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Therapy plan offers hope for Parkinson's

By Deborah Mayaan
SPECIAL TO THE ARIZONA DAILY STAR

Green Valley resident Bob Downing, says that after eight sessions of a physical therapy program developed for people with Parkinson's disease, his problems with his wrists and fingers have been reduced.

To learn more

To learn more about Power Over Parkinson's, visit www.azapda.org or call 326-5400.

To contact the Green Valley Parkinson's support group, call Ora Keller at 393-0723.

That's good news for Becky Farley, a physical therapist and neuroscientist at the University of Arizona. Farley developed the exercise program two years ago in Green Valley and returned in June to work with people in a study funded by the National Institute of Health.

Parkinson's is a neurological disorder that affects movement, with symptoms that include tremors, rigidity, slowness, poor posture and problems maintaining balance. The disease occurs when dopamine-producing cells in the brain die. Dopamine is a neurotransmitter that stimulates the nerve cells that control the muscles.

If a person is low in dopamine, when the brain sends a signal to the muscles to perform an action like reaching for a cup, the muscles are not activated adequately, and the person's arm may hesitate or get only part of the way there.

The decreased signal capacity affects all aspects of people's lives; their handwriting gets small and slow, and their voices become soft, Farley said.

To treat voice problems and speak at a more normal volume, people are taught to "think loud," so the brain sends a bigger signal to the voice muscles.

Cynthia Fox, a Tucson instructor of the voice treatment, helped Farley apply the concept to physical movements.

In the "Think Big" physical therapy program, a participant may feel she is making a huge movement, but to the observer it is a normal-sized movement.

Farley is gathering data on participants in Green Valley and Tucson, to find out if 16 sessions a month will result in improved functioning. Half of the study participants train with Farley, and the other half receive traditional physical therapy.

The conventional treatment for Parkinson's disease is to administer dopamine to make up for what the body is not producing, but the treatment loses effectiveness over time, said Farley. Medicines that mimic the effect of dopamine produce side effects, such as involuntary movements.

Researchers at other universities have also been studying the effects of exercise.

Farley said the cognitive strategies of Think Big may complement these exercises.

Green Valley resident Bob Davison has attended an exercise group run by the Green Valley Parkinson's support group for six months. He said the improvement in function he experienced there prepared him for the work with Farley.

Since working with Farley, he's found it easier to get out of bed, reach into cabinets and perform other everyday tasks. His wife, Joanna, noted that as well as taking bigger steps, he walks more, moves faster and has more confidence.

In addition to conducting research, Farley is working with the Arizona Chapter of the American Parkinson's Disease Association to develop the Power Over Parkinson's program. The program educates people with Parkinson's and teaches health-care providers about treatment options.

A resource directory helps people with Parkinson's find knowledgeable providers of conventional and complementary therapies.

When a patient in the study said his neck was freezing up, Farley recommended massage. Tai chi, guided imagery and self-hypnosis are also featured, since stress aggravates Parkinson's.

Antioxidants can slow the progression of the disease, said Dr. Bryan McConnell, a naturopathic doctor at the First Resort Naturopathic Medical Clinic.

● *Deborah Mayaan is a free-lance writer based in Tucson.*

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