

Working off depression

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A good workout makes you feel better, and regular exercise not only enhances physical health but can lift mood, reduce stress, and heighten self-esteem by improving appearance and physical strength. But how useful is exercise for people with severe depression or anxiety or chronic mental illness? Hundreds of studies now show that it can help — but there are qualifications.

Many reviews and meta-analyses show that regular physical activity is correlated with improvement in clinical depression and anxiety, mild to moderate depressive symptoms, insomnia, and resilience under stress. People who become or remain physically fit or active are less likely to develop clinical depression.

For example, in a study published in 2005, researchers examined the effect of a three-month exercise program on mild to moderate depression. About 80 participants were divided into five groups. Two groups took on a rigorous “public health dose” program, one of them for three days a week and the other for five days a week. Two groups instead participated in lighter “low-dose” exercise three or five days a week. A fifth group, the controls, practiced only stretching for flexibility.

Ratings of depressive symptoms on the standard Hamilton scale fell in all five groups, but the rigorous exercise program caused the biggest drop, an average of 47%. That made it about as effective as antidepressant medications or cognitive behavioral therapy, standard treatments for depression. The low-dose exercisers did no better than the controls, but even patients in these three groups showed some improvement. Any physical activity may have helped.

Exercise has also been found equivalent to cognitive behavioral therapy and antidepressants in direct comparisons. One study compared aerobic exercise with antidepressant drugs or a combination of the two in patients with major depression. After 16 weeks, 60%–70% in all three groups had recovered from the depressive episode, but the exercise effects may have lasted longer. Ten months later, patients in that program had a lower rate of depression than those who took only medication. In other studies, exercise programs have equaled the effect of cognitive behavioral therapy on depression and anxiety.

In a study of more than 2,000 elderly people, daily walking predicted improvement in depressive symptoms over a three-year period. A comparison of aerobic exercise alone, exercise with stress management training, and routine medical care for patients with heart disease found that after 16 weeks, patients in both exercise groups had lower rates of depression. Similar results have been found for anxiety disorders — panic disorder, generalized anxiety, and post-traumatic stress.

Exercise is well known to improve sleep, partly because depression and anxiety are major causes of insomnia. For example, one study found that 16 weeks of moderate exercise helped a group of middle-aged insomniacs to fall asleep an average of 15 minutes sooner and sleep 45 minutes longer.

How it works

It's obvious that poor physical fitness can lead to ill health, and ill health to depression and anxiety. If physical condition and depressive symptoms are mutually reinforcing, treating one can improve the other. But that is apparently not how exercise works in most cases. In a review of 30 trials, it made little difference how much a person exercised, how intensely, or how long. What mattered was only how long the program lasted — at least two months. Besides, in most studies, improvement in depression and anxiety is not correlated with increased strength or cardiovascular health. And aerobic exercise and strength training are usually found to be equally effective.

Other possible explanations for the mood enhancing effect of exercise include enhanced body image, social support from exercise groups, and distraction from everyday worries. Meeting the challenge of continuing exercise may heighten self-confidence. Physical activity may affect mood by altering the circulation of the neurotransmitters serotonin, norepinephrine, and the endorphins.

Another theory starts with the observation that for most people, not only those who are depressed or anxious, an exercise routine is difficult to start and even more difficult to keep up. It's possible that exercise is a form of controlled, predictable stress that supplies a kind of vaccination against the uncontrolled stress that leads to depression and anxiety.

Problems

It's also possible that this effect of exercise is an illusion. According to some surveys and purely observational studies, it could be that depression and anxiety prevent people from exercising rather than the other way around. Or some feature of personality or upbringing might cause both depression and sedentary habits. In some studies, the patients least likely to relapse are those who continue to exercise when they are no longer participating in a formal program. So ability to exercise might be evidence that the depression or anxiety has improved rather than a cause of the improvement.

Even controlled trials often present problems — especially insufficient follow-up, the difficulty of correcting for the effect of expectations, and the fact that people who volunteer for exercise studies are not necessarily typical. Many other factors may be incidentally associated with exercise, too — the chance to master a skill, associate with a group of like-minded people, or just do something interesting and engaging.

These doubts may not matter, because exercise does so little harm (apart from injury, there is the rare risk of exercise addiction, mainly in people suffering from anorexia nervosa). But low motivation is a problem. We are often told to find an activity we enjoy, but depressed people don't enjoy anything much. So it's necessary to begin slowly and remind them that exercise does not have to be strenuous to be helpful. Walking, gardening, or household work will do. Some will want to exercise by themselves; others may prefer to join a friend or group for encouragement and mutual aid.

Exercise will not have the same effect on everyone, and by itself, in most cases, is not an answer to problems of mental illness. But it costs little or nothing, rarely has harmful side effects, and almost always promotes physical health. Although it is no magic remedy, there is little to lose and everything to gain by trying to work off depression and anxiety.

<http://www.health.harvard.edu/newsweek/Working-off-depression.htm>