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ment of schizophrenia in adolescents ages 13 to 17, and for the short-term treatment of bipolar mania associated with bipolar I disorder in children and adolescents ages 10 to 17, respectively. The FDA has not requested additional studies.

*Source. "FDA Issues Approvable Letter for Risperdal® to Treat Adolescents with Schizophrenia and Children and Adolescents with Bipolar Mania." (2007, June 21). Retrieved June 22, 2007, from <http://media.prnewswire.com/jsp/infocenter/content/printable.jsp?resourceid=3499762>.*

## Novel Noninvasive Device May Improve Depression Symptoms

According to data presented at the annual meeting of the American Psychiatric Association, NeuroStar® Transcranial Magnetic Stimulation (TMS) therapy significantly improved the quality of life and functioning of patients with moderate to severe depression who had not received adequate benefit from antidepressant therapy. NeuroStar TMS therapy is a noninvasive medical device being clinically studied in depression. The device works by delivering highly focused, strong magnetic field pulses that stimulate the brain



nerve cells linked to depression. Because it does not require sedation or anesthesia, it can be administered as an outpatient procedure.

At baseline, the study population ( $N = 301$ ) had significant symptomatic and functional impairment related to depression. After 4 weeks, patients receiving NeuroStar TMS therapy ( $n = 155$ ) versus placebo experienced statistically significant improvements, as measured by the General Health and Mental Health subscales and the Mental Component Score of the SF-36. After 6 weeks, these patients experienced significant improvements on the SF-36 Role-Emotional subscale and the Quality of Life Enjoyment and Satisfaction Questionnaire.

A second, open-label trial evaluated the acute efficacy of NeuroStar TMS therapy administered as monotherapy in 158 patients for 6 weeks. At the end of the 6-week period, medication monotherapy was co-administered during a 3-week taper phase. Patients treated with NeuroStar TMS therapy experienced a significant improvement in

## Computerized Vest Monitors Mental Illness

Patterns of movements differ between patients with bipolar affective disorder and those with schizophrenia, according to a study using a novel device called a LifeShirt®—a computerized vest that continuously monitors hyperactive and repetitive movements and collects data on respiration, heart rate, and other physiological measures. The behavioral pattern monitor research, which was presented



at the Society of Biological Psychiatry meeting, is based on parallel studies with rodents, which exhibited abnormal movement patterns and difficulties in filtering information when administered amphetamines or when genetic abnormalities that affect brain chemistry were present.

Patients' movements while wearing the vest were characteristic of the manic phase of bipolar disorder. Patients with bipolar disorder exhibited hyperactivity and a wide range of exploration when in a novel environment, whereas the movements of patients with schizophrenia were much more restricted. It is sometimes difficult to diagnose whether an individual is exhibiting signs of schizophrenia or bipolar disorder. However, patients in the two study groups showed different patterns of exploration in new environments.

The research also aimed to determine how patients with bipolar disorder filter unimportant information from the environment; difficulty doing so may lead to the inappropriate behaviors that often occur during manic episodes. The researchers hope to discover new and improved drugs by comparing studies of the brain's screening or filtering mechanisms in patients with mania before and after medication with observations of how rodents' movement patterns are altered after taking medication. The collective findings could offer insight into the chemical imbalances and genetic abnormalities that contribute to bipolar disorder.

*Source. "Wearable Technology Helps Monitor Mental Illness." (2007, May 16). Retrieved May 17, 2007, from <http://www.newswise.com/pl/articles/view/530076/>.*

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