

## Exercise helps with depression, study shows

By Carolyn Poirot

Knight Ridder Newspapers

Suzy Sumrall saw the “patients wanted” ad in the McKinney (Texas) Courier-Gazette shortly before Thanksgiving.

“The words ‘exercise’ and ‘depression’ together caught my attention,” says Sumrall, 57. “I was depressed, and I certainly needed the exercise.”

Now, she is eight weeks into a six month study to determine the benefits of supervised exercise for patients under treatment for major depressive disorder. She says she feels the best she has since her “blah, dull, bland, sad” mood was diagnosed as depression more than 12 years ago.

“I felt so much better on anti-depressants, but I hit a plateau where I thought I would be for the rest of my life,” says Sumrall. “With exercise, I have more energy and feel better about myself.”

“I couldn’t have made it here today if I had not been exercising,” she said on a cold, wet, windy day in Dallas. “I could not have made it down the highway in this weather and faced cameras and question if I were still depressed. Sometimes I didn’t think I could get out of bed.”

The University of Texas Southwestern Medical Center in Dallas and the Cooper Institute are enrolling additional participants in the clinical trial to determine whether a regular exercise routine combined with targeted medications can cure depression.

The estimated annual cost of depression in the United States is \$43.7 billion. A remarkable 17 percent of the U.S. adult population reports a major depressive episode at some point in life. About 5 percent of the population 18 and older – 6.7 million women and 3.2 million men – suffer from major depressive disorder in any given year, according to the National Institute of Mental Health.

“Getting patients better is a lot easier than getting them well,” says Dr. Madhukar Trivedi, associate professor of psychiatry and director of the Depression and Anxiety Disorders Program at UT-Southwestern. “We are most interested in pushing the idea that just getting them better is not good enough. Fifty percent improvement used to be thought the best we could hope for. Getting people into full remission is now the goal.”

Trivedi is principal investigator for the new clinical trial, funded by a \$2.4 million grant from the National Institute of Mental Health.

There are about 25 good anti-depressants available, and almost everyone can get some relief from one or more of them. Trivedi says, but he and others are convinced that a “public health dose” of exercise (30 minutes of moderate exertion most days) can improve the outcome of drug treatment.

And because it works to make people feel better much more rapidly than most drugs and has no negative side effects other than a few muscle aches in the beginning, he believes patient compliance will be at least as high as it is for anti-depressant drugs. Studies show 30 to 66 percent of patients prescribed drugs for depression stop taking them within one month.

“What I think happens is that it is harder for patients to begin to do exercise, but once they see the benefits and see that there are not bad effects, it is easier to maintain. With a drug, you may feel some negative side effects (dizziness, confusion, blurred vision, nausea, clumsiness and sexual dysfunction, among others) before you feel the good it is doing,” he says.

### Dose of Exercise

Researchers from the Cooper Institute say a “public health dose” of exercise might provide relief from depression. So just what is a “public health dose” of exercise?

▲ It’s physical activity in one week that burns 1,200 calories. That exercise can be spread out over the week in any time increments, from walking 12 miles in one long session to three 10-minute walks per day.

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*Posted in “Sunday Gazette-Mail” on March 7, 2004; p 7A*

More than 1,600 people volunteered for a related study two years ago that examined exercise as an alternative treatment for mild to moderate major depressive disorder. Andrea Dunn, vice president of behavioral science research at the Cooper Institute, was principal investigator for that study, which looked at patients who were not on medication.

The researchers varied the frequency of exercise and energy expended and found that the recommended “public health” dose of 30 minutes a day most days of the week or 60 minutes a day three days a week, significantly reduced the symptoms of depression.

They used a standard rating scale to assess the severity of 17 symptoms, including such things as sad, anxious or empty mood, hopelessness, insomnia and thoughts of suicide.

“There was a real reduction in symptoms – 47 percent reduction in the high-dose group, 30 percent in low dose, 28 percent in the controls,” says Dunn, who was principal investigator for the DOSE Study (Depression Outcomes Study of Exercise). Results are very comparable to the relief patients get from medication or psychoanalysis, she says.

Still, exercise has a long way to go in clinical trials.

There have been fewer than 20 studies of exercise’s effects on depression, compared with some 600 on anti-depressant drugs since 1995, and only four or five of the exercise-and-depression studies used strict controls.

DOSE was the first randomly controlled study to use solo exercise, so that social support could be eliminated as a factor in the relief of symptoms – and it is yet to be published in a major medical journal.

The study varied the frequency and energy expended in exercise. Researchers learned that frequency (three times a week versus five) does not seem to make a difference, but total energy expended (1,200 calories a week versus 500) did make a difference. The high-dose response was much better than low-dose or control groups.

“In terms of remission, almost twice as good,” Dunn says.

After having major depression diagnosed in 1996, Marla McDonald, 42 completed a six-month pilot study on the use of exercise with anti-depressants about a year ago.

“Zoloft got me out of a place where I really wasn’t functioning. I felt incredibly scattered and not focused. I was just overwhelmed by thing I know I should be able to do, and the drug got me out of that place, but I never felt 100 percent,” McDonald said. “Exercise took me there. I felt better in two weeks, and it only took about a month to get me to the optimum. Absolutely, I feel better mentally and physically.”

McDonald, who walks almost every day – at least five or six days a week – says she has been most surprised by how little it takes.

“Walking for 30 minutes a day at a pace like window shopping can make a big difference,” she says. “On days when I have 101 excuses not to do it, I remember how little I have to do to feel so much better.”

“Now I can make myself do it because I literally know I can get back out of a down slide and feel better in 20 minutes. The hardest part is tying your shoes.”