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PSYCHIATRIC NEWS

AMERICAN PSYCHIATRIC ASSOCIATION

ISSN 0033-2704

David Hathcox

NIMH Director Thomas Insel, M.D., will resign his post as director of the National Institute of Mental Health effective November 1. APA leaders praised his leadership on such major research projects as the BRAIN initiative, Psychiatric Genomics Consortium, and RAISE (Recovery After an Initial Schizophrenia Episode).

# Insel to Step Down as Director of NIMH

**Insel said a major goal upon assuming the directorship in 2002 was to develop a new discipline in clinical neuroscience by attracting and training a cohort of dedicated M.D.-Ph.D. researcher-clinicians.**

BY MARK MORAN

After serving 13 years as director of the National Institute of Mental Health (NIMH), Thomas Insel, M.D., will step down effective November 1. Insel first worked at NIMH from 1980 to 1994 in the Division of Intramural Research and then returned as director in 2002.

He will be leaving NIMH to join the Google Life Sciences (GLS) team at Alphabet (formerly Google) to lead a new effort that will focus on mental health. During the search for a new director, Bruce Cuthbert, Ph.D., will serve as interim director.

Insel has overseen NIMH during a period of remarkable advances in the understanding of the brain and the genetic and neurobiological underpinnings of mental illness, as well as in clinical research to improve treatment of mental illness. His leadership has helped to advance an appreciation of mental disorders as complex illnesses involving genes, interrelated neurocircuitry, the environment, and behavior. He has also been instrumental in the movement toward early identification of mental illness, recognizing that many of the most serious disorders begin well before they come to clinical attention.

APA leaders hailed Insel, saying the period of his leadership at NIMH has been transformative. "Dr. Insel provided excellent leadership of NIMH during this critical time in mental health research," said APA President Renée Binder, M.D. "During his tenure, NIMH has spearheaded the BRAIN initiative [Brain Research Through Advancing Innovative Neurotechnologies] and other major research efforts. We look forward to assisting the Obama administration as it works to identify the next director."

APA CEO and Medical Director Saul Levin, M.D., M.P.A., congratulated Insel on his service to NIMH and the larger field of psychiatry and mental health. "His new opportunity at Alphabet will increase mental health field advances well into the future, and we at APA look forward to continuing to work with him," Levin said.

In a statement posted on the website of the National Institutes of Health

*see* ***Insel*** *on page 28*

# Court Rules For NYSPA, APA In Suit Against United Healthcare

**The court decision recognized that UnitedHealth Group could be sued even when it acted not as the insurer but as the administrator of a self-insured plan. This means that the carriers are at risk under MHPAEA when they exercise discretion in the administration of benefits.**

BY MARK MORAN

The U.S. Court of Appeals for the Second Circuit ruled in August that a lawsuit against UnitedHealth Group and subsidiaries, including United Behavioral Health, for violation of the federal parity law can go forward, dismissing objections raised on appeal by United.

The court's ruling allows a suit brought by the New York State Psychiatric Association (NYSPA) against United to go forward in the U.S. District Court for the Southern District of New York. The ruling also establishes at least two points that may be important in future claims against insurers.

First, it recognized that NYSPA could represent its members and their patients in pressing a claim under the Mental Health Parity and Addiction Equity Act (MHPAEA) through "associational standing." Both APA and the AMA filed amicus briefs on behalf of NYSPA emphasizing that associations have traditionally been permitted to represent their members' interest in litigation that is consistent

*see* ***United Healthcare*** *on page 28*

PERIODICALS: TIME SENSITIVE MATERIALS

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AMERICAN PSYCHIATRIC ASSOCIATION

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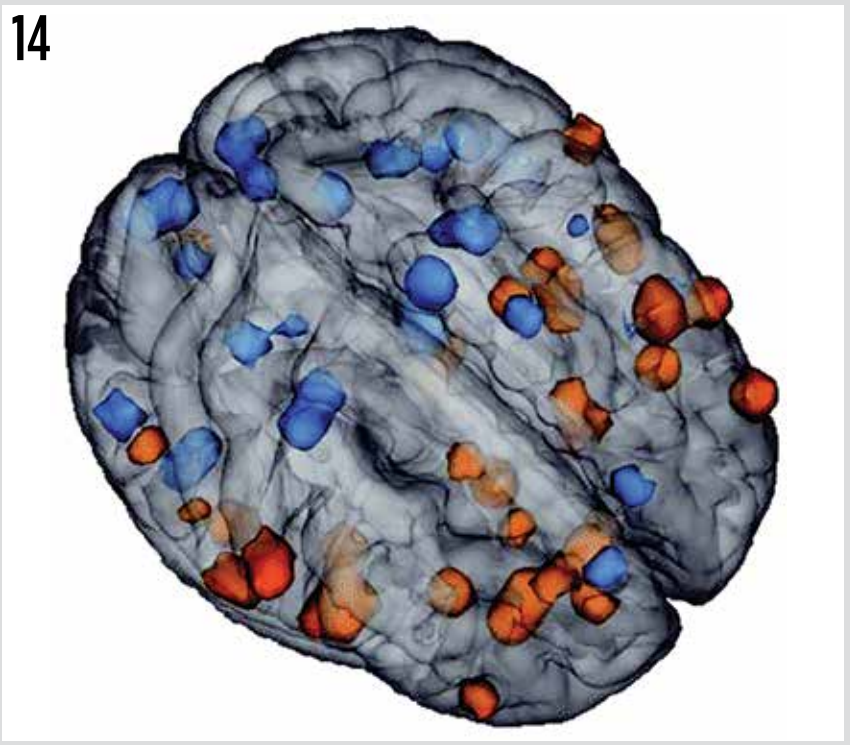





## PROFESSIONAL NEWS



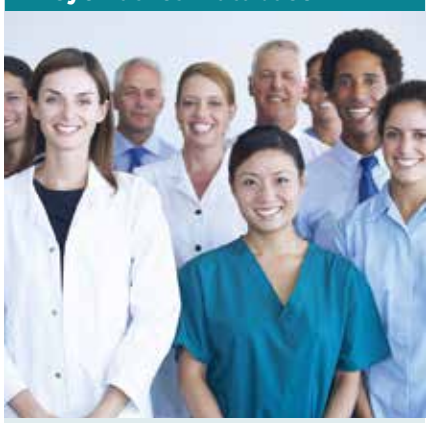
## MEMBERS IN THE NEWS



## CLINICAL & RESEARCH NEWS



### Join APA's New 'Find a Psychiatrist' Database



APA is offering a new member benefit for psychiatrists practicing in the United States and Canada. They are invited to join a new database that will enable individuals seeking psychiatric care to locate psychiatrists practicing in their area. To join the database, go to http://apps.psychiatry.org/optinfap/Login.aspx. To review the functionality of the database, go to http://finder.psychiatry.org.

### Departments

FROM THE PRESIDENT

# Providing Medical Leadership for Mind, Brain and Body Through Advocacy

BY RENÉE BINDER, M.D.

When I worked in the Senate as a Congressional Health Policy fellow, I learned firsthand the importance of lobbying and advocacy. Part of my role was to meet with then U.S. Sen. Joe Lieberman's constituents and various advocacy groups and hear their concerns. They would hand me written documents with data about why their issue was important. I communicated their concerns to the senator and also kept the handouts and their contact information in our files for future reference. As bills were introduced, Sen. Lieberman and his staff would call on these contacts and relevant documents in deciding how to vote.

At our annual meeting this past May, APA unveiled a new logo with this tagline: "Medical leadership for mind, brain and body." These seven words capture what we are trying to accomplish with our patients every day. I believe that in addition to directing treatment teams, medical leadership includes advocating on the state and federal levels on behalf of our members and our patients.

In a previous column, I updated you on APA's advocacy efforts this past year on the national level, from the successful passage of the Clay Hunt Suicide Prevention for American Veterans (SAV) Act to APA's ongoing efforts to work with Congress on mental health legislation. There are bipartisan comprehensive mental health bills in both the House and the Senate now, and APA is supporting both of them. We have made great strides in our national advocacy thanks to APA's government relations team, but there are ways for all of us to get further involved.

In late October APA is hosting a state advocacy conference in Florida, bringing in representatives from all of our district branches (DBs) and state associations (SAs) to collaborate and inform them on how they can best promote our viewpoints in their respective states. The members and DB/SA executives selected to attend this event will be better equipped to advocate our positions on the state level. As many of you are aware, state legislatures have vast powers over the practice of medicine, the transformation of delivery systems, and key programs for low-income and underserved populations. Likewise, state regulators and oversight bodies wield important influence over insurance products, parity enforcement, and other consumer protections.

There is another opportunity for even more members to become active advocates on behalf of APA (see facing page). APA recently launched the Congressional Advocacy Network, or CAN for short. CAN is designed to help develop, train, and energize a national network of psychiatrists who will commit to communicate and build personal relationships with members of Congress. These psychiatrists will also speak to their representatives on behalf of APA on mental health issues. Our goal: recruit 535 psychiatrists to become congressional advocates and pair up with every member of the House and Senate. These congressional advocates will quickly deliver our message to Congress through direct, personal communication whenever issues relating to psychiatry come up.

If you are interested in the CAN initiative, please contact Ashley Mild at amild@psych.org or Adam Lotspike at alotspike@psych.org; both can be reached by phone at (703) 907-7800.

If we as psychiatrists want Congress to help us with reimbursement issues or help our patients truly get insurance coverage that is equal to their coverage for physical ailments, then we need to ensure that they hear us. If we don't speak for ourselves, then Congress will listen to the many other voices that may not represent the best interests of psychiatry or mental health. These advocacy actions are part of medical leadership for mind, brain and body. PN

## Be a Winner and Pay Your Dues Now!

Invoices for APA's 2016 membership dues are now in the mail. If you pay your dues before **November 2**, you will be entered in a drawing for an Apple Watch. The winner will be notified by email and announced in *Psychiatric News*.

To renew today, you can pay online at www.psychiatry.org/paydues; pay by phone at (888) 357-7924; or enroll in the Scheduled Payment Plan at http://psychiatry.org/File%20Library/Join/Dues/Scheduled-Payment-Plan.pdf to pay your dues on the schedule most convenient for you: monthly, quarterly, biannually, or annually.

The deadline to pay 2016 dues is December 31. Why not pay early and take a chance at winning an Apple Watch?

# New APA Advocacy Network to Pair Psychiatrists With Members of Congress

**Federal Advocacy Coordinators, appointed by APA's political action committee, will match psychiatrists in every district branch to form a personal relationship with members of the Senate and the House of Representatives. See end of article for information on how to join.**

BY MARK MORAN

The Congressional Advocacy Network (CAN), a new initiative being launched this month by APA's Division of Government Relations, aims to amplify the voice of psychiatry in Congress through an intensive program linking psychiatrists in every state and Congressional district with a member of Congress.

APA leaders said that CAN is designed to help develop, train, and energize a national network of psychiatrists who will commit to communicate and build personal relationships with members of the Senate and House of Representatives and speak on behalf of APA on issues related to mental health and the profession of psychiatry.

"The Congressional Advocacy Network is an exciting new initiative of APA's Division of Government Relations designed to increase the profession of psychiatry's impact on the U.S. Congress and advance the cause of mental health in America," APA President Renée Binder, M.D., told *Psychiatric News.*

"The network will match a committed psychiatrist with every member of Congress. These designated Congressional Advocates will serve as key contacts when important issues come before Congress, so that psychiatry can quickly deliver its message to Congress through direct, personal communication. The CAN program will also complement the efforts of the district branches and state associations (DBs/SAs) and be used as a resource for both the DBs/SAs and APA when federal issues arise that require a quick response. I urge members to learn more about this extraordinary effort and to seriously consider becoming involved."

Under the new initiative, APA's political action committee, APAPAC, will appoint a psychiatrist from each state to act as Federal Advocacy Coordinators (FACs). These Federal Advocacy Coordinators will in turn secure psychiatrist members in their state to pair with members of Congress in each congressional district and with both U.S. Senators.

Responsibilities of the Congressional Advocates will include representing APA's position to members of Congress by sending emails or making telephone calls when alerted by APA on important legislation and issues impacting psychiatry; developing a constituent relationship with a member of Congress by meeting with him or her in the home district/state at least once every year; and delivering APAPAC contributions to members when requested.

APA's Department of Government Relations will help Congressional Advocates in all stages of this relationship building effort, including identifying priority members of Congress who serve on key congressional committees and congressional leadership. Staff will also ensure all Congressional Advocates are educated in applicable state and federal election laws.

APA's Department of Government Relations will help the FACs in all stages of this relationship-building effort, including identifying priority members of Congress who serve on key congressional committees and congressional leadership. Staff will also ensure that the coordinators are educated in relevant state and federal election laws. PN

Members who are interested in participating in CAN should contact Ashley Mild at amild@psych.org and Adam Lotspike at alotspike@psych.org of APA's Division of Government Relations. More information is posted at http://psychiatry.org/psychiatrists/advocacy/congressional-advocacy-network.

# New Resident PAC Members Will Bring APA's Advocacy Efforts to Trainees

**APAPAC's two new resident-fellow member representatives bring firsthand experience of how political decisions affect training and the broader field of psychiatry and will encourage member support of APA's advocacy agenda.**

BY MARK MORAN

Two new resident members of the APA Political Action Committee (APAPAC)—Sarit Hovav, M.D., and Erica Fasano, M.D.—are determined to make their fellow residents throughout the country aware of the PAC and APA's advocacy agenda.

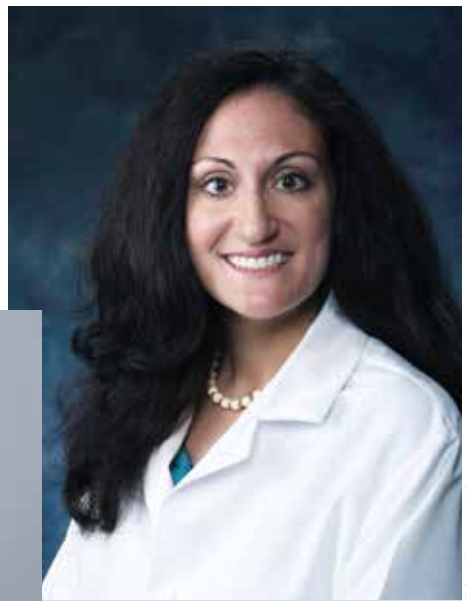
Hovav and Fasano were appointed by APA President Renée Binder, M.D., after they applied for openings on the APAPAC Board of Directors and were unanimously elected by other APAPAC Board members.

"We welcome Drs. Hovav and Fasano to the APAPAC Board and know that their passion and talent will make APA's advocacy effort even more effective," said APA CEO and Medical Director Saul Levin, M.D., M.P.A. "Our resident members are critical to that effort, as the work done by APAPAC impacts the future particularly for the residents and fellows of psychiatry. We encourage them to become involved in the APAPAC."

Hovav is a resident in the University of Nebraska-Creighton University joint program. Already active in APA as one of the resident members of the Assembly from Area 4 and chair of the Assembly Committee of Resident-Fellow Member Representatives, she knows the need for member support of APA's efforts in Congress, the states, and the federal regulatory process.

Sarit Hovav, M.D.

Sarit Hovav, M.D., says every resident in her program can count on hearing from her about APA's political action committee.



Erica Fasano, M.D.

Erica Fasano, M.D., says she has seen firsthand the effect that political advocacy can have on decisions impacting the provision of mental health care.

"There's a real need for more advocacy," she said. "When I heard about the opening on the PAC, I thought, 'This is so exactly me and what I need to do.' As one of the resident members of the PAC, my focus will be on getting other residents involved. I want to start within my own program, and all the residents I know are getting an envelope and letter asking them if they know about the PAC and if they know about APA's advocacy efforts. And I will emphasize that even a relatively small contribution can help our efforts."

She said she would also be reaching out to the rest of the state, as well as other western states. "We are the only residency in the state, so every attending psychiatrist in the state should be donating to the PAC," she said.

Fasano is chief resident of the University of South Alabama Psychiatry Residency Program. "The reason I applied for the PAC resident-fellow member is to use my passion and personal experience to lobby our leaders, rally support from our members, and raise funds for the PAC, so that we can continue to help our legislators understand how their actions impact the mental health treatment of our patients and the future of our profession," she told *Psychiatric News*.

She said she has witnessed up close how political decisions affect access to mental health care. Alabama is one of a number of states that have opted out of expanding the state's Medicaid program—as is allowable under the Afford-

*see* ***Advocacy*** *on page 23*

PROFESSIONAL NEWS

# Resource Document Provides Guidance On Liability in Integrated Care

**A physician-patient relationship must exist for there to be a risk of liability, but a relationship is not necessarily dependent upon the existence of a formal or express agreement. Generally, though, the psychiatrist must take some affirmative step, such as consenting to treat a patient.**

BY MARK MORAN

Integrated care has the potential to upend traditional forms of psychiatric practice—and with them traditional understandings about psychiatrists' risk for liability.

There is not one lone model of integrated care, and the models are evolving. On top of that, a psychiatrist's role in any model can differ depending on a host of factors.

This makes for a complex and evolving landscape for liability in integrated care—but not one that is impossible to navigate. The "Resource Document on Risk Management and Liability Issues in Integrated Care Models" offers guidance on the subject to psychiatrists working in integrated care networks. The document was written by Lori Raney, M.D., chair of the APA Work Group on Integrated Care; D. Anton Bland, M.D., a former member of the work group; and Kristen Lambert, J.D., M.S.W. Lambert is vice president of the Psychiatric and Professional Liability Risk Management Group, AWAC Services Company, a member company of Allied World.

"This resource document provides much-needed guidance for psychiatrists who want to provide informal or 'curbside' consultation for their primary care and other medical colleagues," Raney told *Psychiatric News*. "As new models emerge in which psychiatric expertise is provided behind the scenes to deliver care to more people in need, it is important to be knowledgeable about legal risks, and this document is a trove of valuable information and guidance. There have been concerns voiced by psychiatrists who want to work in collaborative settings with liability around giving advice for patients they have not directly evaluated."

The resource document is not APA policy and was not approved by the Board of Trustees. The document notes that the information in it is "provided as a risk management resource and should not be construed as legal, technical, or clinical advice." The resource document adds, "Whether there is liability, formal practice depends upon specific circumstances surrounding each case, and each state has different laws, regulations, and case law. [C]onsulting an attorney or risk manager for guidance on specific issues is strongly encouraged."

A crucial point underscored by the resource document is that in order for there to be a legal duty, there must first be an existence of a doctor-patient relationship—that is, before a psychiatrist may be found liable for an act of medical malpractice, it is essential that a doctor-patient relationship exist. This relationship may result from a number of situations, and it is not necessarily dependent upon the existence of a formal or express agreement. Generally, however, the psychiatrist must take some affirmative step, such as consenting to treat a patient, for the doctor-patient relationship to be established.

The document outlines the three broad roles that a psychiatrist may play in an integrated care network: supervisory, collaborative, or consultative.

- In a supervisory role—the highest risk for liability—the psychiatrist is responsible for the overall care of the patient, and decisions and actions are under the psychiatrist's direction.

- In a collaborative role—considered the most complex with regard to potential liability—psychiatrists and primary care providers may work along with one another while managing both somatic and mental health concerns.

- A consultative role is regarded as carrying the least risk for liability. In this role, the patient's treatment will be dictated by someone other than the psychiatrist. The psychiatrist offers advice on a "take it or leave it basis" and remains outside the decision-making chain of command.

Lori Raney, M.D.

Lori Raney, M.D., chair of the APA Work Group on Integrated Care, says the resource document provides guidance to psychiatrists concerned about liability associated with giving advice to colleagues about patients they have not directly evaluated.

The resource document offers the following general tips regarding liability in integrated care:

- **A primary care provider is the primary provider in charge of patient care and will write prescriptions and arrange follow-up care.** Any contract signed by a psychiatrist should incorporate language concerning the psychiatrist's role and responsibilities regarding patient care.

- **A psychiatrist's role should be identified with the referring provider.** Psychiatrists should know whether they are providing a true consultation or informal/curbside consultation. Also, they should understand state and federal laws and regulations pertaining to the formation of doctor-patient relationships and providing consultations. (Regula-

*see* ***Liability*** *on page 29*

PSYCHIATRY & INTEGRATED CARE

# Telepsychiatry: Promise, Potential, and Population Health

BY JOHN FORTNEY, PH.D.

*In this month's column, John Fortney, Ph.D., talks about how telepsychiatry can increase access to effective mental health care if applied with careful thought and a population-health perspective in mind.*

*—Jürgen Unützer, M.D., M.P.H.*

Providers all over the globe are increasingly using telemedicine to improve access to high-quality health care. Psychiatry is arguably more suited to telemedicine than most other clinical specialties and in many ways is at the forefront of the telemedicine movement. If applied thoughtfully and with a population-health perspective in mind, telepsychiatry can help address the two primary challenges facing our mental health care delivery system: the inequitable geographic distribution of mental health providers and the overall lack of capacity.

Research has determined that the quality and outcomes of psychotherapy, pharmacotherapy, and consultation delivered via telepsychiatry are equivalent to those of services provided face to face. There are many different models of telepsychiatry that require varying degrees of resource intensity, from telepsychiatry curbside consultation, which is given to primary care providers (low-resource intensity), to telepsychiatry referral, in which an off-site mental health team takes over the care of the patient (high-resource intensity).

From a population-health perspective, it is important to realize that there is a tradeoff between resource intensity and reach into the patient population. In other words, when high levels of clinical resources are devoted to an individual patient, fewer numbers of patients can be treated. Consideration of this tradeoff is important when choosing what telepsychiatry model makes the most sense to implement. Although the telepsychiatry referral model improves geographic access to specialty mental health and can impact which patients are treated, it doesn't address the challenge of capacity. A provider treating a patient via telepsychiatry cannot simultaneously treat

*see* ***Telepsychiatry*** *on page 24*

John Fortney, Ph.D., is a professor in the University of Washington Department of Psychiatry and Behavioral Sciences and director of the Division of Population Health. Jürgen Unützer, M.D., M.P.H., is an internationally recognized psychiatrist and health services researcher. He is a professor and chair of psychiatry and behavioral sciences at the University of Washington School of Medicine, where he directs the Division of Integrated Care and Public Health and the AIMS Center, dedicated to "advancing integrated mental health solutions."

# APA Council Gathers Information On Physician-Assisted End of Life

**Two APA components start to wrestle with the question of whether psychiatrists should be involved in physician-assisted dying.**

BY AARON LEVIN

Call it "death with dignity" or "physician-prescribed suicide" or "physician assistance with dying," but legally permitting physicians to prescribe medications to help terminally ill patients end their lives represents conflicting ideals for the medical profession.

That may be especially true for psychiatrists, who under some proposed legislation might be called upon to determine a patient's competence to request such a mode of death, said New York forensic psychiatrist Steven Kenny Hoge, M.D., chair of APA's Council on Psychiatry and Law.

Ken Hoge

What role psychiatrists should play—if any—in physician-assisted death will be a complex process, says Steven Kenny Hoge, M.D.

Hoge chaired a joint information-gathering meeting along with APA's Committee on Judicial Action on physician-assisted dying, at APA's September component meetings.

When is it permissible for a physician to help a patient die?

The question reached a new watershed in California, where on October 5, Gov. Jerry Brown signed into law The End of Life Option Act, permitting physicians, under certain conditions, to prescribe (but not administer) medications that a patient determined to be terminally ill can take to end his or her life.

California now joins Oregon, Washington state, Montana, and Vermont in allowing terminally ill patients with competence and decisional capacity to request assisted dying.

The legislation was opposed by some medical groups. The American College of Physicians (ACP) wrote to Gov. Brown in September urging him to veto the bill.

"The physician must act in the best interests of the patient as a healer, comforter, and trusted advisor," said the ACP statement. "Physician-assisted suicide undermines trust in physician-patient relationships and trust in the profession of medicine."

APA has no formal policy on the issue now but has received requests for information and support from members.

"District branches and state associations need information about these important issues," said Hoge. "What are the relevant issues for psychiatrists? What should legislation include as safeguards regarding the decision-making capacity of the patient?"

Generally, in cases in which a patient's ability to make decisions is questioned, a judicial process provides a context for the psychiatrist's assessment and serves as society's safeguard for the individual.

"However, in physician-assisted dying, what is the appropriate safeguard to affirm that capacity is present?" said Hoge. "Should one psychiatrist's opinion be enough? Two? A panel? Should there be specific training regarding assessment of capacity?"

The September meeting was aimed at learning more about those issues

*see* ***End of Life*** *on page 16*

ETHICS CORNER

# Reconciling Personal Beliefs With Professional Duty

BY CLAIRE ZILBER, M.D.

"The personal is political" was a common refrain during the women's movement in the 1960s. I suggest that the personal is professional. Although I try to maintain tidy professional boundaries, I find that it is impossible to separate completely these two domains of life. I recently encountered a novel intertwining of the personal and professional, one that involved marijuana.

During the Jewish High Holidays, I reflect on at least one relationship that needs repair and one personal area for improvement. This year, I resolved to be more attentive to ways I can assist others, not at work where helpfulness is my professional orientation, but in the rest of my life.

The holiday season had barely begun when my first opportunity called out to me as I walked my dog past the mouth of an alley. A young man I've seen around the neighborhood in his electric wheelchair, and to whom I've spoken on a few occasions, asked, "Can you help me?"

Although I don't know his medical history, my best guess is that he has either cerebral palsy or a brain injury. He has spasticity and impaired speech, and he is somewhat disinhibited. On this evening, I immediately noticed that his speech was more dysarthric than usual. I walked over to see how I could be of help. In his hand was a bright blue curved metal object, about three inches long, and a film canister with the top ajar. He said something that I couldn't decipher. It took me a few seconds to realize that he was asking me to help fill his pipe, and that the film canister likely contained marijuana.

My resolve to be helpful was in conflict with my professional assessment of the situation and my own instinct for self-protection. While it is possible that marijuana may indeed alleviate the spasticity this young man experiences, it is also possible that it was responsible for the deterioration of his speech. Did I want to abet an activity that may further impair his neurological status? Furthermore, in Colorado, where marijuana is legal for both "medical" and recreational purposes, it remains illegal to consume it in public. If I helped him load his pipe, would I be breaking the law? We were half a block in either direction from two busy intersections. It crossed my mind that a patient or a *Denver Post* reporter might see me engaged in an illegal behavior while enabling someone's substance use, and I didn't want to face the resulting embarrassment. I said, "I'm sorry. I can't help you with that," and walked on.

Just as I struggled between my overall resolution to be helpful and my immediate reluctance to be helpful in the particular way being requested, it is a challenge for me to manage my personal aversion to marijuana and my professional repudiation of the concept of marijuana as medicine while maintaining a nonjudgmental and scientific stance in my office. One positive result of the legalization of marijuana in Colorado is that my patients are much more likely to tell me about their use of pot and other substances. This allows me to engage in education and motivational interviewing and to help them identify the ways in which marijuana may be contributing to their symptoms. If a patient presents with psychosis and is using marijuana, I can confidently discuss the data about chronic marijuana use and the emergence of psychotic illness. Although I cannot definitively assert that marijuana use is responsible for patients' depression, anxiety, insomnia, or other ailments, it is easier now to have an extended conversation on the topic because people are less defensive about something that "everyone" is doing. I sometimes recommend Dr. Kevin Hill's excellent primer for laypeople, *Marijuana: The Unbiased Truth About the World's Most Popular Weed* (Hazelden Publishing, 2015). Over time, most patients do cut back; some even agree to a drug-free experiment to find out how they feel after a month or two of abstinence.

The personal is professional. My New Year's resolution is that the demeanor of helpfulness that I assume in my office will be a more consistent stance in my personal life. In this case, the professional is also personal. I am unwilling to be helpful in a way that conflicts with my professional judgment, even though I was not in my office and this man was not my patient. PN

Claire Zilber, M.D., is chair of the Ethics Committee of the Colorado Psychiatric Society, a former member of the APA Ethics Committee, and a private practitioner in Denver.

APA's *Principles of Medical Ethics With Annotations Applicable Especially to Psychiatry* and *Opinions of the Ethics Committee on the Principles of Medical Ethics* is posted at http://www.psychiatry.org/psychiatrists/practice/ethics.

# MEMBERS IN THE NEWS

## Young Researcher Passionate About Helping Youth Through Innovation

**If a child psychiatry researcher named Paul Croarkin, D.O., could do only one thing to improve child psychiatry, it would be to make rTMS treatment available to youth with treatment-resistant depression.**

BY JOAN AREHART-TREICHEL

Child psychiatry researcher Paul Croarkin, D.O., has set his sights high to make a difference in the lives of children and adolescents with mental illness. And he's well on his way to doing so, say colleagues.

Of the over 200 residents, clinical research fellows, and junior faculty researchers who have been mentored by Mark Frye, M.D., chair of psychiatry at the Mayo Clinic in Rochester, Minn., "Dr. Croarkin is in the top 1 percent. Paul's energy, commitment to the field, and research potential are refreshing. I am confident that his research will impact the field and transform the practice of pediatric mood disorders."

Others apparently agree with that assessment: Croarkin is the winner of the Depression and Bipolar Alliance's 2015 Gerald L. Klerman Young Investigator Award, which was presented at APA's annual meeting in May in Toronto.

Croarkin was born in Columbia, Mo., in 1971. Both his parents played a role in his future career. His mother was a math teacher and his father was a school administrator and, as Croarkin recalled, "a backyard psychologist of sorts. … Just listening to the things he did in the course of his job got me interested in child psychiatry."

During clinical rotations at the Texas College of Osteopathic Medicine, he liked internal medicine, neurology, and emergency medicine, but enjoyed psychiatry the most, he said. "I didn't want to go home at night; it was so much fun. I especially enjoyed developing and honing interview skills. I was also inspired by the amazing discoveries being made in genetics and neuroscience—discoveries that I knew would undoubtedly impact psychiatry. Psychiatry is, in my opinion, the final frontier of medicine. There is so much to do in terms of research."

After he graduated from the Texas College of Osteopathic Medicine in 1998, he pursued a general psychiatry residency at the Naval Medical Center in San Diego from 1999 to 2002. Subsequently, he worked as a staff psychiatrist for the Navy for three years. "Somewhere along the line," he said, "I realized that I wanted to pursue child psychiatry training and an academic career." He entered a training program for child and adolescent psychiatry at the University of Texas Southwestern Medical School in Dallas, finishing there in 2007.

Paul Croarkin, D.O., is investigating pharmacogenomic profiling to improve antidepressant treatment in youth with depression and bipolar disorder.

From 2007 to 2011, Croarkin worked at the University of Texas Southwestern as a clinical child psychiatrist, but it was research in that domain that especially attracted him. So he followed that muse and also obtained a master's degree in clinical research.

In 2011, Frye recruited Croarkin to the Mayo Clinic. Today he is devoting about 75 percent of his professional time to child psychiatry research.

"I find the scientific process a creative, wonderful thing," he said. "It is what gets me up at 4 or 5 in the morning to come to work. And frankly, there is ample room for improvement in what we psychiatrists can offer our patients, particularly our young ones. Thus I'm hoping that, in some small way, I can improve the tools that clinical psychiatrists need to help young patients."

### Seeking Biology of Depression

One of Croarkin's research goals is to better understand the biology of adolescent depression. A pilot study that his group published in the March 2013 *JAMA Psychiatry* suggests that youth with major depressive disorder have excessive N-methyl-D asparate (NMDA)–mediated glutamatergic neurotransmission. Glutamate is the major excitatory neurotransmitter in the brain.

Croarkin and colleagues are now executing a larger study to test this hypothesis and determine whether glutamate

*see* ***Innovation*** *on page 26*

VIEWPOINTS

## Are EHRs Leading Us to Turn Our Backs on Our Patients?

BY SONYA RASMINSKY, M.D., ROBIN BERMAN, M.D., AND VIVIEN BURT, M.D., PH.D.

Like it or not, electronic charting has become a reality of contemporary psychiatry. Since the Health Information Technology of Economic and Clinical Health (HITECH) Act of 2009 mandated that all health care providers billing Medicare adopt and demonstrate "meaningful use" of electronic medical records, psychiatrists have had to grapple with computers in the consulting room.

While psychiatrists in private practice have the option of opting out of Medicare and its rules, those in hospital settings—from residents to supervisors—must incorporate electronic health records (EHR) into their practice. The couch is optional; the computer is not.

The goal of an initial psychiatric encounter is to make a human connection, establish a diagnosis, and generate a treatment plan. The traditional office arrangement of comfortable chairs and couches naturally lends itself to making eye contact, observing body language, and noticing subtleties. A computer divides the psychiatrist's attention, drawing focus away from the patient.

For psychiatrists trained before the era of the EHR, adapting to electronic charting can be a technological challenge. But for a new psychiatrist, there is a risk of paying more attention to the computer template than to the patient. Typing during an encounter with a patient may add to the early trainee's natural defensiveness; rather than resonating with a patient in pain, the resident can look at the screen, check boxes, and believe that she has done her job.

Although a typing psychiatrist may not diminish the quality of the encounter for everyone, asking questions using a template can create an atmosphere in which the patient may not feel comfortable expressing his or her more shameful thoughts and feelings.

And so we are faced with a dilemma. How do we teach residents to attend to the patient when multiple forces—psychological, habitual, legal, and financial—divert them from patient to computer? Documentation takes time, and not typing notes in real time adds hours at the end of the day. For millennials, who took notes on a computer through college and medical school, constant attention to a screen is normative, but educational research suggests that using a computer may lead to less effective information processing.

After training, the realities of back-to-back patients, productivity requirements, and CPT coding set in. The ideal is not always possible, but during training, we should teach residents how to listen. This means encouraging them to follow the patient's affect rather than relying on a checklist. There are several ways to help residents navigate computer use during a session with a patient:

*see* ***Viewpoints*** *on page 17*

Sonya Rasminsky, M.D., is an associate clinical professor of psychiatry at the University of California, Irvine. Robin Berman, M.D., is an associate professor of psychiatry at the David Geffen School of Medicine at the University of California, Los Angeles (UCLA), and author of *Permission to Parent.* Vivien Burt, M.D., Ph.D., is a professor emeritus of psychiatry at UCLA and co-director of the Women's Life Center at the Resnick Neuropsychiatric Hospital at UCLA.

CLINICAL & RESEARCH NEWS

# Childhood Epilepsy Does Not Translate To Increased Psychiatric Burden in Adults

**A community-based population study assessed children with epilepsy 15 years after their diagnosis and identified no increased rates of mood or anxiety disorders.**

BY NICK ZAGORSKI

A new population study finds evidence that there is no association between childhood epilepsy and psychiatric problems in young adults.

Epilepsy has been long been tied to mental health issues on the idea that neurological and psychiatric problems share neural mechanisms in the brain, coupled with the fact that children with epilepsy often feel stigmatized for having seizures.

Also, some research has suggested that children with epilepsy show higher rates of psychiatric disorders compared with control children.

But these previous studies may have had some biases that affected their results, said Anne Berg, Ph.D, a research professor in the Epilepsy Center at the Ann and Robert H. Lurie Children's Hospital of Chicago.

"One of the most cited reports is a study from Iceland, but in that case the researchers also included children with strokes, and strokes are a known risk factor for later depression," she told *Psychiatric News*. "Other studies enrolled children only from specialized care centers, so the participant pool might have been skewed, or they assessed the children shortly after their epilepsy diagnosis."

In a study published September 20 in *Epilepsia*, Berg and colleagues took a broader view, enrolling over 600 children newly diagnosed with epilepsy from across the state of Connecticut between 1993 and 1997. About 15 years later, when most of the participants were adults (average age of 22), all the patients who had neurotypical epilepsy (that is, not caused by an underlying issue like a traumatic brain injury or Down's syndrome) were assessed on their psychiatric state.

The 257 neurotypical patients who participated were compared with two sets of controls: 134 sibling controls or 771 unrelated matched controls taken from a national survey of mental health (the NCS-R).

Whether compared with their siblings or strangers, the adults with epilepsy showed no higher rates of lifetime or current mood disorders, lifetime or current anxiety disorders, suicidal ideation, or suicide attempts. For example, lifetime prevalence of mood disorders was 20.6 percent for epilepsy cases, 23.1 percent for sibling controls, and 23.9 percent for unrelated controls.

"Epilepsy is a tough disorder to live with as a child, but these findings show a positive outlook that once these young people are grown up, their epilepsy does not cause persistent problems," Berg said.

Berg added that parents and practitioners should not let their guard down, however. "A child with epilepsy may still develop a mood or anxiety disorder due to other reasons," she said. "And depending on the severity of seizures, they may have an increased risk of neurocognitive problems down the line."

Another consideration is that epilepsy represents a broad spectrum of disorders, and there may be some subtypes that affect the limbic system (the brain's emotional center), which may indeed alter the risk of mood disorder. Berg believes these specific cases warrant further investigation.

She also noted her study's limitations with regard to the results. "At the time the children were being monitored, Connecticut had a really high penetration of special education services, which these children received," she said. "And that may have helped their psychological well-being to some degree."

Berg's study was funded by a grant from the National Institute of Neurological Disorders and Stroke. PN

An abstract of "Psychiatric Disorders and Suicidal Behavior in Neurotypical Young Adults With Childhood-Onset Epilepsy" is posted at http://onlinelibrary.wiley.com/doi/10.1111/epi.13123/abstract.

FROM THE EXPERTS

# Resilience and Positive Psychiatry in Everyday Practice

BY DILIP JESTE, M.D., AND A'VERRIA MARTIN, PH.D.

During the two-week period from August 29 to September 11, the country commemorated anniversaries of two of the most fateful events in recent history—Hurricanes Katrina and Rita and the 9/11 terrorist attacks. In addition to the terrible loss of lives caused by these events, numerous people have suffered severe psychological damage resulting in posttraumatic stress disorder and other conditions. At the same time, there are many people who bounced back, and some who experienced posttraumatic growth with greater sense of personal strength, more intimate relationships, and recognition of new possibilities for one's life. These are examples of resilience.

Resilience is not a rare ability and is not restricted to major disasters. Different degrees of resilience are present in average individuals. Resilience is broadly defined as the capacity to adapt to challenging situations as well as the ability to endure and bounce back in the face of adverse life events. Resilience is at the core of the emerging positive psychiatry movement which diverges from the traditional deficit models focused on psychopathology and moves toward strength-based models focused on mental health. This shift will encourage clinical care that fosters positive states of mental health and supports recovery.

Empirical investigations have shown resilience to be associated with improved health, social engagement, positive outlook, and greater life satisfaction in the face of complex stresses. Higher levels of resilience are associated with a reduction in the severity of PTSD and depressive symptoms in clinical and nonclinical populations. Other research has demonstrated the molecular biology and epigenetics of resilience, while also suggesting behavioral and biological means of enhancing resilience.

There are inspiring examples of extraordinary resilience by people with severe mental illnesses—for example, John Nash and Elyn Saks, who made incredible contributions to society despite chronic schizophrenia. William Carlos Williams, a physician who battled recurrent major depression from adolescence onward and subsequently had heart disease and strokes, wrote Pulitzer Prize–winning epic poetry in his later life.

Resilience can be found in individuals with mental illness seen in everyday practice. There are multiple and often unexpected pathways toward resilience. First and foremost, the clinician should assess every patient's strengths and resources to develop a personalized plan for enhancing her or his resilience trajectory. In clinical practice, strength-based interviewing is useful for uncovering resources and positive influences that have assisted the individual in successfully overcoming stressful events in the past. The clinician can then develop an individualized plan for enhancing resilience that includes positive attitude, cognitive flexibility, social support, and active coping skills.

Take the case of 45-year-old Jessica, who was seen in our clinical program for major depression precipitated by a difficult divorce. While an antidepressant helped reduce her depressive symptoms, she continued to feel "so alone, and not knowing who I am anymore." In the first few sessions, the clinician-therapist used focused questioning to develop a strength-based narrative with the patient. The object was to identify major stressors in the past, what coping mechanisms she used with varying degrees of success, how the current event provided an opportunity for further growth, and how she could still recruit family and community resources to support her healing.

Jessica told the therapist that the most severe loss in her earlier life was that of her father to cancer when she was in her 20s. As she recounted this experience, the therapist noted and then spotlighted her ability to recover from this past adversity through the development of social support networks that enhanced healing, her volunteerism with the American Cancer Society, and

*continued on facing page*

Dilip Jeste, M.D., is senior associate dean for healthy aging and senior care and the Estelle and Edgar Levi Chair in Aging at the University of California, San Diego, where A'verria Martin, Ph.D., is director of the research division of geriatric psychiatry. They are the coeditors of *Positive Psychiatry: A Clinical Handbook* from American Psychiatric Association Publishing. APA members may purchase the book at a discount at http://www.appi.org/Course/Book/Subscription/JournalSubscription/id-3380/Positive_Psychiatry.

# LAI Antipsychotics Offer Advantages But Questions Remain About Optimal Use

**Randomized, controlled trials of long-acting injectable antipsychotics have had variable results. But one expert who spoke with *Psychiatric News* said he believes what is needed are studies that better mimic real-world clinical situations, where compliance with medication is a ubiquitous barrier to recovery.**

BY MARK MORAN

Are long-acting injectable antipsychotics a "game changer" in the treatment of schizophrenia, preventing relapse by ensuring better adherence to medication?

One recent randomized, controlled trial appearing in the August issue of *JAMA Psychiatry* suggests they could be. In that study, long-acting injectable (LAI) risperidone demonstrated better control of symptoms and—importantly—significant superiority compared with oral risperidone with regard to psychotic exacerbation and/or relapse in a cohort of first-episode schizophrenia patients. (In the same edition of *JAMA Psychiatry*, a second study showed that a three-month formulation of paliperidone palmitate administered repeatedly over the course of a year significantly delayed time to relapse in patients with schizophrenia compared with placebo; the three-month formulation was also found to be safe and well tolerated.)

In the risperidone trial, Kenneth Subotnik, Ph.D., and colleagues at the University of California, Los Angeles, randomly assigned 86 patients with recent onset schizophrenia to receive long-acting injectable risperidone or oral risperidone for 12 months. Of the 86 patients randomized, three refused treatment in the long-acting injectable risperidone group.

The psychotic exacerbation and/or relapse rate was 5 percent for the long-acting risperidone group compared with 33 percent for the oral group. And the long-acting injectable risperidone showed better control of hallucinations and delusions throughout follow-up at one year.

Subotnik and colleagues noted that the use of long-acting injectable risperidone also led to better maintenance of intracortical myelination as well as improved cognitive functioning. "If this trifecta of improved psychotic symptom control, cognition, and intracortical myelination can be replicated in longer longitudinal studies of patients with a first episode of schizophrenia, it would suggest that the use of long-acting injectable antipsychotics early in schizophrenia can modify the trajectory of the disorder and lead to better long-term outcomes," they wrote. "This possibility would be a 'game changer' for the field."

## Key Points

A recent randomized, controlled trial comparing long-acting injectable (LAI) risperidone with oral risperidone demonstrated significant superiority in preventing relapse, but meta-analyses of such trials have shown variable results.

- LAI antipsychotics have not yet been widely adopted for a variety of reasons: psychiatrists' misperception that they are for patients who are violent or have very severe mental illness, inconclusive results from RCTs, and a lack of knowledge about benefits on the part of providers and patients.
- Studies mirroring real-world clinical conditions may better reveal the effectiveness of LAIs.
- Adoption of LAIs may be driven by the focus on value in health care and the need to reduce re-hospitalization.
- A host of clinical questions remain about LAIs including dosage, choice of drug, interval time between injections, and selection of patients.
- Prolonged intervals with an LAI drug should not reduce essential clinician-patient contact and communication.

**Bottom Line: Long-acting injectable antipsychotics may hold promise for their effectiveness in reducing relapse and rehospitalization, but important clinical questions about their optimal use remain.**

John Kane, M.D.

John Kane, M.D., believes the increased attention to value in health care could drive adoption of LAI antipsychotics for their benefits in reducing hospitalization.

Yet findings from randomized, controlled trials (RCTs) of LAIs have not been uniform, with a number of studies with chronic patients demonstrating no superiority over oral medications. For this reason—and several others—it appears that LAI antipsychotics have yet to achieve "game changer" status.

"Grossly underutilized" is how psychiatrist John Kane, M.D., characterized LAIs in clinical practice. He is senior vice president for behavioral health services in the North Shore–Long Island Jewish Health System and chair of psychiatry at the Zucker Hillside Hospital.

"There are several advantages to LAIs, not the least of which is knowing when patients are taking their medications. When using oral medications, physicians very often overestimate their patients' compliance—and the patients may do so too, either because they don't remember to take the pills or can't remember if they have.

"The other advantage to LAIs is that physicians have better control over the dosage—you know when you give the injection the exact amount of medication the patient is receiving, and there are fewer problems with bioavailability than with oral meds," Kane told *Psychiatric News*.

Kane believes that the mixed results stemming from RCTs of LAIs may be an artifact of the methodology of RCTs—patients who enter such trials are likely to have fewer problems with adherence, and RCTs typically involve much more monitoring. In these ways, RCTs may mask the superiority of LAIs in ensuring compliance.

More illustrative, he said, are naturalistic studies looking at large cohorts of patients that more closely resemble real-world clinical practice—where compliance is a ubiquitous barrier to recovery.

"Mirror image" studies, in which a period of oral medication use is followed by a period of LAI use, are likely to better represent those real-world conditions. A 2013 meta-analysis of 25 mirror image studies involving 5,940 patients worldwide followed for at least 12 months (six months on oral medications and six months using LAIs) found that LAIs performed significantly better in terms of preventing and decreasing the amount of hospitalization. (That study, of which Kane is a coauthor, appeared in the *Journal of Clinical Psychiatry* in October 2013.)

But Kane said there are other reasons for therapeutic neglect of LAIs. Injections may not be a routine part of some clinical practices, and there may be a perception—on the part of both clinicians and patients—that LAIs should be reserved for more severely ill patients or those who are aggressive or violent.

"I think the bigger obstacle is that physicians are not consistent in the way they approach patients," Kane said. "When they are asked, a patient may at first say 'no.' Many clinicians will give up at that point. This is why psychoeducation is important—you need to have a series of conversations with patients so they have enough information about the benefits and risks."

Finally, Kane said that he believes the focus on value in health care may help to drive adoption of LAIs. "There is going to be an increasing focus on reducing rates of rehospitalization, one of the biggest drivers of cost, and so LAIs may become more attractive," he said.

In an editorial that accompanied the Subotnik report in *JAMA Psychiatry*, William Carpenter, M.D., and Robert Buchanan, M.D., of the Maryland Psychiatric Research Center, echoed the barriers to LAI adoption outlined by Kane, but also stated that research is still needed to clarify a host of clinical issues around their use—dosage, interval between

*see **LAI** on page 21*

*continued from facing page*

nurturing her own personal health through yoga classes. With this knowledge of the patient's personalized resilience pathway, clinical intervention was directed toward redeveloping these coping strategies and continuing to develop a strength-based narrative surrounding this specific event. This shift, from deficit to strength, provided the opportunity to cultivate positive mental health and personalized resilience pathways.

The emerging models of overall health care emphasize well-being and personalized medicine. Positive psychiatry, exemplified by individualized resilience-enhancing strategies, will enable psychiatry to move to the front and center of health care. PN

CLINICAL & RESEARCH NEWS

# Brain Connectivity Patterns Might Predict Antipsychotic Response

**Using data obtained from fMRI scans, researchers were able to predict how well patients with acute psychosis would respond to antipsychotic medications with an accuracy of 78 percent.**

BY NICK ZAGORSKI

Finding the most effective antipsychotic for a patient is often a process of trial and error, but research published August 28 in *AJP in Advance* may have identified a method to identify potential responders before giving them treatment.

The technique involves examining the neural connectivity to and from a region of the brain known as the striatum—an area rich in dopamine receptors that are the targets of antipsychotic medications.

Although previous studies have

# CLINICAL & RESEARCH NEWS

explored the possibility that physical changes in the brain (e.g. the thickness or volume of certain brain regions) may be able to predict disease onset or the best treatment strategy, most findings suggest that "there is no single lesion that associates with a psychiatric illness," said Alex Fornito, Ph.D., deputy director of the Brain and Mental Health Laboratory at Australia's Monash University.

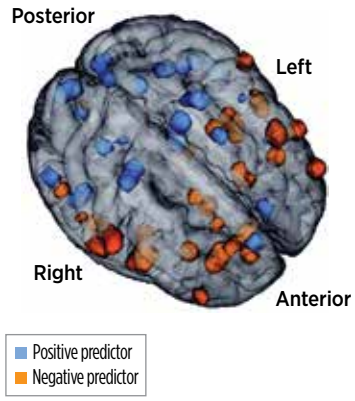
"Pathophysiological changes are subtle and they are distributed throughout the brain," he told *Psychiatric News*. "It thus seems natural to conclude that many such illnesses arise from disturbances in the way that different brain regions communicate with each other."

Deepak Sarpal, M.D., and colleagues at the Feinstein Institute for Medical Research in New York were interested in how brain connectivity patterns might predict treatment response to antipsychotic medications. They used functional MRI (fMRI) to create striatal connectivity maps in a group of 41 first-episode schizophrenia patients. Functional connectivity data were obtained prior to the patients' participation in a clinical study of risperidone or aripiprazole, and when the study concluded Sarpal's team compared the connection profiles of responders with nonresponders.



**Connecting the Dots to Find Antipsychotic Responders**

Deepak Sarpal, M.D., and his colleagues identified 91 distinct nodes that connect to the brain's striatum and are predictive of antipsychotic response. A good response is indicated by strong connections (blue) in posterior brain regions and weak (red) connections in anterior regions.




Source: Deepak Sarpal, M.D., et al., *AJP in Advance*, August 28, 2015

They identified 91 nodes—located throughout the brain—that were functionally connected to the striatum and associated with treatment response. They combined the strength of these connections to develop an overall "connectivity index," which revealed that antipsychotic drug responders had less striatal connectivity while nonresponders tended to have greater connectivity.

"These results suggest that deficits in the connections between the striatum and other brain regions implicated in psychosis may be the target of antipsychotic medications," said Sarpal. "By contrast, nonresponders might have an alternate mechanism behind their psychosis that is resistant to the primary functional effects of standard antipsychotics."

To test how predictive the striatal connectivity index could be, Sarpal and colleagues performed fMRI scans on a group of 40 newly hospitalized patients with acute psychosis. The researchers found that the index could predict a positive response to antipsychotics (in this case measured as at least a 20 percent reduction in symptoms within two weeks) with about 78 percent accuracy.

As a secondary measure, the team also found that the strength of striatal connections correlated with the average hospital stay of these patients.

"This is the first study to validate a predictive fMRI measurement in an independent study group of patients

*see* ***Response*** *on page 29*

# PET Reveals Inflammatory Response In Schizophrenia, High-Risk Patients

**The researchers found no relationship with depressive symptoms, suggesting that the elevated microglial activity is specific to the development of psychotic-like symptoms, rather than psychiatric symptoms in general.**

BY MARK MORAN

Microglial activity—indicative of an immune response to neuroinflammation—appears to be elevated in schizophrenia and in subjects with subclinical symptoms who are at ultra-high risk of psychosis, according to a landmark study published online October 16 in the *American Journal of Psychiatry*. Moreover, the elevated microglial activity appears to be related to symptom severity.

"This study is the first to use PET methods to image the microglial cells in the living human brain," *AJP* Editor Robert Freedman, M.D., told *Psychiatric News*. "How they became activated and what they are doing is unknown, but the presumption from their presence in the brain is that they may be attacking the nerve cells themselves."

*AJP* Editor Robert Freedman, M.D., says both the findings and the method used in the study of microglial activation may prove to be transformative.

Researchers from several institutions in England and Italy forming the Psychiatric Imaging Group used positron emission tomography (PET) to measure in vivo microglial activity in patients with schizophrenia, high-risk individuals with pre-clinical symptoms, and healthy controls. (Microglial cells are the immune cells of the brain and are similar to immune-responsive macrophages in the blood; their presence in large numbers indicates inflammation.) The PET method employed a radioactive tracer specific for a protein (known as 18kD translocator-protein, or TSPO) that is indicative of microglial activity.

A total of 56 participants completed the study, including 14 people who met ultra-high-risk criteria, as assessed on the comprehensive assessment of the at-risk mental state (CAARMS), and 14 age-matched controls; an additional 14 people with schizophrenia and 14 age-matched healthy controls also participated in the trial.

The main outcome measure for the study was evidence of TSPO binding in total gray matter.

The researchers found that the protein-binding ratio in gray matter was elevated in ultra-high risk subjects compared with matched controls and was positively correlated with symptom severity. Patients with schizophrenia also demonstrated elevated microglial activity with respect to matched controls.

Importantly, the researchers found no relationship between depressive symptom severity and the protein binding ratio in gray matter in patients with schizophrenia or ultra-high-risk participants, suggesting that the elevated microglial activity is specific to the development of psychotic-like symptoms, rather than psychiatric symptoms in general.

Also of note, at the time the paper was written, one of the participants who was ultra-high risk of psychosis transitioned to first-episode psychosis, and this participant had the highest total gray matter protein binding in the cohort.

"These findings are consistent with increasing evidence that there is a neuroinflammatory component in the development of psychotic disorders, raising the possibility that it plays a role in its pathogenesis," the authors stated. "Anti-inflammatory treatment may be effective in preventing the onset of the disorder, [but] further studies are required to determine the clinical significance of elevated microglial activity."

According to Freedman, both the findings from the study and the application of the PET method to image pathophysiological processes in the brain may prove transformative.

"The study found microglial cells elevated in young adults who have symptoms associated with the increased risk for schizophrenia, as well as in patients who already have schizophrenia. This paper thus may provide the first demonstration of an inflammatory process that is part of the transition into schizophrenia," he said.

"The PET method now gives clinical researchers an invaluable tool, not before available, to monitor this transition and to search for what might be causing the inflammation," he continued. "If anti-inflammatory interventions are attempted, then this method can assess whether the intervention has its intended effect."

Freedman said a similar PET technique revolutionized the early detection of beta-amyloid early in the development of Alzheimer's disease, and the technique holds the promise of similar early detection of pathophysiological processes associated with schizophrenia. PN

"Microglial Activity in People at Ultra High Risk of Psychosis and in Schizophrenia: An [11C]PBR28 PET Brain Imaging Study" can be accessed at ajp.psychiatryonline.org.

## End of Life

*continued from page 7*

from several experts.

Most research on physician-assisted dying has taken place in Oregon, where the practice has been legal for two decades, Dan Larriviere, M.D., J.D., vice chair of neurology at the Ochsner Neuroscience Institute in New Orleans, told the attendees. The American Academy of Neurology has stated that the practice may be legal but was nevertheless unethical.

Larriviere noted that conflicting principles were involved: patient autonomy versus nonmaleficence, the physician's role in safeguarding life versus the need to relieve suffering. Since 1997, 1,050 patients in Oregon have been prescribed lethal drugs, and 673 have used them to die.

The Oregon patients' median age was 69 years, he said. "They were well educated, were in hospice, and had insurance. Cancer and ALS were the most common diagnoses. Hopelessness was common but not major depression."

Avoiding pain proved a lesser issue at the time of request, said Linda Ganzini, M.D., M.P.H., a professor of psychiatry and medicine at Oregon Health and Science University in Portland, who studied 58 requesting patients. They were mostly nonreligious, white and well educated, and did not have depression, untreated symptoms, or socioeconomic disadvantage. They were not a "burden" on their families, one of the common arguments made in favor of physician-assisted dying.

"But they worried about future pain and how pain would undermine their sense of control and autonomy," said Ganzini. "It's not current but future symptoms or quality of life that concerns them."

The individual's mental state is another potential cause for concern.

"In some jurisdictions [like Oregon], treating physicians are not required to refer their patients for a competence assessment," noted Hoge. Only a minority of requesting patients in Oregon receive a psychiatric evaluation, for example. "Should they be required to have an independent evaluation by a psychiatrist?"

No state now requires a psychiatrist to render judgment on a patient's capacity to decide about requesting physician-assisted dying. However, without a capacity-compromising diagnosis present, "there is no clinical reason to question capacity," said Robert Roca, M.D., M.P.H., of Baltimore's Sheppard Pratt Health System.

More ambivalent cases call for evaluating the consequences of the choice and raising the standard for determining capacity, said Roca. "These are complex assessments and judgments, requiring knowledge and experience in psychiatry."

This is especially the case for people who are not "terminally ill" in the conventional sense but may have serious psychiatric conditions, like personality disorders or depression.

"Patients with depression should be identified and treated prior to making a decision about physician-assisted dying," said Hoge. "The issue of depression overlaps to some degree with competence, but many depressed patients would be assessed as having capacity under usual standards."

Whether or not organized psychiatry should support legislation authorizing physician-assisted dying, even if ideally crafted, is a key question, said Hoge. "If psychiatrists take on this role, do they not then become the gatekeepers to death? Is this the correct role for us?"

APA will not immediately develop a position statement for or against physician-assisted dying, said APA President Renée Binder, M.D., at the meeting. "However, we should continue to gather and present evidence to our members." PN

The American College of Physicians letter to California Gov. Jerry Brown is posted at: https://www.acponline.org/newsroom/brown.htm?hp.

# Family-Based Intervention May Help Prevent Anxiety Disorders in Children

**Children of anxious parents are at an increased risk of developing an anxiety disorder, but a new study suggests that a measure of prevention may be possible.**

BY AARON LEVIN

A cognitive-behavioral intervention aimed at families in which at least one parent had an anxiety disorder reduced the likelihood that children developed anxiety disorders, according to a study published September 24 in *AJP in Advance*.

Previous studies showed that the children of anxious parents are at a greater risk of developing an anxiety disorder, and parenting practices, such as overcontrol and overprotection, contributed to elevated anxiety. While anxiety prevention programs carried out in schools have been only modestly successful at reducing childhood and adolescent anxiety, less is known of the effects family-based interventions might have on the high-risk offspring of anxious parents.

"Prevention is always better than providing intervention after a disorder has been identified," child psychiatrist Paramjit Joshi, M.D., division chief of psychiatry and behavioral medicine at Children's National Medical Center in Washington, D.C., told *Psychiatric News*. "In that sense I think this is an important study and has clinical applicability."

For the *AJP in Advance* study, Golda Ginsburg, Ph.D., a professor of psychiatry at the University of Connecticut Health Center, and colleagues randomly assigned 136 families to either the eight-week Coping and Promoting Strength program or a control condition using an informational pamphlet. All participating families had at least one parent who met *DSM-IV-TR* criteria for an anxiety disorder and at least one child aged 6 to 13 without an anxiety disorder.

As part of the intervention program, each family met individually with a trained therapist for 60 minutes a week for eight weeks. The first two sessions were for parents only, after which the children were included. As part of the program, parents learned about how to reduce modeling of anxiety, overprotection, and overall distress. The children were counseled to reduce risk factors like anxiety symptoms, social avoidance or withdrawal, or maladaptive thoughts. Families were shown how to identify signs of anxiety and strategies to cope with and reduce anxiety.

Participants in the information-monitoring group received a 36-page pamphlet containing information about anxiety disorders and associated treatments. Anxiety was assessed before the trial began, at the end of the intervention (or eight weeks after randomization), and at follow-ups six and 12 months later.

After finishing the program, children in the intervention group had lower symptom scores on average. Just three children (5 percent) in the intervention group met criteria for an anxiety disorder by the end of the 12-month follow-up compared with 19 children (31 percent) in the information-monitoring group. At the one-year follow-up, youth in the control group also had higher anxiety symptom ratings than those in the intervention group.

"[A]mong youth who received the intervention, those with high baseline anxiety symptom severity levels showed greater reductions in severity than those with low baseline levels, which suggests that the intervention is particularly helpful for youth with elevated anxiety symptoms," the study authors wrote.

"One interpretation could be that targeting only those with elevated symptoms would be more efficient," said Ginsburg in an interview. "However, we did not look at all moderators, and my next step is to look at what other factors predicted who went on to developing an anxiety disorder in order to also 'personalize' who might be at most risk and benefit most from prevention."

About 13 percent of the intervention cohort and 22 percent of the control families reported that their children received mental health services for anxiety during the study period, but the difference was not statistically significant.

University of Connecticut

The next step in the research is to examine the factors that predicted which children went on to develop an anxiety order and identify those who might be at greatest risk, says Golda Ginsburg, M.D.

That narrow gap may have been either because the intervention's effect had no effect on treatment-seeking or because anxious young people typically seek care at low rates, the authors noted.

Reductions in the parents' modeling of anxiety and their global distress at the trial's end and at the six-month follow-up point mediated the intervention's effect on the severity of children's anxiety symptoms after one year, the authors said. "This finding clarifies potential mechanisms of the intervention's impact and suggests that targeting specific parenting behaviors (such as reducing anxious modeling) and lowering parents' overall distress levels (not anxiety specifically) were critical in reducing child anxiety symptoms."

While the study authors noted that the work needs to be replicated in a larger and more demographically diverse cohort, it may represent a step forward in efforts to reduce the number of children and adolescents with anxiety disorders.

"I think the important aspect of this study is that if we can provide an intervention for kids at risk for developing anxiety disorders given a family history of anxiety in a parent, then this speaks to the whole notion of early identification of at-risk children and preventative intervention," said Joshi.

The researchers recently received funding from the National Institute of Mental Health to follow this cohort of children for another seven years, said Ginsburg. "So we will also look at what holds up over time." PN

"Preventing Onset of Anxiety Disorders in Offspring of Anxious Parents: A Randomized Controlled Trial of a Family-Based Intervention" is posted at http://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2015.14091178.

## Viewpoints

*continued from page 8*

- Ensure that the room layout allows for the computer to be placed in a way that facilitates a face-to-face conversation between the psychiatrist and patient.

- When framing the interview, acknowledge the unfortunate reality of needing to type; for example, "I'm sorry that I have to type during this interview, but I'll do my best not to let it get in the way."

- Make time for open-ended questions; for example, "Help me understand what depression is like for you."

- When seeing a patient with a supervisor, use the time to hone psychiatric skills by observing an experienced clinician rather than finishing notes.

- For training purposes, conduct some interviews without the computer. This enables residents to appreciate the value of face-to-face contact with their patients.

- Residency programs should offer structured teaching about how to effectively connect with patients in the era of electronic medical records.

Electronic medical records make it possible for relevant data to be incorporated into written reports, but they sometimes do so at the expense of the human connection. Without a strong alliance, we compromise the relationship and the information—which can be elicited only in an atmosphere of trust. Notes typed during a psychiatric interview will be completed on time, but they may be incomplete or inaccurate.

Turning our backs on our patients is never acceptable. Our job is to listen, to observe, and to notice what others do not. Most importantly, our job is to create a safe and welcoming space in which patients can express their most private thoughts and feelings. Ultimately, only a face-to-face relationship will lead us to comprehensive and meaningful assessment. PN

This article was adapted from "Are We Turning Our Backs on Our Patients? Training Psychiatrists in the Era of the Electronic Health Record," which is posted at http://ajp.psychiatryonline.org/doi/full/10.1176/appi.ajp.2015.15030333.

# CLINICAL & RESEARCH NEWS

## Meta-Analysis Finds Association Between Obesity and ADHD in Adults, Children

**Some researchers believe that assessing the risk for obesity should be part of the evaluation and management of people with ADHD.**

BY VABREN WATTS

Adults and children with attention-deficit/hyperactivity disorder (ADHD) are significantly more likely than those without the condition to be obese, according to a meta-analysis of studies appearing August 28 in *AJP in Advance*.

"Obesity is a serious public health problem," affecting 17 percent of children and 35 percent of adults in the United States," said the study's senior author, Stephen Faraone, Ph.D., a distinguished professor in the departments of Psychiatry and Neuroscience and Physiology at SUNY Upstate Medical University, in an interview with *Psychiatric News*. "Attention-deficit/hyperactivity disorder [ADHD] is another frequent and impairing condition," affecting 5 percent of school-age children. These children have a 65 percent chance of ADHD symptoms following them into adulthood.

According to Faraone and colleagues, independent studies evaluating whether an association between obesity and ADHD exists have drawn conflicting conclusions. If a significant association is found between ADHD and obesity, the researchers noted, individuals affected by both would represent a sizable portion of the general population in need of care—which is highly relevant from a clinical and public health standpoint.

SUNY Upstate Medical University

Stephen Faraone, M.D., believes that there is a need for more researchers and clinician scientists to further investigate why ADHD is a risk factor for obesity.

To examine the relationship between obesity and ADHD, the international team of researchers searched through a broad range of databases and unpublished material to identify population-based studies and clinical studies consisting of individuals with ADHD who were then compared with non-ADHD controls.

Of the 42 studies (which included 728,136 people) selected for inclusion, the researchers found that obesity was significantly associated with an ADHD diagnosis in both adults and children. The estimated prevalence of obesity was increased by about 70 percent in adults with ADHD compared with adults without ADHD and by about 40 percent in children with ADHD compared with children without ADHD. The researchers also noted that ADHD individuals taking medication for the disorder were not at any additional risk for obesity than those with untreated ADHD.

Though reasons for the link between ADHD and obesity are unknown, Faraone speculates that it may be due to ADHD symptoms such as impulsivity that could lead to impulsive eating and poor self-regulation of eating behaviors, "so the effect could be behavioral," he explained. "It is also possible that ADHD and obesity share underlying causes; for example, genes or environmental risk factors might cause both disorders."

Whatever the underlying causes for the association between the two disorders may be, Faraone told *Psychiatric News* that realizing that ADHD may serve as a potential risk factor for obesity, "health care professionals may be able to alert parents to this concern, monitor the patient, and perhaps intervene early to prevent obesity by modifying lifestyle factors."

The researchers noted that "assessing the risk for obesity should be part of the assessment and management of ADHD." They concluded that clinicians should also screen for ADHD in individuals who are referred for obesity, especially those with a previous history of unsuccessful weight-loss attempts.

The study was funded by Aargon Healthcare Italy. PN

An abstract of "Association Between ADHD and Obesity: A Systematic Review and Meta-Analysis" is posted at http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2015.15020266.

# JOURNAL DIGEST

BY VABREN WATTS

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### Study Reveals Differences Between Girls, Boys With Autism

The brains of girls with autism spectrum disorder (ASD) appear to differ from boys with ASD, according to a study published in *Molecular Autism*. The study also revealed behavioral differences between the two groups.

Researchers conducted two separate analyses, with data extrapolated from the National Database for Autism Research and Autism Brain Imaging Data Exchange.

In the first analysis, the severity of ASD symptoms was examined in nearly 128 girls with ASD and 614 boys with the disorder. Compared with the boys, girls with ASD showed less severe repetitive/restricted behaviors and comparable deficits in social and communications domains on the Autism Diagnostic Interview, Revised (ADI-R).

The researchers then examined symptom severity and structural imaging data obtained from 25 girls with ASD, 25 boys with ASD, and 19 girls and 19 boys without ASD. The researchers found that gray matter (GM) in the cortex, supplementary motor area (SMA), cerebellum, fusiform gyrus, and amygdala accurately discriminated girls and boys with ASD. They also found that the GM morphometry in the motor cortex, SMA, and cerebellum was correlated with scores on the repetitive/restricted behaviors domain of the ADI-R.

"Our findings not only provide evidence for distinct behavioral phenotypes in girls with ASD, compared with boys, but also link behavioral differences to brain structure. Importantly, the severity of repetitive/restricted behaviors is lower in girls with ASD and is associated with sex differences in GM morphometry in cortical and cerebellar regions involved in motor control," the researchers wrote.

Supekar K and Menon V. Sex Differences in Structural Organization of Motor Systems and Their Dissociable Links With Repetitive/Restricted Behaviors in Children With Autism. *Mol Autism*. 2015 Sep 4;6:50. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4559968/

Pi-Lens/Shutterstock

### Smoke-Free Laws, Cigarette Taxes Deter Youth From Smoking

Smoke-free zone laws and higher taxes on cigarettes appear to deter young adults from smoking, according to a recent report in *JAMA Pediatrics*.

Researchers from the University of California, San Francisco, tracked the smoking habits of youth aged 12 to 18 who participated in the 1997 Bureau of Labor Statistics National Longitudinal Survey of Youth for 11 years.

The researchers found that youth living in places with laws for 100 percent smoke-free workplaces were 34 percent less likely to initiate smoking than youth living in places without such bans. Youth living in areas with 100 percent smoke-free bar laws were 20 percent less likely to be smokers and those who were smokers, spent fewer days smoking.

The researchers also found that tax hikes on cigarettes deterred youth from smoking, with each 10-cent tax hike associated with a 3 percent drop in the odds of starting to smoke.

The researchers noted that the current findings suggest that not only do smoking laws "protect bystanders from secondhand smoke, but also contribute to less smoking among adolescents and young adults."

Song A, Dutra L, Neilands T, et al. Association of Smoke-Free Laws With Lower

# Determining Minimum Current for ECT May Help Reduce Side Effects

**Studies of nonhuman primates reveal that less intense electric fields than conventional ECT can induce seizures.**

BY AARON LEVIN

Electroconvulsive therapy (ECT) is one of the oldest, most dependable methods of treating depression, clinicians are continually looking for new ways to make it more effective, with fewer adverse consequences for patients.

In recent years, for instance, unilateral electrode placement and the use of briefer stimulus pulses have advanced that goal.

"If we can make seizures more focal, it might reduce side effects," said William McDonald, M.D., a professor of psychiatry and behavioral sciences and Chief of the Division of Geriatric Psychiatry at Emory University, in an interview with *Psychiatric News*.

A study in the August issue of the journal *Neuropsychopharmacology* describes one way researchers are attempting to minimize the current used in ECT and magnetic seizure therapy (MST).

In a study led by Angel Peterchev, Ph.D., an assistant professor of psychiatry and behavioral sciences and of electrical and computer engineering, and director of the Brain Stimulation Engineering Lab at Duke, researchers examined several methods for determining the minimum current amplitude required to induce a seizure with ECT and MST in nonhuman primates.

Jared Lazarus

Angel Peterchev, Ph.D., says alterations in electroconvulsive therapy dosage might reduce adverse effects and also provide insights into the procedure's mechanism of action.

The research was supported by a grant from the National Institute of Mental Health (NIMH) and was co-directed by Sarah Lisanby, M.D., formerly a professor and chair of psychiatry and behavioral sciences at Duke, who became director of the Division of Translational Research at NIMH in September.

For the study, Peterchev's team examined a group of eight male macaques who, at different times, were administered bilateral, right unilateral, bifrontal, or frontomedial ECT. The animals also received MST, using a magnetic coil placed on the top of the head instead of electrodes.

The electrical dosage in the ECT given to the macaques differed in several ways from standard protocols. The researchers found that seizures could be induced with an average amplitude of 112-175 mA—much lower than the 800-900 mA pulse amplitudes currently used in clinical settings to induce seizures. Peterchev and his colleagues also used a train of 500 pulses, rather than the usual under 160 pulses. "Seizure induction with minimum current amplitude minimizes the electric field strength and maximizes its focality for a given electrode or coil configuration and therefore could potentially reduce side effects," wrote the researchers. "This is significant because low-intensity, focal stimulation for seizure induction may be safer than conventional ECT paradigms that stimulate directly a large portion of the brain, as seen with MST."

One problem with conventional ECT administration is that the machines use factory-set intensity levels that cannot be adjusted by the user, explained McDonald. "But brains differ," he said. Such differences may result in variable strength and focality of the induced electrical field, which could account for some of the differences in side effects experienced by patients.

"If we could lower the amplitude, we might make seizures more focal," McDonald said. "This study doesn't show if the therapeutic effect is greater, it just shows that you can create a seizure using a lower current."

Determining an individual patient's seizure threshold is required to provide the correct dosage, a step usually performed by titrating energy upward until the patient seizes, but this approach has some disadvantages, said McDonald. For instance, an initial session might include several sub-threshold impulses that are not therapeutic for a patient, essentially "wasting" a session, he said.

*see* ***ECT*** *on page 22*

Percentages of New and Current Smokers Among Adolescents and Young Adults: An 11-Year Longitudinal Study. *JAMA Pediatr.* 2015. 169(9):e152285. http://archpedi.jamanetwork.com/article.aspx?articleid=2430959

Robert Kneschke/Shutterstock

## Multimorbidity May Be Associated With Greater Risk of MCI, Dementia

Having multiple chronic conditions may be linked to an increased risk of mild cognitive impairment (MCI) or dementia, the *Journal of the American Geriatrics Society* reports.

Researchers from the Mayo Clinic followed 2,176 seniors aged 70 to 89 without dementia for about 5 years to determine if an association existed between multiple chronic conditions and risk of mild cognitive impairment (MCI) and dementia.

The results showed that participants with more than one chronic condition were 38 percent more likely to develop MCI or dementia than those with one or no chronic conditions. Participants with four or more chronic conditions had a 61 percent increased risk of MCI or dementia. Additionally, men with multiple chronic conditions were significantly more likely to develop MCI or dementia than women with equivalent numbers of chronic conditions.

These findings are "consistent with the hypothesis that multiple etiologies may contribute to MCI and late-life dementia," the researchers noted. Preventing chronic diseases may be beneficial in delaying or preventing MCI and dementia, they added.

Vassilaki M, Aakre J, Cha R, et al. Multimorbidity and Risk of Mild Cognitive Impairment. *J Am Geriatr Soc.* 2015 Sep;63(9):1783-1790. http://onlinelibrary.wiley.com/doi/10.1111/jgs.13612/abstract

r.classen/Shutterstock

## Study Suggests That People With Intellectual Disabilities May Be Overprescribed Psychotropics

The proportion of people with intellectual disabilities in the United Kingdom who have been treated with psychotropic drugs far exceeds the proportion with recorded severe mental illness, according to a recent study published in *BMJ*.

To determine the rates of psychotropic prescriptions made to people with intellectual disabilities with or without comorbid psychiatric disorders, researchers from the University College London analyzed the electronic health records of 33,016 adults living in the United Kingdom with a diagnosed intellectual disability. The participants were followed over five years.

Over the course of the trial, 9,135 participants were treated with antipsychotic drugs; 6,503 (71 percent of total prescribed antipsychotics) had no record of having been diagnosed with a severe mental illness. New prescriptions for antipsychotics were significantly more common in older people and those with a record of challenging behavior, autism, and dementia.

"Psychotropic drugs are an important element in the management of specific psychiatric conditions," the researchers noted. "However, we have shown that adults with intellectual disability are treated with psychotropic drugs at a rate far exceeding that of recorded mental illness and that certain subgroups (such as those with challenging behaviors) are significantly more likely to receive antipsychotic drugs." PN

Sheehan R, Hassiotis A, Walters K, et al. Mental Illness, Challenging Behaviour, and Psychotropic Drug Prescribing in People With Intellectual Disability: U.K. Population Based Cohort Study. *BMJ.* 2015 Sep 1;351:h4326. http://www.bmj.com/content/351/bmj.h4326

CLINICAL & RESEARCH NEWS

# Vietnam Veterans Continue to Feel Effects of War

**About 16 percent of theater veterans experienced an increase in PTSD symptoms over the past 25 years. Only half as many—7.6 percent—reported a decrease in symptoms.**

BY AARON LEVIN

Decades after the Vietnam War, an estimated 271,000 U.S. veterans who served in the war have current posttraumatic stress disorder (PTSD) or subthreshold PTSD, and one-third of those also have current major depressive disorder, according to the National Vietnam Veterans Longitudinal Study (NVVLS), published in the September issue of *JAMA Psychiatry.*

Besides its description of the troops who fought decades ago, the study shows their continuing need for access to care, concluded lead author Charles Marmar, M.D., a professor and chair of the Department of Psychiatry at the New York University School of Medicine, and colleagues. The study also points to some of the challenges that may lie ahead for Iraq and Afghanistan veterans, the study authors noted.

From 2012 to 2013, the NVVLS reassessed a sample of 2,348 veterans who were first studied 25 years ago as part of the National Vietnam Veterans Readjustment Study (NVVRS). The NVVLS was funded by the U.S. Department of Veterans Affairs.

"This methodologically superb follow-up of the original NVVRS cohort offers a unique window into the psychiatric health of these veterans 40 years after the war's end," wrote psychiatrist Charles Hoge, M.D., of the Center for Psychiatry and Neuroscience at Walter Reed Army Institute of Research in Silver Spring, Md., in an accompanying editorial.

David Hathcox

The results of the National Vietnam Veterans Longitudinal Study are helping to fill a critical gap in researchers' understanding of how military service 40 or more years earlier affects adjustment in later life, according to Charles Marmar, M.D.

The researchers used several measures to evaluate PTSD and depression, including the Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5) and the PTSD Checklist for *DSM-5* combined with 10 items from the Posttraumatic Diagnostic Scale, termed the PCL-5+.

Veterans who served in Vietnam ("theater veterans") overall had higher levels of PTSD than those who served at the same time but were stationed elsewhere ("era veterans"), said Marmar.

Based on the CAPS-5 criteria, the researchers found that 4.5 percent of male theater veterans had current PTSD and 17 percent met criteria for lifetime PTSD. Adding subthreshold PTSD to the CAPS-5 data resulted in a current prevalence of 10.8 percent and a lifetime rate of 26.2 percent. Among the small number of women included in the study, the current prevalence of PTSD based on CAPS-5 was 6.1 percent and lifetime prevalence was 15.2 percent.

By comparison, the NVVRS—which was implemented from 1984 through 1988—estimated that 15.2 percent of men and 8.5 percent of women who served in the war had current PTSD and that nearly 30 percent of the male and female veterans met lifetime criteria for PTSD.

Lower prevalence rates in the current study might seem encouraging but the present-day numbers may be affected by the deaths of veterans since NVVRS was carried out in 1988. Close to 20 percent of NVVRS participants died before recruitment for the current study. This number is unsurprising, given that "PTSD is strongly associated with mortality," as Hoge noted.

Marmar and his colleagues used the Mississippi Scale for Combat-Related Posttraumatic Stress Disorder (M-PTSD) to also measure changes in PTSD symptoms over time. About 16 percent of theater veterans experienced a deterioration in PTSD symptoms, but only half as many—7.6 percent—improved.

"For era veterans, self-reports of PTSD symptoms during 25 years are low and stable, whereas, for theater veterans, mean levels are higher and increasing," wrote Marmar.

A total of 36.7 percent of all theater veterans with current war-zone PTSD also had comorbid major depression (although with a wide confidence interval); alcohol or drug abuse, however, were not associated with PTSD.

The NVVLS relied primarily on the *DSM-IV* version of the PCL with adjustments for new *DSM-5* criteria, which "allows for direct comparisons across generations," noted Hoge. However, he also returned to questions he has previously addressed about *DSM-5* criteria for PTSD, especially the criteria for avoidance, a standard that Hoge pointed out "is problematic for military personnel and other first responders who learn to override reactions such as fear, helplessness, or avoidance as part of training."

Despite those reservations, Hoge still found much to appreciate in the work of the NVVLS.

"No other study has achieved this quality of longitudinal information, and the sobering findings tell us as much about the Vietnam generation as about the lifelong impact of combat service in general, relevant to all generations," he concluded. PN

"Course of Posttraumatic Stress Disorder 40 Years After the Vietnam War" is posted at http://archpsyc.jamanetwork.com/article.aspx?articleid=2398184. "Measuring the Long-Term Impact of War-Zone Military Service Across Generations and Changing Posttraumatic Stress Disorder Definitions" is posted at http://archpsyc.jamanetwork.com/article.aspx?articleid=2398181.

# Attention-Control Training Reduces PTSD Symptoms

**Veterans trained to balance their attention between threatening and neutral stimuli experienced a greater reduction in PTSD symptoms than those trained only to direct attention away from threatening stimuli.**

BY NICK ZAGORSKI

People have their own biases in what they pay attention to; it's why one person might remember someone's face while another will remember what they were wearing.

In patients with anxiety disorders, the attention paid to specific triggers, such as an enclosed space or a large social gathering, can reach undesirable levels. However, a technique known as attention-bias modification, which trains people to shift their attention from threatening stimuli to neutral ones, is emerging as a potential solution.

After the results of several clinical trials suggested that attention-bias modification can help to reduce symptoms of anxiety, researchers have started to examine whether the technique might also work for patients with posttraumatic stress disorder (PTSD).

"People with PTSD tend to alternate between moments of threat vigilance and threat avoidance, so bias training will address only part of the problem," said Amy Badura Brack, Ph.D., a professor of psychology at Creighton University. A better approach might be to focus on the ability to control these fluctuations, she noted.

In a new study published in the *American Journal of Psychiatry*, Brack joined with colleagues in the United States, Canada, and Israel to demonstrate that attention-control training can reduce PTSD symptoms more effectively than attention-bias modification.

With attention-bias modification, patients try to locate a probe on a screen after seeing a series of images; the probe appears in a spot held by a neutral image so they spend more time looking at those images. Attention-control training uses visual cues to shift attention to a specific stimulus, but instead of shifting attention away from threat, attention-control training aims to balance attention between threatening and neutral stimuli by alternating where the probe appears.

"Basically we are trying to educate veterans to ignore irrelevant information and focus on the task at hand," Brack told *Psychiatric News*.

Two separate groups of male veterans (52 U.S. military and 46 Israeli Defense Forces) with PTSD were randomized to receive four weeks of either attention-bias modification or attention-control training; both sets of trials employed similar testing protocols, though the Israeli team used neutral and aggressive words instead of faces, and performed sessions once a week instead of twice a week.

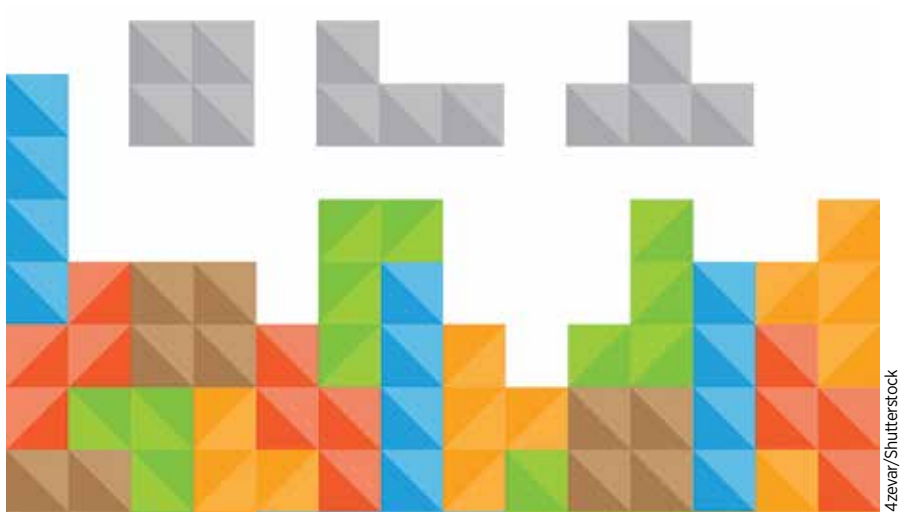
Both testing approaches did reduce PTSD symptoms in the veterans, as measured by both self-reporting and clinician assessment, but the attention-

*see* ***PTSD*** *on page 27*

# Games Like Tetris Might Reduce Unwanted Thoughts

**Healthy people who played a few minutes of Tetris reported a drop in the strength of cravings and intrusive traumatic memories, suggesting the therapeutic potential of games that engage the brain's visuospatial system.**

BY NICK ZAGORSKI



4zevar/Shutterstock

Thirty years after its debut, Tetris has become one of the most indelible video games in our culture, appealing to people of all ages and skill levels. But this block-matching puzzle game may be more than just a fun diversion to pass the time in a subway or waiting room; several researchers are leveraging the game's visual and puzzle-solving elements to help strengthen the mind.

As Jackie Andrade, Ph.D., a professor of psychology at the Cognition Institute of Plymouth University, explained, playing a game like Tetris focuses the brain's visuospatial centers, which may divert a person from concentrating on other things he or she wants, but maybe shouldn't have—like chocolate, alcohol, or cigarettes.

"Cravings can be seen as embodied sensory images related to a particular desire," she said, describing a concept known as elaborated intrusion theory. "When you crave a nice, hot cup of coffee, you are imagining drinking that coffee right now."

Previous studies in Andrade's lab found that playing Tetris could reduce cravings for caffeine or cigarettes. Building upon this research, she and her group decided to expand the paradigm and look at how Tetris might alter other cravings in a real-world setting.

They enlisted 31 healthy undergraduate students as participants and gave each one an iPod outfitted with a questionnaire; half the subjects were also given Tetris. Over the course of a week, the students were asked to periodically report any recent cravings they had, how strong the craving felt, and whether they had given in and indulged that craving. Each time they reported a craving, the participants in the Tetris group were asked to play the game for three minutes and then report again on how strong their craving felt.

As published in *Addictive Behaviors*, Andrade and her team found that these short bursts of Tetris were enough to reduce craving intensity by about 20 percent. Tetris was equally effective in reducing all of the cravings measured, which included alcohol, caffeine, nicotine, food and beverages, and activities such as playing video games or engaging in sex.

"While the [nearly] one-fifth decrease might not sound like much, it's enough to turn a craving that is unbearable into one that is tolerable until it goes away naturally," said Andrade.

Desirable cravings are not the only mental images people may want to go away, however. For people who have experienced abuse, loss, or trauma, painful memories of those emotional events often resurface and can lead to posttraumatic stress disorder (PTSD).

Emily Holmes, Ph.D., who heads the Emotion Group at the Medical Research Council Cognition and Brain Sciences Unit at Cambridge University, has been exploring Tetris as a way to prevent traumatic imagery from becoming consolidated as an emotional memory.

Their research has shown that people who played Tetris either during or shortly after watching a traumatic film reported fewer intrusive memories of that film. Much as in Andrade's studies, the visuospatial nature of Tetris produced competition for the brain's resources, which Holmes believes kept the images in the film from being consolidated as emotional memories.

As a comparison, her group has found that simply playing a pub quiz after watching the traumatic film was not effective in reducing intrusion.

"Now it doesn't have to be Tetris, or even a video game," Holmes said. "The important elements are that the activity keeps the visuospatial parts of the brain engaged with elements like color and motion."

Holmes' latest work shows that Tetris may even be able to reduce intrusive memories after they have become imprinted in the brain through a process known as reconsolidation. "A memory is a bit like plasticine," Holmes explained. "It's got a firm shape, but if you warm it up—start thinking about it—it becomes malleable, and you can reshape it."

In her study, published in the August issue of *Psychological Science*, 72 adult volunteers watched a short trauma video and then came back to the lab 24 hours later. The volunteers were then split into four groups: one listened to music, the second viewed some still images from the film to trigger memory reconsolidation, the third played Tetris for 12 minutes, and the fourth viewed the imagery and played Tetris.

Over the next week, only the participants in the group that viewed the images from the film and played Tetris reported fewer intrusive memories than their counterparts. "So simply playing the game is not enough," Holmes said. "It has to be combined with the reactivation of that memory to have an effect, which supports the idea that the game provides a level of interference."

Of course, while visuospatial interference seems an effective and simple strategy to employ, Holmes and Andrade did caution that their studies were carried out with healthy people. There is a substantial gap between watching a film with disturbing imagery and actually experiencing abuse or combat trauma that leads to PTSD, noted Holmes, and the next step is to see if this approach translates to a real-world setting.

Likewise, while playing Tetris might help encourage healthy behaviors such as dieting or reducing coffee intake, Andrade would not recommend Tetris as an addiction therapy. "Addiction is a very complex problem and requires more than the quick fix that Tetris might confer," she said.

"However, evidence suggests the cravings of addiction are basically the same as regular cravings, but just much higher in strength," she continued. "Tetris could therefore be part of a treatment regimen—whether with a professional or through a self-help program—to help people who are particularly troubled by cravings."

These studies were supported by the UK Medical Research Council, Wellcome Trust Clinical Fellowship, Colt Foundation, and research fellowships from the Royal Society and Plymouth University. PN

An abstract of Andrade's study, "Playing Tetris Decreases Drug and Other Cravings in Real-World Settings" is posted at http://www.sciencedirect.com/science/article/pii/S0306460315002762. "Computer Game Play Reduces Intrusive Memories of Experimental Trauma via Reconsolidation-Update Mechanisms" is posted at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4526368/.

## LAI

*continued from page 11*

injections, choice of drug, and selection of patients best suited to receive LAIs. They also emphasized the critical need for ongoing engagement with patients during intervals between injections.

"Our field needs to recalibrate its attitudes and practice related to LAI drugs," they wrote. "The [Subotnik] study indicates that LAI medications should be considered a first-line therapeutic option in people with early-phase schizophrenia. The injections every two weeks were well tolerated in this study but an injection on a three-month schedule may be preferred by patients and should have the advantage of a prolonged period in which to address nonadherence. However, the clinical relationship and integrated therapeutics require frequent engagement between mental health professionals and patients and prolonged intervals with an LAI drug should not reduce essential patient contact.

"…A patient who objects to an LAI medication every two weeks may be interested in the once-monthly injection that can be accomplished with haloperidol or paliperidone and perhaps fluphenazine and risperidone. … Keeping in mind the absence of RCTs of more than three years and the potential advantages of dosage reductions in the long term, physicians in the field still have much to learn as LAI drug strategies are extended to being given early in the illness and to patients with a better prognosis." PN

"Long-Acting Injectable Risperidone for Relapse Prevention and Control of Breakthrough Symptoms After a Recent First Episode of Schizophrenia: A Randomized Clinical Trial" is posted at http://archpsyc.jamanetwork.com/article.aspx?articleid=2323629. The editorial by Carpenter and Buchanan, "Expanding Therapy With Long-Acting Antipsychotic Medication in Patients With Schizophrenia," is posted at http://archpsyc.jamanetwork.com/article.aspx?articleid=2323625.

# Study Reports on Risks, Benefits Of SSRIs Taken During Pregnancy

**Some neonatal complications are associated with SSRI use in pregnancy, and rare but potentially serious complications have been seen in some women, but generally treatment is indicated in pregnant women with major depressive disorders.**

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BY MARK MORAN

Treatment of maternal psychiatric disorders with SSRIs during pregnancy was related to a lower risk of preterm birth and cesarean section but a higher risk of neonatal complications, according to an analysis of results from a large national birth cohort appearing in *AJP in Advance* (August 4).

Finnish, American, and Swedish researchers analyzed data from Finnish national registries to compare outcomes for pregnant women who were exposed to SSRIs (n=15,729) with those who had a psychiatric diagnosis related to SSRI use but were not exposed to SSRIs (n=9,652) and those who had no psychiatric diagnoses related to SSRI use at any time prior to or during pregnancy and were not exposed to SSRIs (n=31,394).

The outcomes of interest were diagnoses related to pregnancy and delivery, including hypertension of pregnancy/preeclampsia, vaginal delivery or cesarean section, and bleeding during or after delivery. They also looked at neonatal outcomes, including late preterm (32 to 36 gestational weeks) and very preterm birth (less than 32 weeks), small for gestational age, and neonatal problems, including a five-minute Apgar score of less than seven, neonatal breathing problems, monitoring in a neonatal intensive care unit, and hospital stay at seven days of age.

Women in the SSRI group had a lower risk of cesarean section, emergency or urgent cesarean section, and bleeding compared with women who had a psychiatric diagnosis but no medication. (Women in the SSRI group had a higher risk of cesarean section than women with no exposure and no diagnosis). Moreover, compared with the psychiatric diagnosis/no medication group, the SSRI group had a 16 percent lower risk of late preterm birth and a 48 percent lower risk of very preterm birth.

However, babies born to women in the SSRI group were at a greater risk of neonatal complications, including a low Apgar score and monitoring in a neonatal intensive care unit, compared with those born to women with psychiatric disorders that were not exposed to SSRIs. (Babies born to both groups of women with psychiatric disorders experienced more neonatal complications than those born to women who did not have any psychiatric disorders).

"This large Finnish registry study published in *AJP* identifies a set of problems in women who are ill during pregnancy with serious anxiety or depressive disorders, including the delivery of premature or postmature babies," said *AJP* Editor Robert Freedman, M.D. "Both women treated and untreated with SSRIs experience problems, raising the issue that the illnesses themselves are a major contributor to the risks previously ascribed to SSRIs."

According to Freedman, the post-birth reaction of the baby to withdrawal from maternal SSRIs is known to lower Apgar scores and requires neonatal monitoring, sometimes for as long as a week. "These babies are then discharged home with no known further consequences," he said.

Freedman noted that a recent study of 10 U.S. centers by researchers at the Centers for Disease Control and Prevention (CDC) produced similar findings as the report in *AJP*. The CDC study, which was published July 8 in *BMJ*, did not find any of the adverse effects that have been previously reported with sertraline and citalopram, but did find paroxetine and fluoxetine more problematic.

"The problems [associated with pregnant women taking SSRIs] can be serious, involving cardiac and brain deficits [in offspring], but they are quite rare," Freedman said. "For example, serious heart defects increase from 10 per 10,000 in normal untreated women to 24 per 10,000 women treated with paroxetine."

But Freedman added, "It is important for clinicians to understand that the CDC and similar agencies in other countries monitor drug side effects, including fetal problems in pregnant women taking drugs. They report them, even if they are rare, to alert clinicians and their patients of the existence of such side effects and their approximate frequency, but the CDC and other agencies do not generally conduct a risk-benefit analysis to directly guide clinical decisions."

Previous studies show that prenatal depression can have a negative impact on the health of the mother as well as her child. According to Freedman, such risks include "shorter gestation with its attendant decrease in fetal development, poorer maternal-infant bonding, and a slight but significant increase in the long-term risk for psychiatric illnesses ranging from autism spectrum disorder to schizophrenia."

Freedman said that if a mother has major depressive disorder or a similar serious anxiety disorder during pregnancy, generally treatment with appropriate medication and psychotherapy should be part of her regimen. "But she and the father need to be fully aware of the calculus of risks and benefits of treatment versus no treatment that inform this decision," he said.

This study was supported by the Sigrid Juselius Foundation, Foundation for Pediatric Research (Finland), and Finnish Medical Foundation. PN

"Pregnancy Complications Following Prenatal Exposure to SSRIs or Maternal Psychiatric Disorders: Results From Population-Based National Register Data" is posted at http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2015.14121575?journalCode=ajp. "Specific SSRIs and Birth Defects: Bayesian Analysis to Interpret New Data in the Context of Previous Reports" is posted at http://www.bmj.com/content/351/bmj.h3190.

## Key Points

Researchers analyzed data from Finnish national registries to compare outcomes for pregnant women exposed to SSRIs, those with a psychiatric diagnosis related to SSRI use who were unexposed to SSRIs, and those without a psychiatric diagnosis that were unexposed to medications.

- Women in the SSRI group had a lower risk of cesarean section, emergency or urgent cesarean section, and bleeding compared with women who had a psychiatric diagnosis but were not taking SSRIs.
- Women in the SSRI group had a 16 percent lower risk of late preterm birth and a 48 percent lower risk of very preterm birth compared with women who had a psychiatric diagnosis but were not taking SSRIs.
- In SSRI-treated mothers, the risk was higher for offspring neonatal complications, including a low Apgar score and monitoring in a neonatal intensive care unit, compared with mothers who were not exposed to SSRIs. They also had a higher risk of cesarean section than women with no exposure and no diagnosis.

**Bottom Line: When a mother has a psychiatric disorder during pregnancy, treatment with appropriate medication and psychotherapy is generally indicated. However, parents need to weigh the risks and benefits of treatment versus no treatment.**

## ECT

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Instead, Peterchev and colleagues looked to see if they could individualize the ECT and MST pulse amplitude by titrating to the motor threshold instead. (The motor threshold is determined by calculating the electrical dose needed to cause a muscle in the hand to twitch while not inducing a seizure.) With both ECT and MST, the motor threshold predicted 63 percent of the variability in the seizure threshold, according to the researchers.

"This work is groundbreaking in that it seeks to understand the different elements of the stimulus we give patients, breaking it down into the important parameters of how seizures are created," said McDonald.

Exploration of therapeutic applications of this research may begin soon, according to Peterchev.

"We are in the process of planning and implementing clinical studies of low amplitude electric and magnetic seizure therapy, both at Duke and at the NIMH Intramural Program, where Dr. Lisanby will be starting a lab," he said in an interview. PN

An abstract of "Individualized Low-Amplitude Seizure Therapy: Minimizing Current for Electroconvulsive Therapy and Magnetic Seizure Therapy" is posted at http://www.nature.com/npp/journal/v40/n9/full/npp2015122a.html.

# Researchers Develop Composite Image Of Brains of Youth With MDD

**A meta-analysis of 14 imaging studies provides an integrated view of brain regions and pathways that are over- and underactivated in youth with depression.**

BY NICK ZAGORSKI

Understanding how the teenage brain functions under normal circumstances can be challenging. But, for researchers studying major depressive disorder (MDD)—the leading cause of morbidity and disability among adolescents—developing a sense of how the brains of teens with MDD differ from those without may offer new insight into prevention and treatment.

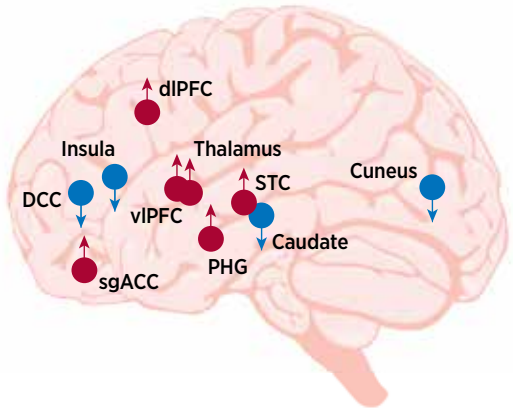
With advances in neuroimaging—notably functional magnetic resonance imaging (fMRI), which measures brain activity through changes in the levels of blood flow—there has been a growing interest in studying abnormalities in the brain structure and function of people diagnosed with depression.

"Most of these imaging studies have focused on one specific brain region that is believed to be connected with a certain symptom," said Ian Gotlib, Ph.D., the David Starr Jordan Professor of Psychology at Stanford University and director of Stanford's Mood and Anxiety Disorders Laboratory. "And those are important studies for our scientific understanding, but what has been lacking [in youth] has been an integrated look at a depressed brain and how these regions interact with each other."

Gotlib believes that developing such integrated models is important, given the Research Domain Criteria (RDoC) initiative set forth by the National Institute of Mental Health (NIMH), which aims to view mental disorders through the prism of biological and neurological measures.

**Several Brain Regions Show Altered Activation In Youth With Depression**

Arrows indicate whether activity is higher or lower relative to nondepressed brains. Most hypoactive regions are associated with the task-positive network, while hyperactive regions are associated with the default-mode network.




In an effort to identify common brain abnormalities and characterize their relationship with specific psychological dysfunctions, Gotlib and his colleagues conducted a meta-analysis of 14 fMRI studies of children and young adults (246 MDD patients and 274 matched controls aged 4 to 24). Their findings were published September 2 in *JAMA Psychiatry*.

The combined picture showed several consistent anomalies that fell into two main categories, and together they helped explain some of the disparate symptoms seen in depressed teens.

Children and adolescents with depression displayed increased activity related to the processing of negative emotions, which could explain common symptoms such as over-sensitivity to emotional stimuli and an inability to regulate their own emotions. They also had diminished activation in areas associated with executive functioning, which could lead to symptoms like excess rumination and lack of motivation.

The changes in specific brain regions also generally paralleled findings seen in adults with MDD, though there were a couple of unexpected alterations.

"The major surprise we observed was that the ventrolateral prefrontal cortex, one of the areas involved in regulating emotions, was hyperactive in youth," Gotlib told *Psychiatric News*. "And the traditional lore has been that is an underactive area in adult depression."

Gotlib suggested that such changes in activity as an adolescent with depression grows older may reflect an adjustment to compensate for overstimulation. "You can imagine a scenario where this region gets exhausted with the excess activity and trying to modulate emotions, and therefore the connections become downregulated over time," Gotlib said.

As for his lab's future goals, they involve taking this knowledge gained from the imaging studies and testing whether focused interventions can alter maladaptive patterns of brain activation. "If we know that a patient has faulty circuits related to emotion regulation, for example, could we train them to think or act in certain ways that could change their activity patterns?"

This study was supported by grants from NIMH as well as fellowships from the National Science Foundation and Stanford University. PN

An abstract of "Meta-Analysis of Functional Neuroimaging of Major Depressive Disorder in Youth" is posted at http://archpsyc.jamanetwork.com/article.aspx?articleid=2431084.

## Advocacy

*continued from page 5*

able Care Act—while the state's existing Medicaid budget is threatened with cuts that would dramatically reduce the Medicaid reimbursement rate for physicians.

"One of my objectives is to send a short questionnaire to each chief resident and program director in the eastern United States," she said. "This will compile tangible data of how budget cuts have affected individual residency programs and their patients. I will use the data to communicate a message to educate both our residents and policy leaders to galvanize support for our mission. Knowledge is power and is ultimately what stimulates change. As psychiatrists and humanitarians, we need to unite to fight for improved funding policies and be the voice of the masses that can't speak for themselves due to alienation, stigma, and the handicap that is mental illness."

"These two candidates stood out as having a real passion for advocacy to help ensure the long-term vitality of our profession," Charles Price, M.D., chair of the APAPAC Board, told *Psychiatric News*. "They will be a tremendous addition to our Board and will help to engage the APA's resident members in the PAC and in APA's advocacy efforts."

Price said he believes residents and fellows have perhaps the greatest stake of all in APA's advocacy. "They are the ones whose professional careers will be affected and changed by what happens in the political arena," he said. "Our trainees and early career psychiatrists should want to have a voice in political affairs today because it is their lives and practice as psychiatrists that will be impacted, for better or worse, going forward."

APAPAC is a nonpartisan political action committee that represents the profession of psychiatry and mental health care to the U.S. Congress. APAPAC supports candidates regardless of political affiliation.

Through the financial contributions of its members, APAPAC works for the election of congressional candidates who demonstrate support for issues critical to the field psychiatry and psychiatric patients and practice. APAPAC's goal is to make sure psychiatry is part of the process in determining policies that will impact mental health parity, network adequacy, federal scope of practice standards, Medicare funding, physician payment levels, mental health research, telepsychiatry, and residency education.

Legislative priorities include comprehensive mental health reform, parity, health plan provider network adequacy, research funding, and the psychiatric workforce shortage. PN

Information about APAPAC is posted at http://www.psychiatry.org/psychiatrists/advocacy. APA's Action Center can be accessed at http://cqrcengage.com/psychorg/home.

## Telepsychiatry

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another patient. It's a zero sum game.

In contrast, telepsychiatry integrated care models that place mental health specialists in consultative and supportive roles within the context of primary care have the potential to make a much larger impact at the population level. Integrated care models can increase the reach, and thereby the population-level effectiveness, of mental health specialists. While practice-based models of integrating mental health care into primary care are effective in clinics that have mental health providers on site, they don't necessarily work in small, rural primary care clinics that lack on-site mental health staff. However, the collaborative care model, a specific type of integrated care, has been shown to be effective regardless of whether the mental health and primary care providers are physically co-located, opening the door for adapting the model using telemedicine technologies.

In telepsychiatry collaborative care, multiple members of the care team can be located off site including the care manager, psychiatric consultant, teletherapist (delivers evidence-based psychotherapy via virtual care technology), and telepharmacist (conducts medication histories via chart review and/or telephone calls with patient). Telepsychiatric consultations and telepsychotherapy are delivered using interactive video in the primary care clinic, but web-based or smartphone audio-video communications may be used with patients in their homes or other private location. Telephone psychiatric consultations can also be effective with patients who are otherwise difficult to engage.

Three randomized, controlled trials of telepsychiatry collaborative care have demonstrated that this approach is clinically effective and cost-effective. The first focused on pharmacotherapy for depression in VA community-based outpatient clinics. Compared with usual care, rural veterans randomized to telepsychiatry collaborative care were more likely to adhere to their medications and respond to treatment and achieve remission.

The second trial focused on pharmacotherapy and psychotherapy for PTSD, also in VA community-based outpatient clinics. Compared with rural veterans in usual care, veterans randomized to telepsychiatry collaborative care were more likely to engage in evidence-based psychotherapy and experience clinically meaningful reductions in PTSD symptom severity.

The third trial focused on pharmacotherapy and psychotherapy for depression in Federally Qualified Health Centers. Compared with practice-based collaborative care without specialty mental health involvement (for example, care manager only), rural patients randomized to telepsychiatry collaborative care had modestly higher engagement in both psychotherapy and pharmacotherapy. In addition, they were much more likely to respond to treatment and achieve remission. Implementation studies have also shown the feasibility of implementing a clinically effective telepsychiatry collaborative care program into routine care.

Other telepsychiatry models also look promising such as the telepsychiatry behavioral health consultant model (currently being evaluated through a VA-funded trial) and the telepsychiatry curbside consultation model, in particular the Specialty Care Access Network-Extension of Community Healthcare Outcomes (SCAN-ECHO) model. In SCAN-ECHO, a team of mental health specialists guides primary care providers through clinic assessment and treatment during virtual case reviews. This creates a benefit not only to the patient whose case is being reviewed, but also to other patients who have similar conditions as the primary care provider's knowledge and skills increase over time.

Identifying which patients are most appropriate for which model of telepsychiatry is also an important consideration.

Patients with less complex, less severe, or less treatment-resistant mental health problems may do well in primary care treatment with curbside consultation, whereas patients with complex, severe, and/or treatment-resistant mental health problems may experience better outcomes with a telepsychiatry referral. The most cost-effective approach is likely to be a stepped-care model in which patients receive the least resource-intensive telepsychiatry care initially and then are "stepped up" to a more resource intensive care model if they do not respond to treatment. A reasonable sequence of care may be (1) primary care with telepsychiatry curbside consultation, (2) primary care with telepsychiatry consultation-liaison, (3) telepsychiatry integrated care, and (4) telepsychiatry referral. Alternatively, complex, severe, and/or treatment-resistant patients could be stepped up immediately to more intensive care.

In the age of health care reform and accountable care organizations, the specialty mental health sector needs to reframe its mission of health care delivery to focus on the care of populations in need rather than the health of the relatively few patients who overcome the many barriers to care and present for treatment in a mental health specialist's office. Telepsychiatry can help, and both payment reform and more research are desperately needed to incentivize and inform this growing field. PN

*Editor's note:* Information on APA's telepsychiatry initiatives will be reported in a future issue.

## Innovation

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activity can identify the depressed youth who will respond to an antidepressant and those who will not.

Croarkin is also working with colleagues to determine whether pharmacogenomics profiling might be used to improve antidepressant treatment in depressed and bipolar youth. The platform they are using is called GeneSight Psychotropic With Mood Stabilizers. It determines, in a particular patient, which variations of eight genes known to influence antidepressant metabolism and response are present.

Their study includes a broad spectrum of teens who meet criteria for major depression or bipolar disorder. The GeneSight Psychotropic With Mood Stabilizers panel will be used to obtain a unique pharmacogenomics profile for each of the enrolled patients. The teens will then be randomized to one of two groups. In one group, the clinician will have their GeneSight results to guide antidepressant treatment decisions; in the other group, the clinician will not. "Then we'll compare the outcome for both groups at four weeks, eight weeks, and six months later to see whether it was beneficial having the clinician use the GeneSight results," said Croarkin.

In fact, multiple clinical studies conducted by other researchers have found that when clinicians used GeneSight to help guide treatment decisions, patients were twice as likely to respond to the selected medication. Many psychiatrists

around the United States are already using pharmacogenomics testing.

### Research on rTMS Offers Promise

Existing evidence supports repetitive transcranial magnetic stimulation (rTMS) as a treatment for adult treatment-resistant depression. This brain stimulation modality is approved by the Food and Drug Administration for adults and used clinically in many areas of the United States. But can rTMS also help youth with treatment-resistant depression? A small study that Croarkin and his group conducted suggests that it can.

"We have an ongoing sham-controlled trial and are currently developing additional trials to test this possibility. We are also studying the effect of rTMS on the glutamate neurotransmitter system to better understand the mechanisms of action and to develop biomarkers to predict response to rTMS at baseline," he said.

Indeed, if there were only one thing that he could achieve during the next five years, it would be to make rTMS a viable treatment option for youth with treatment-resistant depression, Croarkin indicated.

"We have a long way to go, however," he said. "We'll need more input from basic scientists and biomedical engineers to develop new forms of stimulus delivery and, ultimately, individualized approaches that target certain regions of the brain."

Croarkin's single-mindedness to help children and adolescents with mental illness will undoubtedly lead him to achieve that ultimate goal.

"As his mentor, I can state with confidence that Dr. Croarkin is a very intelligent, highly motivated young researcher who is focusing his research on complex childhood neuropsychiatric disorders," said Mustafa Husain, M.D., vice chair of psychiatry at Duke University. "His work will help us understand the etiopathology of these complicated behaviors and eventually lead to neuromodulation therapies." PN



## PTSD

*continued from page 20*

control training had greater benefits in both study groups. Among U.S. military, for example, clinician-rated PTSD scores dropped from 72 to 56 after attention-bias modification, and from 72 to 44 following attention-control training.

"We feel good about the validity of these findings, as we had similar benefits in two independent sets of veterans using two slightly different protocols," Brack said.

"What's also promising is that none of the participants was taking psychiatry medications or engaged in psychotherapy, which suggests attention-control training could be used as a standalone treatment."

Brack and her team are currently engaged in converting the computer programs into a web deliverable format that patients could access more easily, though she does believe attention-control therapy should be a prescribed treatment and not completely open access.

She also noted that it is important to carry out further studies in other groups, particularly women, who may have PTSD as the result of other, non-combat traumatic events to see how well they respond to attention-bias modification and attention-control training.

This study was funded by Creighton University, Tel Aviv University, and AtEaseUSA. PN

"Effect of Attention Training on Attention Bias Variability and PTSD Symptoms: Randomized Controlled Trials in Israeli and U.S. Combat Veterans" is posted at http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2015.14121578.

## Insel

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(NIH), NIH Director Francis Collins, M.D., Ph.D., said that under Insel's leadership, NIMH has "nurtured a culture of science that puts the needs of patients with serious mental illness at the center of its efforts."

### Integrating Neuroscience and Psychiatry

In addition to the BRAIN initiative, other major endeavors undertaken during Insel's tenure include the Psychiatric Genomics Consortium, which involves more than 500 researchers in more than 80 institutions across 25 countries; the Army STARRS (Study to Assess Risk and Resilience in Servicemembers) project, a partnership with the Department of Justice on the largest study of mental health risk and resilience of military personnel; the National Database for Autism Research, considered the most significant repository for autism-related data; and RAISE (Recovery After an Initial Schizophrenia Episode), an NIMH research effort that seeks to change the trajectory and prognosis of schizophrenia through coordinated and aggressive early treatment.

"When I came to the directorship in 2002, I had a number of things I hoped to accomplish, and one was to integrate neuroscience and psychiatry and create a new discipline of clinical neuroscience," Insel told *Psychiatric News*. "I think that has happened, and over the last decade we have seen a new cohort of brilliant young neuroscientists who are now focused on trying to understand serious mental illness. While I think that effort isn't complete, it is well on its way to success."

He added that a metric for the success of this integration of neuroscience and psychiatry is the increase in the number of M.D.-Ph.D. researchers who are interested in training in psychiatry.

Insel said that while APA and NIMH have distinct missions, their goals and objectives complement each other. "A really critical issue that has emerged in the last decade has been the gap between research and practice in psychiatry—the fact that it takes many years to translate research into changes in practice," he said. "A part of the reason for this gap has been the way we do research—which has largely been within academic settings that are often far removed from the real world of clinical practice.

"What we've learned from areas of medicine that have made progress in closing this gap—such as pediatric oncology and pediatric cardiology—is the importance of moving research into practice. What I would love to see develop is what is sometimes called 'the learning health care system' in which practice becomes a way of optimizing diagnostics and therapeutics."

He said APA's Practice Research Network—composed of clinicians who collect and share clinical research data from their practices—is an important step in the right direction. "The Practice Research Network is the kind of initiative that benefits APA, NIMH, and ultimately patients and clinicians," he said.

Insel said he saw no conflict between *DSM* and the Researcher Domain Criteria (RDoC), which was initiated at NIMH under his leadership to reconceptualize diagnosis of mental illness according to "domains" of brain function defined by genetics and neurobiology.

"RDoC is a guide to rethinking the way we do diagnosis and may inform *DSM-6* or *-7*, but for now clinicians should be using the *DSM* and ICD," Insel said. "At this point there is very little in genetics or neuroscience that can give us something better. RDoC is a pathway to get there, but is not a product that can be used in the near term."

In May 2013, Insel and then APA President-elect Jeffrey Lieberman, M.D., issued a joint statement saying that along with the International Classification of Diseases, *DSM* "represents the best information currently available for clinical diagnosis of mental disorders" and that the two publications "remain the contemporary consensus standard to how mental disorders are diagnosed and treated."

They added, "All medical disciplines advance through research progress in characterizing diseases and disorders. *DSM-5* and RDoC represent complementary, not competing, frameworks for this goal."

Insel said his new endeavor as a member of the Google Life Sciences team is an adventure that still waits to be defined. A wholly owned subsidiary of Alphabet, the Google Life Sciences team seeks to change outcomes in various areas of life science by at least tenfold—and Insel will be joining the team to identify those areas in mental health that are "ready for a times-10 change in outcomes."

He added, "What those areas will be will depend largely on discussions we have over the next several months." Insel will be relocating to the San Francisco Bay Area in January, when he joins the team.

After a great many accomplishments at NIMH, it is a "propitious" time to leave, he said. "The institute will be in very good hands with Bruce Cuthbert, while the search for a successor goes on," Insel told *Psychiatric News.* "I believe the institute is in a very good place and poised to seize on new opportunities for the future." PN

More information about the statement from Lieberman and Insel is posted at http://alert.psychnews.org/2013/05/lieberman-insel-issue-joint-statement.html.

## United Healthcare

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with the mission of the association and that physicians are permitted to represent the interest of their patients.

APA President Renée Binder, M.D., commented, "The court's decision gives professional organizations, such as APA and NYSPA, the right, on behalf of its members and their patients, to sue for mental health parity violations, which is important because patients are often unable to speak out for themselves. This ruling gives us hope that the Mental Health Parity Act of 2008 will now be enforced."

Also, the court decision recognized that United could be sued even when it acted not as the insurer but as the administrator of a self-insured plan. This means that the carriers are at risk under MHPAEA whenever they exercise discretion in the administration of benefits and employees do not have to sue their employer (as United argued) to recover benefits.

The court opinion states that "United appears to have exercised total control over the … Plan's benefits denial process. It enjoyed 'sole and absolute discretion' to deny benefits and make 'final and binding' decisions as to appeals of those denials. And assuming that United's actions violated [the plantiff's] rights under ERISA, United is the only entity capable of providing direct relief … We therefore hold that where the claims administrator has 'sole and absolute discretion' to deny benefits and makes 'final and binding' decisions as to appeals of those denials, the claims administrator exercises total control over claims for benefits and is an appropriate defendant in an action for benefits. United is such an administrator and is accordingly an appropriate defendant…."

Seth Stein, J.D., executive director of NYSPA, hailed the court's decision as a victory for NYSPA members and their patients. "NYSPA pursued this lawsuit to help enforce federal parity rules," he told *Psychiatric News.* "We are pleased that the court agreed that NYSPA had standing at this point in the litigation to represent the interests of our members and their patients, particularly where we believe that health plans are violating federal parity laws and interfering with access to care for the treatment of mental illness. The decision of the court regarding the ability to sue plan administrators is particularly important because it removes a technicality that plan administrators might raise to avoid being responsible when they make determinations that run afoul of federal parity laws."

That technicality is that plan administrators could say it is the employers who are liable as plan purchasers.

The original lawsuit was brought by NYSPA and several individual patients, a member psychiatrist, and a psychologist in March 2013 alleging that UnitedHealth Group and subsidiaries, including United Behavioral Health, systematically violated the federal parity law and the Affordable Care Act. NYSPA joined the suit on behalf of its members and their patients.

At that time, Stein told *Psychiatric News* that NYSPA had fielded numerous complaints from its members about denial of mental health and substance use treatment by United (*Psychiatric News,* April 5, 2013).

APA and NYSPA were supported in the suit by the AMA, which also filed an amicus brief. The AMA brief stated, "The complaint here alleges systematic violations of federal and state law. These violations have injured members of NYSPA and their patients. The patients suffer social stigmas and other obstacles preventing their remedying these violations except through the aid of their psychiatrists. Due to the pervasive nature of the violations, an association of psychiatrists can and should lead the legal effort to right those wrongs."

Also filing in support of NYSPA were the Department of Labor and former member of Congress Patrick Kennedy, one of the authors of the parity law. Both asserted that Congress never intended third-party entities such as an insurance company that is hired by self-insured companies and makes all decisions about employees' medical and mental health benefits to be exempt from legal liability (*Psychiatric News,* May 12, 2014).

In his blog on APA's website, APA CEO and Medical Director Saul Levin, M.D., M.P.A., wrote, "APA is working tirelessly to advance parity. ... We've brought greater attention to parity at the U.S. Department of Labor, to state attorneys general, and to major employers—and we are finding that many people are interested in helping." PN

The blog post by Levin is posted at http://psychiatry.org/news-room/apa-blogs/apa-blog/2015/08/a-step-closer-to-strong-parity-enforcement.

## Liability

*continued from page 6*

tions and laws vary between states.)

- **Clinicians should be cautious when an informal inquiry turns into patient diagnosis and treatment.** This may change a psychiatrist's role/duties to the patient.

- **Clinicians should understand the supervisory relationship with other members of the team, including other behavioral health providers.** Clear delineations of responsibility should be established between team members. Psychiatrists need to be aware of who is supervising whom and that they could potentially be liable for the acts of those who are under their supervision. Clinicians should know employment contractual obligations and whether the contract sets forth duties as a supervisor, administrator, or partner/shareholder.

- **Members of an integrated care team should establish mechanisms of effective communication with the other team members.** Is there a documentation process to communicate with the other team members or is it through verbal communication?

- **Psychiatrists are advised to be aware of HIPAA/HITECH privacy rules as well as state rules and regulations regarding privacy.** They should ensure that, when indicated, consent is obtained to exchange patient health information with other providers.

- **Clinicians should always adhere to the clinician's professional ethical guidelines**.

- **Integrated care team members are advised to be aware of the organization's policy and procedures.**

- **Even if a psychiatrist provides an informal consultation, he or she may not necessarily be immune from being added as a defendant in a lawsuit.** PN

"A Resource Document on Risk Management and Liability Issues in Integrated Care" is posted at http://www.psychiatry.org/psychiatrists/search-directories-databases/library-and-archive/resource-documents. A summary of the document was published in the *American Journal of Psychiatry* at http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2014.1710501.

## Response

*continued from page 15*

treated with antipsychotics," Sarpal noted in the article. "The results we found open the door for contemporary 'precision medicine' approaches to psychiatry, and more specifically, the use of fMRI scans as important players in the treatment of psychiatric disorders."

Fornito, who was not involved in this study and has been using brain connectivity scans as potential markers to identify the risk of psychosis and other psychiatric illnesses, applauded the work of Sarpal's team for successfully validating their discovery. He also noted that the results are consistent with findings from both his group at Monash and a research group at the Institute of Psychiatry, Psychology, and Neuroscience in London.

"We are seeing a general trend in which lower baseline functional connectivity between certain areas predicts better treatment response," he said.

Trends are not absolutes, however, and Fornito added that considerable work is required to improve the accuracy of these fMRI measurements and demonstrate their robustness among different patients and different settings. Head-to-head comparisons that examine the relative utility of connectivity-based measures for predicting key outcomes relative to more traditional measures like volume changes in specific regions will be important moving forward as well.

"Unfortunately, measures of brain connectivity are intrinsically complex. Changes in cortical thickness or volume can be measured using fairly standard analysis techniques, and these measures are univariate, meaning they index a single property of the brain," Fornito said. "Measures of connectivity, however, are multivariate, and there is ongoing debate over the best methods for processing the data in order to obtain the most accurate measures of connectivity."

Nonetheless, Fornito noted there may be much to gain from using fMRI to assess treatment response. "Functional MRI may still be somewhat costly, but surely the cost of a scan far outweighs both the economic cost and personal toll of inadequate or incorrect medication."

This work was supported by grants from the National Institute of Mental Health. PN

"Baseline Striatal Functional Connectivity as a Predictor of Response to Antipsychotic Drug Treatment" is posted at http://ajp.psychiatryonline.org/doi/full/10.1176/appi.ajp.2015.14121571.