

Research to Advance

Mental Health Care



DISCOVERY — INNOVATION — ADVANCEMENT

## MENTAL HEALTH

World-class investigators with the VA Research and Development program are at the leading edge in research to advance mental health care for veterans and ultimately for all Americans.



Veterans Health Administration  
**Research & Development**  
Improving Veterans' Lives — [www.research.va.gov](http://www.research.va.gov)

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## A Message to Our Veterans

### VA Research—Advancing Care for Veterans with Mental Health Care Needs

VA investigators, many of whom also provide patient care, are pioneering advances in the understanding and treatment of mental health disorders. Current studies are looking at a wide range of mental health-related issues affecting veterans—from aging veterans to the new generation who served in Afghanistan and Iraq. Researchers are looking at various potential approaches for treating and preventing mental health disorders and also at related issues such as developing and evaluating collaborative primary care models and improving access to services from remote areas using the Internet and other progressive technologies.

Focus areas include mood disorders such as depression and bipolar disorder, anxiety disorders such as post-traumatic stress disorder (PTSD), psychotic disorders such as schizophrenia, dementia and memory disorders, and substance use disorders. VA investigators also focus on the co-occurrence of mental health issues and physical disorders—depression in those with spinal cord injury or substance use by patients with chronic pain, for example.

**This brochure highlights examples of VA Research's trailblazing discoveries and innovations in support of veterans' mental health care needs.**



**Joel Kupersmith, M.D.**  
Chief Research and Development Officer  
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### ACCESS TO CARE

**VA operates the largest mental health care system in the country, providing veterans:**

- More than 11,000 mental health care professionals, with more than 800 psychologists hired in just the last 3 years.
- General inpatient psychiatric services at 132 medical centers across the nation.
- Mental health outpatient services at more than 685 medical centers and community-based outpatient clinics.
- Readjustment counseling services for veterans and their families at more than 232 Vet Centers across the country.
- **A new suicide hotline (1-800-273-TALK)** available 24 hours a day, seven days a week, to help veterans in need, and suicide prevention coordinators at each VA medical center.



## Spotlight on VA Research Advances

### Mood Disorders

VA Research is making important headway in the treatment, screening, and diagnosis of mood disorders such as depression, bipolar disorder, persistent despondency, and seasonal affective disorder.

**Important areas of VA research on mood disorders include:**

- Determining the benefits of cognitive behavioral therapy, a type of psychological therapy that examines patterns of thought and belief.
- Developing models of family interventions and social support to promote recovery from mood disorders.
- Understanding whether certain risk factors make a person more likely to suffer from depression or respond to a specific medication.
- Identifying and testing potential new drugs for depression.

VA Research's "Translating Initiatives for Depression into Effective Solutions" (TIDES) project has shown that most veterans with depression and no other serious medical conditions can be effectively treated in primary care settings. The TIDES model of care is a team approach in which primary care providers and mental health specialists work together, with a "care manager" to help with coordination.

### Anxiety Disorders

Anxiety is a normal biological reaction to a stressful event, but in some cases, anxiety continues for a long period and may worsen over time, with symptoms such as nightmares, racing pulse, and overreactions. In persistent cases, anxiety disorders such as post-traumatic stress disorder (PTSD), panic disorders, or phobias may develop.

**VA research toward improving treatment for patients with anxiety disorders includes:**

- Using brain imaging to study differences between patients with and without anxiety disorders.
- Studying anti-anxiety (as well as anti-depressive) drugs to determine how they work in the brain, and how hormones and other chemicals may influence drugs' effectiveness.
- Further exploring the VA-discovered genetic and biochemical pathways that show a link between anxiety and alcoholism and may point the way to new drug targets for both conditions.

### Post-Traumatic Stress Disorder

In recent years, VA investigators have made vital strides in understanding how the brain works in PTSD, an anxiety disorder sometimes associated with combat veterans but that also occurs in the general population. VA researchers have established much of the evidence relating to the biological basis of PTSD—a disorder that during past wars was called "soldier's heart," "shell shock," or "combat fatigue."

VA researchers have looked at many different aspects of PTSD, including associated brain changes; factors that may increase a person's risk for developing the disorder; and strategies for prevention and treatment.

Dr. Robert Freedman, with the Denver VA Medical Center, has earned VA's highest biomedical research honor, the William S. Middleton Award, for his achievements in schizophrenia research. Dr. Freedman's exploration of the role of a gene associated with both nicotine addiction and inherited risk for schizophrenia has led to the development of a potential new treatment for schizophrenia.

#### Some important ongoing studies are:

- Testing whether computer-simulated, "virtual reality" combat environments can enhance the effectiveness of prolonged exposure therapy.
- Exploring whether prazosin, a commonly prescribed high blood pressure medication, can lessen sleep disturbances and nightmares in PTSD.
- Determining the most effective ways to deliver psychotherapy—in individual or group settings or with telephone or Internet reminders, for example.

#### VA researchers often focus on particularly challenging or less-studied aspects of mental health. Two recent examples are:

- While most patients recover from PTSD, some develop chronic cases that do not respond well to medication or therapy. The VA Cooperative Studies Program is conducting a large, multi-site clinical trial in this population to determine whether the drug risperidone helps to relieve chronic PTSD when added to standard medication.
- VA researchers' recent findings from the largest study to date in women veterans with PTSD indicate that a type of therapy called prolonged exposure therapy is effective for this group. The VA is systematically adopting this treatment approach. *Journal of the American Medical Association*. 2007;297(8):820–830.



## Psychotic Disorders

Psychotic disorders such as schizophrenia affect a small proportion of the general and veteran population but can have devastating effects. Each year, VA provides care to about 100,000 veterans with schizophrenia.

#### Important areas of VA research into schizophrenia include:

- Using state-of-the-art imaging techniques to identify brain structures important in schizophrenia and studying how the structures respond to various medications.
- Determining how veterans with schizophrenia can function at their highest level through improvements in vocational rehabilitation and social cognition training.

## Dementia and Memory Disorders

Dementia is a general term for disorders involving a decline in memory, thinking, judgment, and learning ability. As the veteran population ages, Alzheimer's disease and other forms of dementia are an increasingly pressing concern.

#### VA research related to dementia includes:

- Investigating certain proteins in the blood that appear to predict the onset of Alzheimer's disease and could be the basis of a screening test.
- Studying the dietary supplements DHA (docosahexaenoic acid, a type of fat found in fish, fish oil, and certain nuts) and curcumin (a yellow pigment found in the spice turmeric) for their possible role in the prevention and treatment of Alzheimer's disease.
- Investigating the biological basis of memory to help identify abnormalities in patients with dementia or other memory disorders.



## Visionary Research Examples

### **Innovative team care model—**

A study including about 300 veterans with bipolar disorder at 11 VA Medical Centers found that those receiving care through a new collaborative model utilizing clinical treatment teams and patient-management skills had better outcomes than those in usual care, without added costs.

### **Link between anxiety and alcoholism—**

A VA Research team in Chicago has discovered a genetic and biochemical pathway linking anxiety and alcoholism. Their studies focus on a molecule called CREB, which activates various genes and may point the way to new drug targets for both conditions.

### **Improving mental health outcomes for veterans who are homeless—**

Researchers with VA's Northeast Program Evaluation Center recently documented the effectiveness of a program to help improve housing and mental health outcomes after hospitalization for veterans who have been homeless.

### **Fostering Dynamic Collaborations—**

To advance veterans' health care and further its national impact, VA's Research and Development program collaborates in its mental health research efforts with federal agencies such as the National Institutes of Health and the Department of Defense, private research organizations, and veterans service organizations.



In an advance that leading researchers rank among the most important new findings in Alzheimer's research, a VA laboratory has identified a compound in the brain that disrupts memory and could play a role in improved methods of detection and treatment of Alzheimer's disease.

Science. 2005;309:476-481.

## Substance Use Disorders

Substance use and abuse, with its associated health consequences, is a major public health problem and commonly co-occurs with other mental and physical problems such as depression or chronic pain. Health care costs associated with substance abuse amount to more than \$484 billion per year—more than twice the national cost of caring for cancer.

### **Important areas of VA research into substance use and abuse include:**

- Demonstrating that telephone counseling helps veterans quit smoking.
- Studying interventions, such as antidepressant medication, to simultaneously treat depression and substance abuse.
- Showing that timely treatment by a care professional and/or participation in Alcoholics Anonymous is associated with faster improvement and higher long-term remission in alcohol use disorders than "natural remission" (getting sober without formal treatment or help).



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