

## Electroconvulsive therapy transforms lives

Published: Sunday, May 20, 2012, 12:00 AM

Against a backdrop of childhood abuse, Wanda Rupp built a happy life — with the love of a husband, her two children and a satisfying career — until one day darkness came over her and brought everything to a halt.

“I didn’t feel like doing anything. I just wanted to fall into bed and not get up,” said the Middle Paxton Twp. woman, recalling the nervous breakdown she suffered at age 48. “I was lucky my husband stuck by me. I didn’t want to see anyone. I began losing weight. I was depressed all the time.”



The Patriot News Wanda Rupp gets ready for electroconvulsive therapy at the Pennsylvania Psychiatric Institute on Third Street in Harrisburg.

Rupp went to a psychiatrist who diagnosed her depression and put her on one and eventually a series of anti-depressants, none of which worked.

“My husband would go to work and I would be outside on the lawn, wandering. The medications put me out in an atmosphere where I was nowhere,” she said. Eventually, she ended up hospitalized because she was suicidal.

Finally her psychiatrist suggested she try electroconvulsive therapy, or ECT. This involves passing electrical currents through the brain to trigger a brief seizure that seems to cause a change in brain chemistry. The net effect is relief from depression and mental illnesses, often when other treatments have failed.

“If it wouldn’t be for ECT, I don’t think I would be here,” said Rupp, now 61. “I definitely have my quality of life back. When you wake up and you feel good and hopeful ... I’m thankful for that every day.”

Electroconvulsive therapy carries a negative image in popular culture and is not commonly prescribed because of the stigma surrounding it. There are conflicting studies about its effectiveness. However, many experts say it is safer, more effective and works faster than drug treatments for depression.

“Jack Nicholson dramatically portrayed ECT in ‘**One Flew Over the Cuckoo’s Nest**’ and people still carry that picture in their heads,” said Dr. T. Ling Tan, who administers ECT at the **Pennsylvania Psychiatric Institute in Harrisburg**, one of only a few places in the midstate that offer the therapy. “Even psychiatrists may feel reluctant to prescribe ECT.”

That’s a shame, Tan said, because people who suffer with chronic depression for years, often skipping from one anti-depressant to another, are missing out on an effective treatment that could transform their lives.

“It’s common that after a drug treatment fails, you go to a more effective treatment like ECT, but ECT should not be a last resort. It should be a first choice,” he said. “It should definitely be considered first for depressed, suicidal patients because anti-depressants can take six to eight weeks before we know if patients are on the right medication and the right dose. With ECT, after the first week, we can see a turnaround.”

It is also the safest depression treatment for frail, elderly people and for pregnant women, he said.

It is prescribed for treatment of major depressive disorder — depression lasting two or more weeks — and for bi-polar disorder depression. It works on depression that is biological in nature and is not for “situational” depression that arises from a life event, Tan said. It has also been shown effective for people who suffer from movement disorders, such as **Parkinson’s disease**.

The American Psychiatric Association in 2007 came out with a position statement calling ECT “a safe and effective evidence-based medical treatment” and it is also endorsed by the U.S. Surgeon General.

However, stigma persists and educating doctors and patients on modern-day ECT and its benefits is key to reversing that stigma, agreed Dr. Irving M. Reti, director of the **Brain Stimulation** Program at **Johns Hopkins** in Baltimore, and Jesus Gallegos, coordinator of the program.

They have recently expanded their ECT program to make it more available to outpatients and have seen some increase in the number of patients undergoing treatment.

Still, they say, fear surrounding ECT acts as a barrier to many patients who would otherwise benefit from the treatment.

For Rupp, there was no hesitation to try ECT. “I wasn’t nervous; the only thing I was thinking was, ‘Is this going to help me?’ I hoped and prayed it would. There is nothing worse to me than being depressed,” she said.

No one really knows why ECT works, said Tan, who is a professor of psychiatry at Penn State College of Medicine in Hershey.

“Just like your computer stops working efficiently and it needs to be rebooted, we say you are resetting your brain with ECT,” he said.

The use of ECT dates to 1938 in Rome. This classical ECT involved stimulating the brain to cause a grand mal seizure, including arching of the back and a jerking convulsion.

Today's modified ECT is much different because there is no convulsion and the procedure is done under general anesthesia.

"We give a muscle relaxer prior to the electrical current so while the brain still seizes, the skeletal muscle does not have a convulsion," Tan said.

Before the 10-minute treatment, which can be either an outpatient or in-patient procedure, electrodes are placed on the head. After the patient is asleep, Tan administers two to four seconds of electrical stimulation through the electrodes into the brain to cause the seizure. The seizure, which is recorded on an electroencephalogram, lasts less than a minute and the patient is asleep for just four to five minutes Tan said.

The main drawback associated with ECT is cognitive side effects, such as memory loss, Reti said.

"Current research in the field focuses on reducing these issues without sacrificing treatment efficacy," he said. For instance, recent studies have shown that the use of ultra-brief pulses during ECT reduce the cognitive side effects yet still produce the same results.

Treatments are usually given three times a week for two weeks. The patient should experience significant relief from symptoms after the third treatment. If not, seven or eight treatments might be needed, Tan said.

"The results are pretty dramatic," he said. "The patient goes from not even wanting to talk or look at you to laughing and joking with you. It can be a life-saving procedure because it gives such fast relief from depression."

Though ECT has fallen in and out of favor in the past with the advent of drug medications, Tan said no other technique has replaced its effectiveness in the 74 years since its first use.

Reti agreed. "It has the highest success rate of any FDA-approved treatment for depression, with response rates ranging between 60 to 90 percent," he said. Its lasting effects vary among individuals. Some patients may have one course of treatment and not need another for years while others need "maintenance" treatments every four to six weeks.

"I plan to keep doing it for life," said Rupp, who has since learned that depression runs in her family. Sometimes, after ECT, previously ineffective anti-depressants start to work, as in Rupp's case. She takes an anti-depressant along with her maintenance ECT.

Rupp said some of her extended family has called her crazy for doing ECT, but it's that attitude that Rupp hopes to dispel by talking openly about it.

"I just turn my back on the ridicule," she said. "I hope to reach out and help people

who may be in dire need of ECT but are afraid of it. It can be something very positive for you. I hope that by speaking, I can take away some of the stigma."