Gene Variants Protect Against Adult Depression Triggered by Childhood Stress

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The study also supports previous evidence that a stress hormone, corticotropin-releasing hormone (CRH), plays a role in depression. The variations are in a gene that makes a receptor for the hormone. Receptors are proteins that act as binding sites, in or on cells, for chemical messengers that affect cell function. The receptor for CRH is called CRHR1.

CRH and its receptor are part of a larger hormone system that regulates the response to stress, in part by helping to regulate neurotransmission – the chemical messages through which brain cells communicate with each other. Extreme stress in childhood caused by factors such as abuse can hyperactivate the system, increasing risk of depression in adulthood.

“Our results suggest that genetic differences in CRH-mediated neurotransmission may change the developmental effects that childhood abuse can have on the stress hormone system – developmental effects that can raise the risk of depression in adults,” said Ressler.

To conduct their research, scientists interviewed 422 adults, mostly African American, and tested their DNA. About one-third of them had the variations in the CRHR1 gene that appear to be somewhat protective if early-life stress has occurred. Of the people in the study who had a history of child abuse, those with certain variations had only about half the symptoms of moderate to severe depression as those who had more common variations in the same gene.

The finding was strengthened when the researchers repeated the study in 199 white adults and came up with similar results. In addition to racial differences, the two groups differed socioeconomically. The combined findings suggest that the gene variations are protective across the ethnic groups and socioeconomic levels.

Additional research funding from the National Institutes of Health was provided by the National Center for Research Resources and the National Institute on Drug Abuse. Emory University, the Emory and Grady Memorial Hospital General Clinical Research Center, and the Burroughs Wellcome Fund also contributed.

Resource: National Institute of Mental Health, February 2008

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Recent Finding Could One Day Help Identify People at Risk.

Certain variations in a gene that helps regulate response to stress tend to protect adults who were abused in childhood from developing depression, according to new research funded by the National Institute of Mental Health (NIMH), part of the National Institutes of Health. Adults who had been abused but didn’t have the variations in the gene had twice the symptoms of moderate to severe depression, compared to those with the protective variations.

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Mood Disorders Predict Later Substance Abuse Problems

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help clinicians individualize care for their patients by predicting who may be at risk or suggesting more precise avenues for treatment.”

Almost 15 million U.S. adults have major depression. The new report adds to evidence that a combination of gene variations and life experiences promote the disorder or protect people from it. Variations in many genes are thought to be involved, but few of them have been identified.

Results of the study were published in the February 4 issue of the Archives of General Psychiatry, by Kerry J. Ressler, M.D., Ph.D., of Emory University, Rebekah G. Bradley, Ph.D., of the Atlanta VA Medical Center, and others.

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Mood Disorders Predict Later Substance Abuse Problems

Mania symptoms and bipolar disorder II more likely to lead to substance abuse than depression.

People with manic symptoms and bipolar disorder type II are at significant risk of later developing an alcohol abuse or dependence problem, a long-term study conducted in Switzerland confirms. The study was published in the January 2008 issue of the Archives of General Psychiatry.

Extensive research using retrospective reports has demonstrated a clear association between mood disorders and substance abuse. But few prospective long-term studies have been able to show evidence of this.

Kathleen Merikangas, Ph.D., of the NIMH Mood and Anxiety Disorders Program, collaborated with colleagues to follow 591 people (292 men and 299 women) over two decades, beginning in 1978 when the participants were 19 or 20 years old. The participants were interviewed six times between 1979 and 1999.

By 1993, almost 10 percent met criteria for major depression. Although bipolar disorder type I was very rare, 4 percent met criteria for bipolar disorder II—a milder form of the disorder. In addition, 24 percent had symptoms of mania but did not meet specific criteria for bipolar disorder.

By 1999, when participants were about 40 years old, 18 percent met criteria for alcohol abuse or dependence problems, while 8 percent met criteria for cannabis (marijuana) abuse and 3 percent met criteria for benzodiazepine abuse.

Merikangas and colleagues found that people who showed symptoms of mania, but who did not meet criteria for bipolar disorder, were at significantly greater risk for later developing an alcohol abuse or dependence problem. Those with bipolar disorder II were even more at risk of developing an alcohol problem or benzodiazepine abuse problem. Major depression was associated only with developing a benzodiazepine abuse problem among this population.

“The findings confirm the link between mood disorders and substance abuse or dependence problems,” said Dr. Merikangas. “They also suggest that earlier detection of bipolar symptoms could help to prevent consequent substance abuse problems.”

This study was known as the Zurich Cohort Study.


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A Workout a Day Keeps Depression at Bay

A study at the University of Texas Southwestern Medical Center (reported in the Journal of Preventive Medicine), confirms what physicians and mental health professionals have been advising for many years:

Exercise can be effective in reducing and managing the symptoms of depression. The research was funded by National Institute of Mental Health.

Mild to moderate symptoms of depression were reduced almost 50% in adults aged 20 to 45 who engaged in 30 minutes of moderately intense aerobic exercise three to five times per week. The aerobic exercises in this study included treadmills and stationary bicycles.

Symptoms of depression typically include negative thoughts, decreased ability to make decisions or to tolerate frustration, lethargy, irritability, a sense of hopelessness, and sleep irregularities. While adults with symptoms of depression typically view exercising as a chore, this study makes clear the benefits of becoming an active participant. Consistent exercise can lead to consistently feeling better.

Because aerobic exercise involves increasing and sustaining the heart rate at levels higher than those required for basic daily activities, always consult a physician prior to beginning or significantly increasing an exercise program. Also be aware that exercise is not a replacement for medical treatment of moderate to severe symptoms of depression. In general, symptoms of depression can be most effectively managed by a combination of counseling, medical treatment and making an investment in a healthy, physically active lifestyle.

Contact First Choice Health PAP for more information about the symptoms of depression at (800) 777-1323 or visit us online at www.FirstChoiceDoc.com to make use of the Screening Tools for depressions, anxiety, assertiveness and/or stress.

Online Work Life Resources

Our self-serve menu of learning tools, information and resources on various topics ranging from infancy to adolescence to adulthood to senior living is available 24/7 at: www.FirstChoiceDoc.com

Click on the Work Life Resources button and enter your Username and Password. To obtain login information, contract HR or the PAP at (800) 777-1323.

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