin at [ekeefe@nstu.ca](mailto:ekeefe@nstu.ca) to provide her with your NSTU email address. The **Be\_Well@nstu.ca** list will provide information about the EIP and other wellness topics.

