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PSYCHIATRIC NEWS

AMERICAN PSYCHIATRIC ASSOCIATION

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Olivier Douliery/Sipa USA (Sipa via AP Images)

In an emotion-laden press conference last month at the White House, President Barack Obama announces a series of executive actions intended to expand background checks for some firearm purchases, step up federal enforcement of the nation's gun laws, and increase access to mental health care. See story at right.

Obama Takes Action to Cut Gun Violence, Boost MH Access

The president announced his plan to reduce firarms violence while surrounded by the families of gun victims and gun control activists.

BY AARON LEVIN

President Barack Obama announced several executive actions early in January intended to reduce gun violence, including an additional $500 million to increase access to mental health treatment.

"While individuals with mental illness are more likely to be victims of violence than perpetrators, incidents of violence continue to highlight a crisis in America's mental health system," said the president in an accompanying statement.

Other provisions called for expanding background checks for gun purchasers, upgrading the background check system, improving enforcement of existing gun laws, and promoting research on gun-safety technology.

Such "common sense" measures have been repeatedly blocked in Congress, said the president.

"Excuses no longer suffice," he continued. "The time has come not to debate the last mass shooting but to prevent the next one."

The president was introduced at the White House event by Mark Barden, the father of Daniel Barden, who was killed in the mass shooting at Sandy Hook

see **Obama** on page 23

APA To Launch Training Under Federal Integrated Care Grant

The first levels of collaborative care training under the $2.9 million federal grant will be available to psychiatrists via seven online modules and full-day, in-person training sessions at APA's 2016 annual meeting and IPS: The Mental Health Services Conference.

BY MARK MORAN

APA is launching online training modules and offering in-person training at APA's 2016 annual meeting in Atlanta to teach psychiatrists the skills necessary to practice in collaborative care. In-person training also will be available in October at the 2016 IPS: The Mental Health Services Conference.

The initiative is part of the Transforming Clinical Practice Initiative (TCPI), a $2.9 million, four-year federal grant from the Centers for Medicare and Medicaid Services (CMS). APA is one of just 39 organizations chosen to participate in the TCPI.

Training will be available at five levels. The first level is an introduction to the collaborative care model, a specific model of integrated care developed by the late Wayne Katon, M.D., Jürgen Unützer, M.D., M.P.H., and others at the AIMS (Advancing Integrated Mental Health Solutions) Center at the University of Washington. The second level will teach the specific skills necessary to participate in collaborative care, and a third level is a "learning collaborative" in which participants will work with other psychiatrists and primary care physicians around the country to share ideas and learn from each other.

The fourth and fifth levels will be devoted to teaching psychiatrists how they can be "thought champions" and leaders of integrated care initiatives

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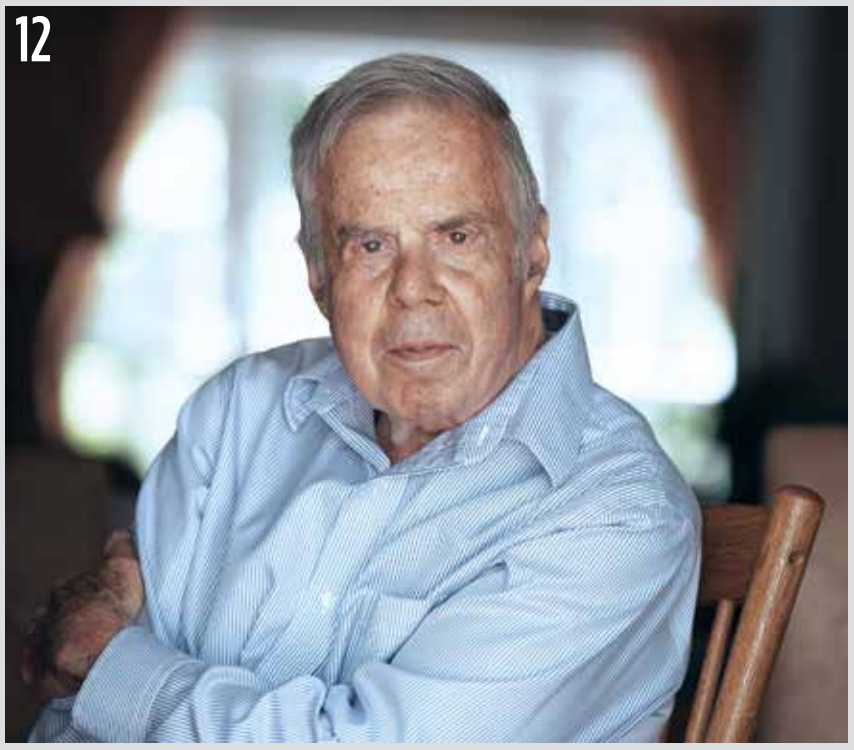

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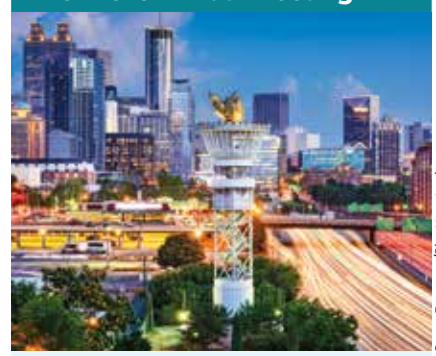

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Plan now to attend the premier psychiatric event of the year—APA's 2016 annual meeting. The meeting will be held May 14 to 18 in Atlanta. Register now to take advantage of advance registration fees and be assured of reserving a room in your first-choice hotel. To access the annual meeting website, go to http://www.psychiatry.org/annualmeeting. More information is available by calling the APA Meetings and Conventions Department at (703) 907-7822 or by emailing registration@psych.org.

Departments

FROM THE PRESIDENT

Should Psychotherapy Remain Part of Psychiatry?

BY RENÉE BINDER, M.D.

As we are making huge advances in neuroscience and genomics, the day may come when we can better understand the etiology of mental disorders and devise biologic treatments that target the underlying mechanisms. In one of his blogs, Tom Insel, M.D., immediate past director of the National Institute of Mental Health, wrote about changing the field of psychiatry into the field of clinical neuroscience. The article is posted at http://www.nimh.nih.gov/about/director/2012/the-future-of-psychiatry-clinical-neuroscience.shtml.

I would argue that psychiatrists need to keep the practice of psychotherapy as one of their essential skills, even as the toolbox that psychiatrists use to diagnose and treat our patients will continue to deepen and expand. In the future, as we add modalities for diagnosis and treatment, we also need to improve on existing modalities.

Challenges to Keeping Psychotherapy as a Required Skill of Psychiatrists

In recent times, there has been a decline in psychotherapy training in most psychiatric residencies. Part of this is due to the increase in other requirements in training programs, and part of it is due to financial and economic factors of practice after completing residency. The truth is that psychiatrists can generate more income by doing 15- to 20-minute medication visits than by doing psychotherapy. In addition, in some team-based settings, the psychiatrist's role is to prescribe medications. Psychiatrists, the most expensive members of the team, are not providing psychotherapy, which other less-expensive mental health professionals can provide.

I served as a senior examiner for the oral part of the ABPN specialty boards and watched candidates being examined throughout the United States. I can remember many times when the examiners asked a candidate to describe the best treatment for a depressed patient. As expected, the candidate would typically include psychotherapy in the list of recommended treatments. When the examiners asked questions about the techniques of various psychotherapies, it was not unusual (and not a reason for failure) for candidates to respond that they did not know the techniques because they did not do psychotherapy. Instead, they would refer patients to a psychologist or other mental health professional! The examiners realized that this response and practice was a reflection of what was being taught in ACGME-approved residencies.

An Institute of Medicine report on psychotherapy released in July 2015 ("Psychosocial Interventions for Mental Health and Substance Use Disorders—A Framework for Establishing Evidence-Based Standards") looked at psychosocial treatments in psychiatry. It addressed some of the problems in the knowledge base for the field of psychotherapy: "Although a wide range of evidence-based psychosocial interventions is currently in use, most consumers of mental health care find it difficult to know whether they are receiving high-quality care. Providers represent many different disciplines and types of facilities, the delivery of care is fragmented, interventions are supported by varying levels of scientific evidence, performance metrics may or may not be used to measure the quality of care delivered, and insurance coverage determinations are not standardized" *(Psychiatric News,* August 7 and December 4, 2015).

The report points out that much of the research on evidence-based psychotherapies is done utilizing manualized treatments, but that in practice most psychotherapists do not stick to these manualized techniques. The findings in this report accurately address the heterogeneity of psychotherapies and the challenges for patients and therapists in knowing what treatment is best because there so many types of therapy, and the promoters of each type claim that their brand of therapy is best.

Use of Psychotherapy as Early Intervention, Treatment for Mental Disorders

Ongoing research has validated the use of psychotherapy as a skill to treat serious mental disorders, and this is unlikely to change, even as we develop

see ***From the President*** *on page 11*

EXCLUSIVE ONLINE CONTENT

In Memoriam
APA honors the members whose deaths were reported to APA from October 1, 2015, to December 31, 2015.

To access *Psychiatric News*'s online-only content, go to http://psychnews.psychiatryonline.org/doi/full/10.1176/appi.pn.2014.onlineonly or scan the QR code with your smartphone.

Clinicians Say Integrated Care Is Highly Satisfying

Clinician responses to work in integrated care were extremely positive, but some challenges were identified—especially around the "culture change" necessary for a transition to integrated care.

BY MARK MORAN

Lori Raney, M.D.

Study coauthor Lori Raney, M.D., said psychiatrists find it very rewarding to work in a setting that allows them to help far more people than they would be able to working as an individual practitioner.

Working in an integrated care setting that allows psychiatrists to reach a larger number of patients in a variety of practice settings is highly satisfying, according to a survey of 52 clinicians published in *Psychiatric Services in Advance* on December 15, 2015.

Integrated care enables clinicians to reach "patients with mental health issues that without an integrated care approach would go undetected and untreated," said one psychiatrist, in comments reflective of the overwhelmingly positive response.

Lori Raney, M.D., chair of the APA Work Group on Integrated Care, and colleagues from the University of Washington School of Medicine recruited psychiatrists for the survey from two sources: an online e-list developed to increase connections among clinicians working in integrated care and participants in previous national training sessions in integrated care implementation. The survey was available electronically to this group of psychiatrists, who self-identified as working in integrated care.

Sixty-seven respondents completed the survey between November 2011 and January 2012. The sample represented psychiatrists distributed across the United States, including the Northeast, South, Midwest, and West. Only psychiatrists working in integrated care settings at least five hours a week were included in the analysis. A total of 15 respondents were excluded because they were psychiatry residents or psychiatrists without direct patient care responsibilities.

The survey was composed of 36 multiple-choice questions addressing integrated care practice characteristics, team composition, common consultation questions, and systems issues. Six open-ended questions assessed the psychiatrists' opinions and experiences.

Nearly all respondents reported that they provided consultation regarding medication recommendations (n=51) and diagnostic clarification (n=50). Forty-four respondents reported requests for consultation on behavioral interventions, and the same number reported requests for education on a specific topic. The most common diagnoses associated with consultation were anxiety, depression, and substance use disorders.

Responses to open-ended questions about the experience of working in integrated care were almost unanimously positive. The analysis highlighted four themes in respondents' subjective experiences: working in a patient-centered care model, working with a team, the psychiatrist's role as educator, and opportunities for growth and innovation. Some strengths of the model highlighted by those surveyed were that it fosters patient-centered care and offers benefits of working in a team—for example, "mutual support and efforts when helping patients who have a complex clinical presentation."

Many comments revealed positive effects of the education provided by psychiatrists. "I enjoy educating and feeling like my efforts are reaching so many more people than they do in the traditional model of care," one psychiatrist wrote.

Some challenges were reflected in survey responses, especially around the "culture change" required in a transition to integrated care. For instance, one respondent noted that "team members ... feel threatened by expanding their scope of practice or by allowing others to enter into an arena previously reserved just for them."

Cultural change also emerged as a challenge when training new team members: "You get this well-designed functioning team and then someone leaves and the new person is hesitant/resistant for a while until you get the person in the groove." Respondents also reported financial challenges, including "always fighting for resources and reimbursement systems that tend to encourage nonintegration."

In remarks to *Psychiatric News*, Raney said the survey is the first to look at psychiatrists' practice in integrated settings. "Core tasks including curbside consultation, education of team members, working with team dynamics, and providing leadership in primary care settings were reported by psychiatrists who participated in the survey," she said. "The ability to reach more people in need of behavioral health treatment through the psychiatrist-supported approach in the collaborative care model was viewed as a very rewarding experience."

Raney urges APA members to take advantage of training in integrated care that APA will be providing as part of the Transforming Clinical Practice Initiative, a grant program for which APA is receiving $2.9 million over four years to train 3,500 psychiatrists in the clinical and leadership skills needed to support primary care practices that are implementing behavioral health programs (see page 1). APA is one of just 39 health care organizations selected by the Centers for Medicare and Medicaid Services to participate.

Raney said, "Continued efforts to engage more psychiatrists in this work are needed, and this study provides the first report of the core tasks and satisfaction experienced working in this exciting new area of psychiatric practice." PN

"The Role of the Integrated Care Psychiatrist in Community Settings: A Survey of Psychiatrists' Perspectives" is posted at http://ps.psychiatryonline.org/doi/abs/10.1176/appi.ps.201400592.

PSYCHIATRY & INTEGRATED CARE

Treating Bipolar Disorder in Primary Care

Psychiatrists practicing integrated behavioral health care are increasingly being asked to advise and assist in the treatment of patients with bipolar disorder. Joseph Cerimele, M.D., M.P.H., is an integrated care psychiatrist with a special interest in bipolar disorder, and in this month's column, he provides a timely overview of the treatment of bipolar disorder in primary care.

—Jürgen Unützer, M.D., M.P.H.

BY JOSEPH CERIMELE, M.D., M.P.H.

Bipolar disorder has historically been viewed as a specialist-treated illness, though increasingly many patients with bipolar disorder present to and receive treatment in primary care settings. There are several ways to consider the illness burden of bipolar disorder in primary care settings, including:

- Prevalence compared with that of the general population
- Proportion of patients seeking treatment in primary care
- Clinical characteristics
- Quality of care in primary care
- General medical illness burden

In general, the prevalence of bipolar disorder in primary care settings is approximately twice that of bipolar disorder found in the general population. The National Comorbidity Survey Replication (NCS-R) results estimated the general population prevalence of bipolar I and II disorder at about 1 percent each, and subthreshold bipolar disorder at about 2.4 percent, based on assessments using structured interviews.

In primary care studies, structured interviews of random primary care samples revealed bipolar disorder I or II in up to approximately 4 percent of the patients. Prevalence estimates increased to up to 9 percent when including individuals with bipolar I, bipolar II, or subthreshold bipolar disorder illnesses. Among primary care patients presenting with a psychiatric symptom complaint, up to 10 percent

see **Integrated Care** on page 14

Joseph Cerimele, M.D., M.P.H., is an acting assistant professor in the Department of Psychiatry and Behavioral Sciences at the University of Washington and a member of the *Psychiatric News* Editorial Advisory Board. Jürgen Unützer, M.D., M.P.H., is a professor and chair of psychiatry and behavioral sciences at the University of Washington, where he also directs the AIMS Center, dedicated to "advancing integrated mental health solutions."

PROFESSIONAL NEWS

Giving Patients With Serious Mental Illness Mobile Boost to Quit Smoking

Even as new technologies emerge, therapists ought to be engaged with patients when considering current mobile strategy options.

TECH TIME

BY NICK ZAGORSKI

While conducting his training in clinical psychology, Roger Viladarga, Ph.D., encountered many people with schizophrenia and other severe mental illnesses (SMI), which exposed him firsthand to the high prevalence of smoking in this patient population.

"I had read about the alarming statistics in journal articles, but now I could see how generalized this problem was, and how hard it was for these patients to receive professional cessation help," he said. "They had struggles with their insurance, difficulty getting medications like Chantix. It felt like a social justice issue to get them some help."

One thing these patients did have, though, was access to technology.

"I had seen in a survey that 70 percent of patients with an SMI had some type of mobile device and/or Internet capability," Viladarga, an acting assistant professor in the Department of Psychiatry and Behavioral Sciences at the University of Washington, told *Psychiatric News*. "It led me to think that a mobile cessation app might offer some help."

While it might seem like an easy solution to find—there are hundreds of cessation apps available—there were in fact some glaring issues.

"The problem with available apps is that only a handful are evidenced based, almost none has been tested in clinical trials, and none has been designed for the unique needs of someone with SMI," he said.

Lessons Learned From Patients' Challenges

So, with the help of a grant from the National Institute on Drug Abuse, Viladarga has been hard at work developing a new tool to help people with mental illness stop smoking.

Named Learn to Quit, Viladarga's app is based on QuitPal, an official app of the National Cancer Institute (NCI) and one of the few using evidence-based guidelines for smoking cessation.

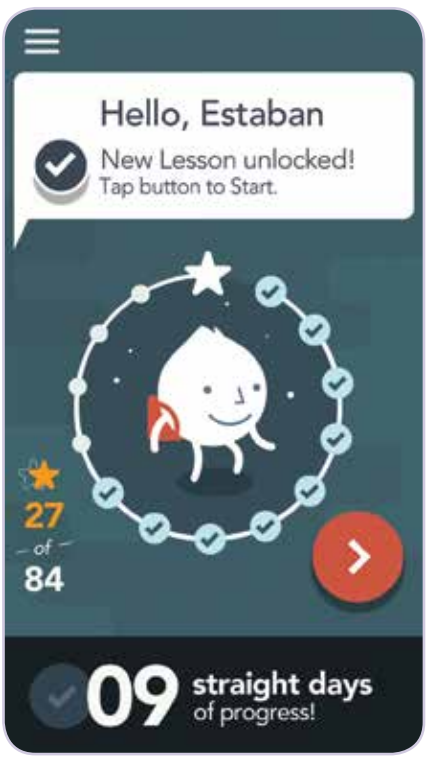
Over 200 hours of field testing with this app with SMI patients found that even this app was lacking in several areas of design and infrastructure.

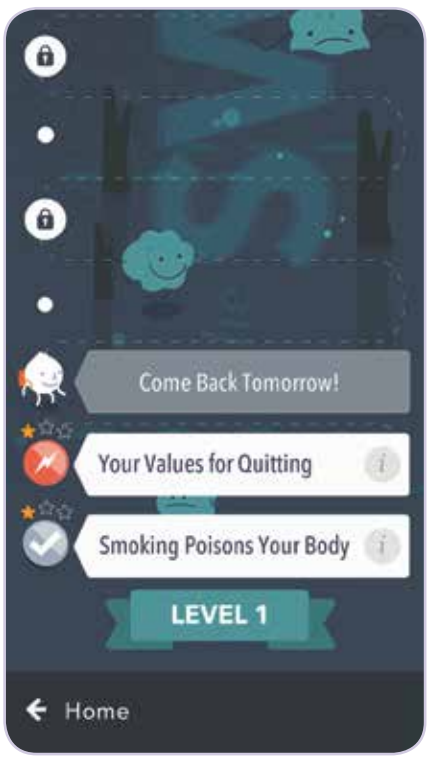
"Our field participants needed a lot of guidance for even simple tasks, like entering information in the app, and they also had difficulty with the touchscreen," he said. "So it's important to build an app that has very few layers, with large icons, and the option to enter fractions of a cigarette as the patients frequently take a few puffs at a time and save the rest for later given the expense of cigarettes."

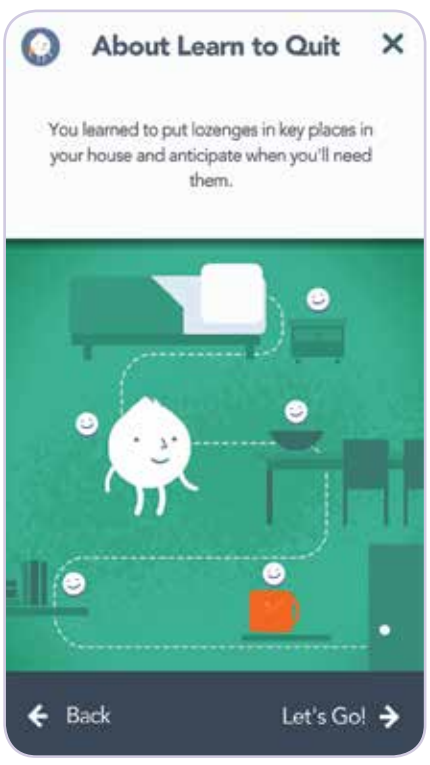
Viladarga does note some positives, too. "These patients like the idea of tracking their behavior and having more awareness of their smoking levels, so this approach does have an appeal."

He has now completed some tests with a paper version of the app, with encouraging results, and is working with colleagues in academia and industry to finish the mobile version, with an aim to carry out a clinical study sometime this year.

"I'm eager to get this out to the patients who need it, but it does take time to test new programs and make sure they're ready," he told *Psychiatric News*.







Therapists Need to Learn Apps as Well

"Technology is moving so fast, and I'm not sure that most clinicians are really prepared to integrate mobile apps into the fold," said Douglas Ziedonis, M.D., a professor and chair of psychiatry at the University of Massachusetts Medical Center and an expert in nicotine addiction.

Ziedonis told *Psychiatric News* that since psychosocial cessation therapies are typically not reimbursed for dual-diagnosis patients, therapists do encourage patients to try self-help approaches like telephone quitlines or apps, but they do not know which ones would work best for their patients.

"Until more tailored tools like Roger's app become available, we need some practical strategies to help clinicians identify appropriate apps and train them to use these apps so they can properly coach their patients."

Ziedonis noted that a colleague at the University of Massachusetts, Edwin Boudreaux, M.D., recently co-wrote a paper that discussed a seven-point strategy to evaluate and select mobile health care applications, which he thinks would work for cessation apps as well.

Viladarga agreed that therapists need to be more engaged with their patients when considering mobile strategies. "We found in our user testing that the patients need a lot of guidance, so in creating the app, we are also developing a parallel coaching system to help the user understand and navigate the technical details, so the clinician can be well versed in how it works."

"Remember, an app can help provide some tools and strategies for someone trying to quit, but the clinician is there to empower the person to want to quit," Viladarga continued.

In terms of current options, he noted that clinicians can stick with the few applications that have been empirically tested or are based on clinical guidelines, which include items like the NCI apps QuitPal and QuitGuide, and SmartQuit, which was developed and tested by the Fred Hutchinson Cancer Center.

But while training and encouraging clinicians to embrace mobile cessation strategies might be a short-term goal, Ziedonis is also looking ahead and considering many intriguing questions.

"In many of these apps, you have to enter some personal data. Where do those data go?" he wondered. "What other risks or ethical considerations do we need to consider as we provide all these digital tools to our patients? That is critical to consider." PN

PROFESSIONAL NEWS

APA Task Force to Develop Guidelines to Assess Apps, Wearable Sensors

The group's goal is to enable clinicians to judge the value of apps and wearable sensors.

This article was written by John Torous, M.D., Marie Tan Gipson, M.D., and Steven R. Chan, M.D., M.B.A., on behalf of APA's Smartphone App Evaluation Task Force.

TECH TIME

With over 165,000 health care apps directly available to patients and clinicians, finding the right one can be daunting. As smartphones and wearable sensors become more common and interest in mobile technology in health care continues to accelerate, there is a need to bring more order and clinical understanding to these smartphone apps and wearable sensors.

The situation is no different in psychiatry, with some sources suggesting

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there are more apps targeting mental health conditions than any other specialty, such as cardiology, pulmonology, or rheumatology. Perhaps your patients are already using mental health smartphone apps or they will soon ask for your opinions of apps. User-provided reviews and ratings on the iOS-based Apple iTunes, Android-based Google Play, and Android-based Amazon App Store app marketplaces provide few data on quality, safety, or efficacy of smartphone apps or wearable sensors. The FDA has taken a largely hands-off approach and does not monitor the safety or efficacy of most smartphones apps aimed toward mental health.

Thus, the mission of APA's Smartphone App Evaluation Task Force is simple. We seek to bring the collective psychiatric wisdom and expertise of all APA members and apply their feedback toward creating recommendations and guidelines for the valid, safe, and practical use of smartphone apps and wearable sensors in clinical care.

We recognize this is challenging as there are numerous barriers and many unknown risks regarding the use of this technology for psychiatric patients. We also recognize that the use of these technologies will not be appropriate in many clinical situations and is certainly not a panacea.

One chief barrier in understanding these apps is the lack of strong clinical

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evidence of efficacy in psychiatric illness, and thus there is no gold standard for what is an effective and useful app. Another is the complexity of security and privacy regulations surrounding these apps and the need to ensure that—at the technical level—these apps maintain patient privacy and comply with local and federal laws (for example, the Health Insurance Portability and Accountability Act).

With these barriers in mind, our task force is ready for the challenge and brings together members with unique clinical, technical, and engineering backgrounds. While offering APA members a practical app-rating system is one of our goals, our initial aim is to create a series of broader app-use guidelines to which clinicians can refer for assessing any app or wearable sensor. We will also educate APA members on the current research of mobile technologies in a clinical setting, inform on current trends in industry and patient use of mobile technology, report on potentials as well as pitfalls concerning apps, and educate regarding mobile compliance with privacy regulations and best practices for use in clinical care.

Look to future issues of *Psychiatric News* for guidelines on how to evaluate apps and actual rating scales soon after. In the meantime, please send your comments about the process to jtorous@gmail.com or jtorous@bidmc.harvard.edu. We look forward to working with you and APA. PN

RESIDENTS' FORUM

New Guide Offers Wisdom on Challenges of Residency

BY RAVI N. SHAH, M.D., M.B.A.

When and how often should I check voicemail? How should I handle a gift from a patient? How can I use supervision to help me improve my skills? Do I have to and should I get my own therapy? How can I get involved in research, if I'm not already published? I'm still learning myself—how can I teach a medical student? What are the most important journals in our field? What are the best books to prepare for PRITE and the boards? These (and many more) questions all residents face are addressed in *A Resident's Guide to Surviving Psychiatric Training, Third Edition,* a publication for APA's resident and fellow members written by psychiatry residents, fellows, and attending physicians and designed to help you navigate these challenges.

As I look back on the last three and a half years of my psychiatry residency, I truly believe my experience has been an incredible journey of both personal and professional development. Given the adaptive function of forgetting, it would be easy to gloss over the challenges, but it is also important to remember them. I recall feeling physically and emotionally exhausted working nights and weekends, feeling criticized when others told me that psychiatry is not "really" medicine or science, and questioning our field's ability to help people when working with the most severe and recalcitrant patients. During these times, psychiatry residency can be very isolating, and it is easy to lose sight of the plain and simple fact that our predecessors before us have survived and even thrived in the face of many of these challenges. We do not have to figure out everything on our own, but we do have to find our own personal narrative of how we fit into our field.

To help bridge this gap and navigate the sometimes rough terrain of a psychiatry residency, residents from across the country originally convened in 1999 through the Group for the Advancement of Psychiatry to write the *Resident's Guide.* It was created to provide practical skills, tips, and tricks for managing common and difficult aspects of our training. The *Resident's Guide* is the culmination of years of experiences of residents, fellows, early career psychiatrists, and experts in the field. It was recently updated by the APA Leadership Fellows and APA SAMHSA Substance Abuse Fellows to reflect even more timely topics like social media, business skills, resident and patient suicide, and cultural challenges in psychiatry.

This handbook is meant to be a reference guide across the four years of psychiatry residency, and I think you will find it useful in new ways as you develop and progress. The *Resident's Guide* is not a clinical textbook for the student learning psychiatry, but rather a resource for the person becoming a psychiatrist.

Finally, to add my own practical tip, I strongly encourage you to print out the guide and keep a copy for yourself. You might also encourage new interns to access the guide as well when they begin their training. I hope you and your colleagues will find this collection of experiences and advice useful as you create your own path to becoming a psychiatrist. Happy reading! PN

The guide can be accessed on APA's website at psychiatry.org/residents.

Ravi N. Shah, M.D., M.B.A., is APA's resident-fellow member trustee and chief resident in the Department of Psychiatry at Columbia University Medical Center.

COMMUNITY NEWS

Police-Involved Deaths of People With Mental Illness Poorly Counted

Many deaths of mentally ill people at the hands of police are poorly documented and could be prevented.

BY AARON LEVIN

Jaromir Chalabala/Shutterstock

The well-known overrepresentation in the criminal justice system of people with mental illness often begins with the encounter between the individual and a police officer.

Too many of those initial interactions end in tragedy, with the preventable death of the person with mental illness, reported Doris Fuller of the Treatment Advocacy Center in Arlington, Va., and three colleagues.

"By all accounts—official and unofficial—a minimum of 1 in 4 fatal police encounters ends the life of an individual with severe mental illness," wrote Fuller in a December 2015 report, "Overlooked in the Undercounted."

The Treatment Advocacy Center is a national nonprofit organization dedicated to eliminating barriers to the treatment of severe and persistent mental illness and supports the development of innovative treatments and research. The center was founded by E. Fuller Torrey, M.D., who is also executive director of the Stanley Medical Research Institute, a supporting organization of the center.

Officer-involved shootings can also occur with individuals who are suicidal, noted APA President Renée Binder, M.D., a professor of psychiatry at the University of California, San Francisco.

"Sometimes the person is trying to provoke the officers to shoot him or her in order to commit suicide," Binder told *Psychiatric News*. "I have known of cases where the deceased individual left a note for the police officers, apologizing for forcing the officer to shoot him or her."

Even in nonfatal incidents, confrontation with mentally ill people may also cause injury to the police officer, another rationale for better training of officers, said Binder.

"It is clear that police officers need specialized training for recognizing that an individual may be psychotic and manifesting delusions, hallucinations, or disorganized thinking," said Binder. "When officers are called to the scene, they may misinterpret the behavior as being aggressive and criminal, rather than as symptoms of mental illness."

The actual scope of the problem is unclear, however, given the poor statistics on police shootings in general and on the mental health status of victims, they said. No single database or government entity collects data on such cases, but the report suggests that the annual number of deaths may reach 1,000, more than twice the figures usually reported. The lack of standard definitions, reporting methods, or central reporting entities doesn't help, either. Sometimes even state agencies get their data from media reports.

Fuller and colleagues recommended that law enforcement agencies better define use-of-force policies and train their officers to understand them. They also suggested programs—like the Memphis Police Department's Crisis Intervention Training and others—that mix education about mental illness and de-escalation techniques for officers with on-call mental health response teams to lessen the need for the use of force during encounters.

In this report, as in previous ones, the Treatment Advocacy Center also recommended an increase in inpatient hospital beds for acute and chronic psychiatric care, reform of laws restricting treatment for high-risk individuals, and greater use of court-ordered outpatient treatment "for individuals with severe mental illness who, because of their inability to stay in treatment voluntarily, have a history of poor outcomes (for example, repeated hospitalization, incarceration, suicide attempts)."

"I support the call for more research and data about officer-involved shootings of persons with mental illness and also the need for better access to and funding for mental health treatment," said Binder. PN

"Overlooked in the Undercounted: The Role of Mental Illness in Fatal Law Enforcement Encounters" is posted at http://www.tacreports.org/overlooked-undercounted.

From the President

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more targeted neuroscientifically informed interventions. For example, the recent RAISE research (Recovery After an Initial Schizophrenia Episode) has shown that psychosocial interventions can improve outcomes. In addition, psychotherapy interventions have been shown to alter the circuitry of the brain.

I remember when clozapine was available in the United States only through an IND (investigational drug application). At that time, I was director of an inpatient psychiatric unit, and I was approached by members of the local chapter of the National Alliance on Mental Illness who wanted clozapine to be tried on their loved ones. I obtained an IND and started using it on patients who had been unresponsive to other medications and who had negative symptoms of schizophrenia. For some of the patients, clozapine had remarkable results. I remember distinctly the reaction of one of the family members who saw her adult son reading a newspaper in the day room. The shocked family member told me that her son had not read a newspaper in over 10 years! Now that this patient had a decrease in his negative symptoms and an increase in interest in the world around him, much still needed to be done in terms of therapeutics. Psychosocial treatments as well as psychotherapy became an essential part of this patient's rehabilitation.

In addition, many studies have demonstrated that psychotherapy combined with psychotropic medications have an additive effect for many of the disorders that we treat. Moreover, even when psychiatrists have the role of prescribers, they often need to apply the principles of good psychotherapy training. Even in the context of a medication-oriented patient visit, psychotherapy principles can be used to further patient insight or motivation in the hopes of increasing medication effectiveness or compliance.

Future of Psychotherapy

So what is the future of psychotherapy as part of the practice of psychiatry? The 2014 APA resource document titled "Psychotherapy as an Essential Skill of Psychiatrists" states, "Of all mental health practitioners, only psychiatrists are privileged—and able—to provide all therapeutic modalities … and integrated comprehensive treatment." The position statement on psychotherapy, passed by the Board of Trustees in December 2015, states that APA should advocate for psychiatrists "to be reimbursed by payers in a manner that integrates care and does not provide financial incentives for isolating biological treatments from psychosocial interventions."

We also need to advocate for research on psychotherapy. In its report on psychosocial interventions, the Institute of Medicine committee offered a framework for use by the behavioral health field in developing efficacy standards for psychosocial interventions. The committee recommended that "psychosocial interventions be considered in terms of their elements of therapeutic change, and that these elements be subject to systematic reviews, quality measurement, and quality improvement efforts."

In my opinion, it would be a huge mistake for psychiatrists to give up psychotherapy as one of our essential skills. Other disciplines would gladly provide this treatment instead of us. But we would lose the ability to provide one of our core treatments that are incredibly helpful to our patients. We also would lose the ability to provide one of the most rewarding modalities of psychiatric practice for those of us who chose psychiatry as a specialty because of the ability to develop relationships with patients and understand and treat them as whole human beings.

There is a growing but false dichotomy between neuroscientific and psychosocial interventions. We need to advocate for keeping psychotherapy in our toolbox, expanding research on the common elements of psychotherapy, and furthering its use in novel ways in different types of psychiatric conditions. PN

ASSOCIATION NEWS

Robert Spitzer, M.D., Dies at Age 83, Hailed as Pioneering Diagnostician

He is credited with leading a movement that placed psychiatry within the larger house of medicine by introducing a system of nosology based on evidence.

BY MARK MORAN

Robert Spitzer, M.D., a towering figure in contemporary American psychiatry and a leading architect of APA's *Diagnostic and Statistical Manual of Mental Disorders (DSM),* died on December 25, 2015, at the age of 83.

He is widely known outside the profession as the individual responsible for leading a movement to have homosexuality removed from the list of disorders in *DSM* in 1973. Within the profession, he is also known as the pioneer of a system of measurement and assessment for diagnosing mental illnesses that helped to move American psychiatry toward a more evidence-based nosology. He chaired the task force that produced *DSM-III* in 1980, and though the manual has evolved, the essential elements of classifying mental disorders in discrete categories with specific diagnostic criteria are retained in today's *DSM-5*.

APA leaders and those who worked closely with Spitzer over many years hailed a psychiatrist who was forceful, opinionated, and sometimes combative but deeply committed to improving the diagnosis and care of people with mental illness.

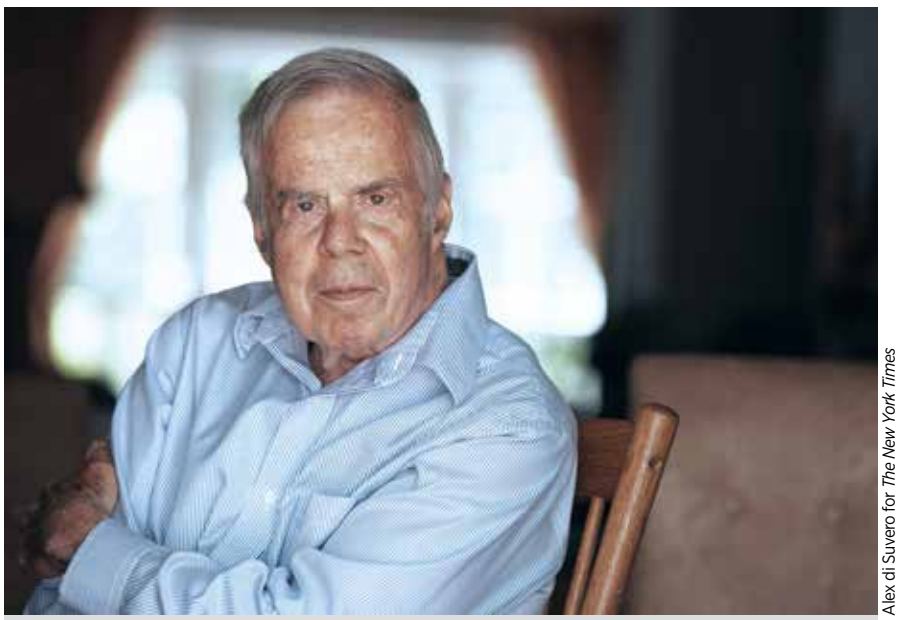
"Robert Spitzer was a hero of modern psychiatry whose work will have a lasting impact," said APA President Renée Binder, M.D. "His pioneering work in measurement and assessment has informed successive editions of *DSM*, creating a reliable diagnostic system that is recognized throughout the world. His leadership in removing homosexuality from the manual more than 40 years ago was a landmark achievement for the LGBT community, our profession, and our patients. We are deeply saddened by his loss."

"Robert Spitzer, M.D., was a major force in advancing psychiatric diagnosis," agreed APA CEO and Medical Director Saul Levin, M.D., M.P.A. "I admire him not only for his contribution, but also his integrity."

Establishing Psychiatric Bona Fides

"I think Bob Spitzer is a classic example of the right person at the right place at the right time," former APA President Jeffrey Lieberman, M.D., told *Psychiatric News.* Lieberman is chair of the Department of Psychiatry at Columbia University, where Spitzer spent his career. He is also chair of psychiatry at New York Presbyterian Hospital, director of the New York State Psychiatric Institute, and author of *Shrinks: The Untold Story of Psychiatry.*

"He had an incredibly active and intelligent mind, and he was brimming with self-confidence. He could be outspoken and assertive to the point of being overbearing, and he never shrank from confrontation. He was fundamentally a seeker of the truth," said Lieberman. "He was appointed by APA leadership to head the process of re-establishing the profession's bona fides with a more evidence-based, scientifically justified diagnostic nosology. Spitzer was charged with this responsibility, and he succeeded brilliantly. He ruffled some feathers in the process and dealt with a lot of challenges, conflicts, and controversies, but he was successful."



Alex di Suvero for *The New York Times*

Robert Spitzer, M.D., was known as the psychiatrist most responsible for the removal of homosexuality from the list of disorders in *DSM.*

DSM-III introduced the use of categories of mental illness with specific diagnostic criteria, as well as the multiaxial system, which was eliminated from *DSM* for the fifth edition.

Lieberman was echoed by Michael First, M.D., editorial and coding consultant for *DSM-5*. He also was editor of the *DSM-IV-TR*, editor of text and criteria for *DSM-IV,* and editor of the *Handbook on Psychiatric Measures.*

"The anti-psychiatry movement was flourishing," First said of the time prior to *DSM-III.* "Psychiatric diagnosis was widely assumed to be so unreliable that the odds of two psychiatrists agreeing on a diagnosis was like flipping a coin. By capitalizing on scientific work and coming up with a method for making diagnosis more reliable, *DSM-III* was a huge step toward putting psychiatry on the map as a legitimate medical specialty. It was Bob Spitzer's vision to create diagnostic criteria that could be used by clinicians everywhere and that could be the lingua franca of the entire field."

First did a fellowship in biometrics research under the direction of Spitzer, whom he credits as his mentor. "My entire career was shaped by my decision to come to Columbia to work with Bob," First told *Psychiatric News.*

Lieberman pointed out that among Spitzer's lesser-known accomplishments (at least among the general public) was his work in establishing a diagnosis for posttraumatic stress disorder (PTSD). Working with psychiatrists Chaim Shatan, M.D., Robert Lifton, M.D., and others, Spitzer listened to the stories of veterans returning from Vietnam and appointed Nancy Andreasen, M.D., later editor of the *American Journal of Psychiatry*, to head a work group on developing criteria for what would be called PTSD in *DSM-III.*

David Kupfer, M.D., chair of the *DSM-5* Task Force, said the inclusion of criteria for sleep disorders in the new manual owes much to Spitzer's early work.

At the Center of Debates About Homosexuality

It was around the issue of homosexuality that Spitzer's passion for evidence—as well as his deft political skills—became evident to the APA leadership. In the early 1970s, gay activists, including gay psychiatrists within the APA membership, began to advocate for the elimination of homosexuality as a mental disorder in *DSM.*

Spitzer had become convinced that gay men and women, on the basis of their homosexuality alone, could not be determined to be mentally ill. In part because of his leadership, homosexuality was removed from the diagnostic list in 1973—after extraordinarily heated debate—and replaced with a new category proposed by Spitzer called "sexual orientation disturbance." This designation could be used for individuals who were unhappy or distressed because of their sexual orientation. It was later termed "ego dystonic homosexuality" in *DSM-III,* a category that was dropped for *DSM-III-R.*

Jack Drescher, M.D., said Spitzer's leadership on the issue, by focusing on subjective distress experienced by the patient, provided a template, of sorts, for how to approach mental illness generally.

"If gay people were not distressed or unhappy with their orientation, how could we categorize homosexuality as a disorder if we were not simply moralizing?" said Drescher, training and supervising analyst at the William Alanson White Institute and past chair of the APA Committee on Gay, Lesbian, and Bisexual Concerns.

Years later, Spitzer, perhaps reflecting a penchant for controversy, surprised many people when he presented a paper at APA's 2001 annual meeting that attracted enormous media attention based on a study purporting to show that some gay individuals could change their orientation through "reparative therapy."

A decade later, Spitzer recanted the study. In a letter to the editor of the *Archives of Sexual Behavior,* where the study appeared in 2003, Spitzer issued a mea culpa. "I believe I owe the gay community an apology for my study making unproven claims of the efficacy of reparative therapy," he wrote. "I also apologize to any gay person who wasted time and energy undergoing some form of reparative therapy because they believed that I had proven that reparative therapy works with some 'highly motivated' individuals" (*Psychiatric News,* June 15, 2012).

Drescher, who came to know Spitzer personally, said he believes Spitzer was genuinely surprised and aggrieved that his study had become a flash point in the "culture wars."

Spitzer also drew attention for his criticism of the process used in the development of *DSM-5*. But even as an adversary he was regarded by all as a worthy one who sought the truth.

"I think he had one of the most original minds I have ever met," Drescher said. "Were it not for what Bob Spitzer accomplished, it would not have been possible for someone like me to have a profession in psychoanalysis, and even though he made some errors along the way, the good he did easily outweighed the bad." PN

ASSOCIATION NEWS

Mental Illness in America's Jails Also Made Headlines 50 Years Ago

Incarcerating people with mental illness is not a new phenomenon, as a look into the *Psychiatric News* archives reveals.

BY AARON LEVIN

The presence of hundreds of thousands of persons with mental illness locked in America's jails and prisons today echoes a similar—if numerically smaller—crisis revealed in the pages of *Psychiatric News* in its May and June 1966 issues.

"A century after Dorothea Dix began her campaign for decent mental hospitals, the practice of locking up mentally ill people in jails is still widespread," wrote managing editor Raymond Glasscote half a century ago. "The practice is by no means limited to those charged with crimes. Many thousands of people whose only offense has been the bizarre, confused, and disoriented behavior that marks some mental illnesses are held there, sometimes for many weeks.

"They fall into two principal categories: those awaiting evaluation because their behavior has suggested that they are mentally ill (and by no means all of these are suspected of being dangerous either to themselves or to others); and those already certified as being mentally ill who are awaiting transportation to a public mental hospital."

"Compared with 1966, we have an additional tragedy today," said APA President Renée Binder, M.D., in an interview. "Patients with psychiatric illness are being housed in jails, not so much for short-term evaluation, but for longer-term incarceration."

In 1966, large state and county mental hospitals were still the norm, and deinstitutionalization had barely begun. Passage of the landmark Community Mental Health Act of 1963, intended to provide federal financing to states to develop community mental health centers, helped little. Despite all those hospitals, there remained a shortage of beds.

Glasscote queried mental health program directors in 14 states. A spokesperson for the Texas Department of Mental Health said, "I would estimate that over half of the mentally ill patients in Texas who are awaiting diagnosis or commitment and are considered incompetent or dangerous spend at least a few days in a local jail. Only one of the large metropolitan areas and a few of the smaller ones have made any sort of arrangement to hold patients in hospitals while awaiting transfer to the state hospitals."

Jails may have been the only, or occasionally the best, facilities available to temporarily house such patients. Local general hospitals often were unequipped or unwilling to care for them.

"The APA-AHA Liaison Committee estimates that more than half of the general hospitals in the United States have specific prohibitions in their charters against admitting a psychiatric patient under any circumstances whatever," wrote Glasscote. "A further consideration is whether, even if such prohibitions were removed, very many of the hospitals would have the staff with the training and experience, not to mention inclinations, to deal with disturbed patients."

Conditions may have changed since the 1960s, but patients are no better off, said Binder.

"Fifty year later, we still have a shortage of psychiatric beds, and we lack comprehensive, coordinated community treatment facilities and programs that could serve as alternatives to hospitalization," she said. "Patients with mental illness continue to have difficulty getting access to care in psychiatric facilities. In 2016, in contrast to 1966, patients are more likely to be boarded in emergency rooms rather than in jails, waiting for an evaluation and for placement, but this is also inappropriate. There are inadequate numbers of trained personnel in the emergency rooms, and the practice of boarding acutely psychotic, assaultive, suicidal, or disorganized patients is disruptive to the patient as well as to the medical/surgical patients who are also in the emergency room."

Some states did better than others, reported Glasscote in the *Psychiatric News* article.

"All of our hospitals have taken active steps to help educate the communities and law enforcement bodies," said Pennsylvania's commissioner of mental health, William P. Camp, M.D. "Many of our hospitals are willing to provide a physician to visit the jail and examine the individual being held so that he can be hospitalized quickly."

Most striking about the difference between then and now is the numbers involved. Glasscote quoted an article from the *Miami Herald* of March 1966: "Last year, during a 10-month study period," the article reported, "136 persons were confined in Dade County jail (Miami) after the county judge's court found them mentally incompetent. Another 150 were ordered by the criminal courts to undergo psychiatric evaluation at Jackson Memorial Hospital, but they were sent to jail instead."

By comparison, more than 4,000 people with mental illnesses sit in Miami Dade County jails today, according to Miami Judge Steven Leifman, and that is after five years' worth of reforms that increased opportunities for diversion and treatment while decreasing the population from 7,800.

"We never deinstitutionalized; we just transferred responsibility from a hospital system to the prison system," Leifman said.

"Plus ça change, plus c'est la meme chose," agreed Binder. "The more things change, the more things stay the same. With the closure of the state hospitals and the lack of development of community alternatives, the jails and prisons have become the de facto psychiatric facilities of the 21st century." PN

This article is one in a series marking the 50th anniversary of the publication of *Psychiatric News*.

Integrated Care

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of patients were found to have bipolar disorder on a structured interview.

Another way to look at the bipolar disorder illness burden in primary care is to consider where individuals with bipolar disorder seek care. Results from the NCS-R showed that over their lifetime, almost all patients with bipolar I or II disorder had received treatment from a psychiatrist. However, in the past 12-month period, about the same proportion of people with bipolar I or II disorder sought treatment in primary care settings as those seeking treatment from psychiatrists. Among individuals with subthreshold bipolar disorder, approximately 2.5 times as many people sought treatment in primary care compared with specialty psychiatric care over the last 12 months. Most people received treatment from a psychiatrist at least once during their lifetime, but few have received treatment from a psychiatrist in the past 12 months. It seems over time patients move between receiving treatment in primary care and specialty mental health settings.

Our research on patients with bipolar disorder in Washington state had similar findings. The majority of patients with bipolar disorder in our sample had previously been treated by a psychiatrist, and over one-third of patients had been

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LEGAL NEWS

Telepsychiatry: Who, What, Where, and How

Telepsychiatry is an effective tool for treating psychiatric patients if state law, certain requirements, and good patient care practices are followed.

BY KRISTEN LAMBERT, J.D., M.S.W., L.I.C.S.W., AND MOIRA WERTHEIMER, J.D., R.N.

Telepsychiatry is the application of telemedicine to psychiatry and is one of the most widely used telemedicine applications. Telepsychiatry uses electronic communication and various technologies to provide psychiatric care between a psychiatrist in one location and a patient in another location.

A key driver behind the growth of telepsychiatry is the national shortage of psychiatrists, particularly in specialty areas and in rural and underserviced geographical areas. This article focuses on risk management issues that may arise in telepsychiatry sessions occurring between a psychiatrist and a patient. Keep in mind, however, that telepsychiatry sessions may also occur between these individuals:

- Physicians in consultation
- A physician and another health care provider (for example, a case manager, clinical nurse practitioner, or physician assistant)
- A physician and nonphysician mental health providers (for example, social workers, therapists, or psychologists)

Kristen Lambert, J.D., M.S.W., L.I.C.S.W., is vice president of the Psychiatric and Professional Liability Risk Management Group, and Moira Wertheimer, J.D., R.N., is assistant vice president of the Psychiatric Risk Management Group at AWAC Services Company, a member company of Allied World.

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previously psychiatrically hospitalized, though all were currently seeking treatment in primary care. Furthermore, the patients with bipolar disorder seeking treatment in primary care had a high depression symptom burden, co-occurring problems such as substance use, and significant psychosocial impairment. However, many patients didn't improve with treatment in primary care.

Quality of care measures such as receipt of appropriate medication treatment and co-occurrence of general medical problems are additional ways to consider the illness burden of patients with bipolar disorder seen in primary care. Research from the Department of Veterans Affairs showed that patients with bipolar disorder treated exclusively in primary care settings were more likely to have co-occurring general medical problems and less likely to receive optimal medication treatment for bipolar disorder. Other studies including the NCS-R have also shown that patients with bipolar disorder treated in primary care settings were less likely to receive mood-stabilizing medication and more likely to receive either no medication treatment or antidepressant medication without mood-stabilizing medication.

General medical illnesses such as diabetes or chronic obstructive pulmonary disease frequently occur in individuals with bipolar disorder and can have significant consequences. Results published in 2013 from Sweden showed that individuals with bipolar disorder had a shortened life span by about nine years compared with individuals without bipolar disorder. Premature mortality was due to chronic illnesses, infections, and accidents/suicide. Notably, however, individuals who had medical problems detected and treated earlier on had a lower risk of mortality, approaching the risk of those without bipolar disorder. Chronic illnesses such as cardiovascular diseases are commonly detected and treated in primary care, suggesting that pairing general medical and bipolar disorder treatments could improve individuals' overall well-being and health outcomes.

Going forward, we need to think about how psychiatrists can support treating patients with bipolar disorder who seek treatment in primary care. Additionally, patients currently seeking treatment from a psychiatrist may eventually shift care into primary care settings, which underscores the importance of communication with primary care colleagues. Care models supporting treatment of patients with psychiatric illnesses in primary care such as collaborative care may offer other avenues for improving the mental health, and perhaps general health, outcomes of patients with bipolar disorder seen in primary care. PN

Here are some risk management considerations:

- **Standard of Care:** Using telepsychiatry does not change the standard of care—it is the same standard as when a patient is physically present in your office. There is little legal precedent on telepsychiatry. To date, the state boards of medical examiners have indicated that the standard of care rests at the patient site (local standard of care).
- **Licensure:** Most states require that the telepsychiatrist be licensed in both the jurisdiction where the patient is located at the time care is provided and in the telepsychiatrist's own state (if different from the patient's). All psychiatrists practicing telepsychiatry should familiarize themselves with state laws in *both* jurisdictions pertaining to providing care as laws often vary on issues such as prescribing, reporting child endangerment, participation in the civil commitment process, and supervision/collaboration with other providers.
- **Privacy:** Regulations under the Health Insurance Portability and Accountability Act (HIPAA) must be observed, as well as additional state regulations protecting patient privacy. Ensure the telemedicine system that you are using is HIPAA compliant. Many of the popular, free videoconferencing platforms are *not* HIPAA compliant (for example, Skype and Facetime). Additionally, under HIPAA, "Business Associate Agreements" may need to be in place when using third-party applications and services.
- **Security:** Protocols concerning network and software security to protect privacy and confidentiality and user accessibility and authentication should be in place. Measures to safeguard data against intentional and unintentional disclosure should be implemented for both storage and transmission of data.
- **Safety:** It is important to consider whether a patient is an appropriate candidate for telepsychiatry. Ensure that there are emergency plans in place should the patient need assistance.
- **Obtain Informed Consent:** Informed consent should be discussed and documented. Inform the patient of potential risks and benefits and give him or her the option of not participating in telepsychiatry. In the event that the patient elects not to participate in telepsychiatry, it is important that he is aware that care will not be withheld.
- **Documentation:** Be sure to thoroughly document the telepsychiatry session. Further, the medical records should be maintained in a similar manner to that of traditional psychiatric encounters. However, some additional aspects of the telepsychiatry session should be documented including the following:
  - Location of psychiatrist and patient
  - Who was present during the session and their roles
  - Type of equipment used, including any malfunctions that may have occurred
  - Poor transmission quality, if applicable

When practicing telepsychiatry, keep in mind that laws vary among states, and be aware of your jurisdiction's laws as well as the principles of medical ethics. If you have any questions, please consult with an attorney or risk management professional.

For more information on this topic, please see the online risk management course "Risk Management: Overcoming Barriers to Implementation in Telepsychiatry" on APA's Learning Center Risk Management page at http://www.psychiatry.org/psychiatrists/practice/risk-management. PN

Educator Sees Natural Link Between Teaching and Practice of Psychiatry

Good mentoring happens when the mentor makes the encounter about the student and his or her educational and career needs. This is the fourth in a series of profiles of psychiatric educators.

TEACHING PSYCHIATRY

BY MARK MORAN

"There is an enormous and very natural link between education and psychiatry."

So says psychiatric educator Sallie DeGolia, M.D., associate training director for the adult residency program at Stanford University School of Medicine. She is one of a cadre of psychiatrists, vital to the future of the field, who has made education a principal component of her career. And though it is a "road less travelled" by most psychiatrists, for DeGolia the practice of psychiatry and the education of future psychiatrists are more or less seamless endeavors.

"I was primarily interested in psychotherapy, and I feel that education has been a natural outgrowth of that interest," she told *Psychiatric News* in an interview. "It feels very familiar. Psychiatric treatment and especially psychotherapy is about helping someone develop, learn, and identify who they are and how to create a meaningful life.

"Similarly, a lot of what good education is about is relationship," she said. "One of the foundations of education is having a good learning environment, and I see that as analogous to building a good therapeutic alliance with a patient. As in therapy, a good teacher connects with students to understand where they are, what they need, and how to help them get to where they need to go in the most efficient way."

In almost 10 years as associate training director, she has earned the respect of leadership in the department and among fellow faculty and residents. In comments to *Psychiatric News*, Laura Roberts, M.D., chair of the Department of Psychiatry at Stanford, and colleagues cited DeGolia's outstanding teaching in multiple settings as a clinical supervisor and didactic teacher, noting that she has brought special expertise to the department in time-limited dynamic psychotherapy. She has designed a range of highly effective innovative curricula, including international clinical rotations, and has spearheaded the use of the so-called "flipped classroom." (The latter refers to the new trend toward providing online and other learning materials prior to didactic seminars to allow for a more interactive partnership between teachers and learners.)

Sallie DeGolia, M.D.

Sallie DeGolia, M.D., has worked to create venues where trainees at Stanford can meet mentors in fields they are interested in pursuing.

Of particular note, DeGolia was selected to participate in the Stanford Advanced Leadership Development Program and is the associate chair of the Psychiatry Educational Leadership Integration Committee at Stanford.

"One has to meet Sallie to appreciate her enthusiasm for medical education, carefully thought-out plans, and caring nature," Roberts said. "These and other qualities make her a wonderful role model and mentor for our residents and have allowed her to rise up in our education leadership team."

Residency Education Is a Career

As with other educators who have spoken to *Psychiatric News*, teaching for DeGolia was not a career path she intentionally sought out. "It was never very clear in my mind that an educator is what I would become," she said. "But I remember when I was a PGY-2 resident, a supervisor said to me, 'Sallie, you're a natural teacher.' I never considered myself in that role, but the comment stayed with me.

"As chief resident at Stanford, I loved teaching," she continued. "And beyond teaching, I loved developing programs and curricula—helping to identify what the learners needed to learn. That's the area where I came to realize I had a fit and something to offer."

Following residency, DeGolia supervised residents in the mood disorders clinic and then went into private practice, but she was called back to the department at Stanford to become associate training director in 2006. She credits a facilitator-training course in clinical teaching at the Stanford Faculty Development Center with deepening her interest in education. "These were some of the finest educators who really taught me the art and the elements of excellent teaching."

> "One of the foundations of education is having a good learning environment, and I see that as analogous to building a good therapeutic alliance with a patient."

Today, DeGolia says she is primarily focused on curriculum development, working with faculty to improve programs and to develop strategies to meet gaps in education and the needs of training 21st century psychiatrists. She is helping to develop a global health program in the department and chaired a committee of diverse faculty members to create a more effective teaching environment within the department.

As a psychotherapist, DeGolia has also made it a goal of hers to elevate the psychotherapy component of education at Stanford. "Historically we have been a biologically oriented program, and our residents come out of training very competent in psychopharmacology," she said. "Though we have always taught psychotherapy, it's been overshadowed.

"Even if young psychiatrists don't pursue psychotherapy in their careers, I believe it is something we add to medicine that is so vital—our psychological understanding of our patients. I don't want us to lose that capacity. So we've enhanced our didactics in psychotherapy and provide a variety of clinical opportunities for residents to do psychotherapy. I think we have a very balanced program today."

Residents Find Mentors at "Meet the Faculty"

Mentorship is an area of special concern to DeGolia. "I never really felt like I had a mentor that I was able to go to in training on a consistent basis," she said. "Mentors are hugely important in terms of helping trainees think about their career goals and how to realize them. Having a trusted mentor can make all the difference."

So she has worked to create venues in which residents can meet potential mentors. DeGolia has initiated quarterly "Meet the Faculty" educational events where Stanford faculty with expertise in a given topic participate in an informal dinner with a few interested residents to discuss a career in that area. Stanford's residency program also allows residents to explore their interests and potential career paths through scholarly concentration time in their second through fourth years. During this time, trainees are able to work on research or a variety of clinical, educational, or other projects they develop with an advisor.

"We encourage residents to take up something they are really interested in," she said. "The program allows us to connect the residents with advisors who specialize in their area of interest and who may become a mentor down the line."

DeGolia is also working to develop a more deliberate, intentional mentoring program within the department by surveying faculty and linking identified mentors with mentees. Also, she hopes to develop near-peer mentoring relationships between residents and medical students at Stanford—an initiative that may pay off not only by helping medical students better understand the field of psychiatry but also by potentially attracting more students to a career in psychiatry.

So what makes a good mentor and a good mentor-mentee experience?

"It's about relationship," she said. "A mentor needs to be someone who can listen and be genuinely interested in the mentee and what the mentee needs. I think sometimes when a mentoring relationship goes poorly, it's because the encounter may focus more on the mentor's needs rather than the student's. Mentoring takes time. The mentor really needs to hear the mentee and help that individual student figure out what is best for him or her." PN

CLINICAL & RESEARCH NEWS

Four *AJP* Articles Top 'Importance' List Of *NEJM Journal Watch Psychiatry*

AJP Editor Robert Freedman, M.D., said that this recognition reinforces the journal's position as the publisher of major studies that inform and advance the clinical practice of psychiatry.

BY NICK ZAGORSKI

At the end of each year, *NEJM Journal Watch Psychiatry* releases a list of the 10 most clinically important research articles in a variety of medical disciplines, including psychiatry. For the 2015 edition, the *American Journal of Psychiatry* (*AJP*) led the field with four selections, while no other journal featured more than one study in the top 10.

While this is a notable accomplishment, it should also be pointed out that this is not a new phenomenon; 2015 represents the fourth straight year that *AJP* was the most cited journal by the *NEJM Journal Watch Psychiatry* editors who select the year's top stories.

"The predominance of *AJP* in this top-10 list reinforces that this journal publishes landmark studies that inform and advance the clinical practice of psychiatry, as well as those that provide direction for future discoveries and advances," said *AJP* Editor Robert Freedman, M.D., a professor and chair of the Department of Psychiatry at the University of Colorado Anschultz Medical Campus.

"We are honored to once again be highly recognized by *NEJM Journal Watch Psychiatry,* and we hope this distinction will encourage both readers and potential authors to continue to see *AJP* as the definitive source for mental health research."

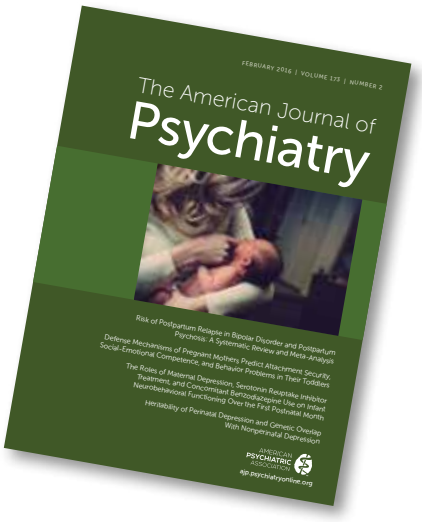
Freedman noted that the four articles cited in the top 10 list showcase the breadth of research covered in *AJP*:

- *Citalopram, Methylphenidate, or Their Combination in Geriatric Depression: A Randomized, Double-Blind, Placebo-Controlled Trial* (June 2015)

Helen Lavretsky, M.D., and colleagues found that combining citalopram with methylphenidate improved the response of geriatric patients with depression.

http://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2014.14070889

- *Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program* (October 20, 2015; Epub ahead of print)



John Kane, M.D., and colleagues described the effectiveness of NAVIGATE—a multifaceted, specialty-care program that combines personalized medication management, resilience-based behavioral therapy, family psychoeducation, and support for employment and education—at improving functional and clinical outcomes after first-episode psychosis (*Psychiatric News,* November 20, 2015).

http://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2015.15050632

- *Is Adult ADHD a Childhood-Onset Neurodevelopmental Disorder? Evidence From a Four-Decade Longitudinal Cohort Study* (October 2015)

Terrie Moffitt, M.D., and colleagues provided new evidence related to the issue of adult-onset attention-deficit/hyperactivity disorder (ADHD). Their analysis found that adults with ADHD do not share many of the neuropsychiatric characteristics of childhood ADHD and frequently have no childhood history of the disorder (*Psychiatric News,* July 3, 2015).

http://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2015.14101266

- *Risk of Postpartum Relapse in Bipolar Disorder and Postpartum Psychosis: A Systematic Review and Meta-Analysis* (October 30, 2015; Epub ahead of print)

Richard Wesseloo, M.D., and colleagues carried out a meta-analysis that found a higher risk of postpartum relapse in women with a previous history of postpartum psychosis than those with a history of bipolar disorder. The study also found that patients with bipolar disorder appear to benefit from receiving medication during pregnancy and after delivery, as do patients with histories of postpartum psychosis who receive lithium following delivery.

http://ajp.psychiatryonline.org/doi/10.1176/appi.ajp.2015.15010124 PN

The list of the top 10 psychiatry articles from 2015 as selected by *NEJM Journal Watch Psychiatry* is posted at http://www.jwatch.org/na39791/2015/12/28/nejm-journal-watch-psychiatry-top-stories-2015.

FROM THE EXPERTS

The Psychiatric Interview Today

BY PETER J. BUCKLEY, M.D.

Since the inception of psychiatry as a formal clinical discipline in the 19th century, the psychiatric interview has been, and remains, an essential and critical element in its practice. The careful psychologically sensitive interview is psychiatry's main diagnostic instrument carrying therapeutic import in the manner of conduct and the delineation of effective future treatment.

From its beginnings, there has been a tension between the need for comprehensive data collection and the empathic engagement with the patient. The creation of an interactive dialogue between clinician and patient and awareness of its emotional currents that facilitate the emergence of pertinent clinical material and that obviate the patient's feeling like a "specimen" under the scrutiny of a "pathologist" of the mind is the sine qua non of the well-conducted interview. The interview is a human interaction—a relationship—and the paternalistic dogma that once permeated its conduct is now, or should be, an artifact of the past. In my opinion, this is the most profound change that has occurred in the nature of the psychiatric interview. Today no matter what the degree of pathology, the psychiatric interview is recognized as an exchange between two people of equal status.

Psychiatry has undergone revolutionary changes in the past 40 years: the refinement of phenomenological diagnoses embodied in *DSM-III* and subsequent *DSM* revisions, an increasing and ongoing biological knowledge base for understanding the somatic origins of mental illness and effective pharmacological treatments, the expansion of psychodynamic thinking beyond ego psychology to incorporate differing theoretical perspectives, and a dramatic and progressive shift in sociocultural attitudes toward the clinician-patient relationship. All these changes in the discipline and culture of psychiatry inform the psychiatric interview today.

The advent and continued development of *DSM* has emphasized descriptive phenomenological approaches to psychopathology and, unfortunately, sometimes encourages a psychiatric interview that is overly focused on describing symptoms and establishing diagnoses rather than learning about the patient and his/her problems, illnesses, and life. As an example, while advances in biological psychiatry have definitively established that schizophrenia is a "brain disease" and neurodevelopmental disorder, there persists a diminution in the attention given to the subjective experiences of individual psychotic patients. Since psychosis can be

see ***Experts*** *on page 21*

Peter J. Buckley, M.D., is a professor of psychiatry and behavioral sciences at the Albert Einstein College of Medicine of Yeshiva University and emeritus director of residency training in psychiatry at Montefiore Medical Center. He is the co-editor of *The Psychiatric Interview in Clinical Practice, Third Edition,* which APA members can purchase at a discount at https://www.appi.org/Course/Book/Subscription/JournalSubscription/id-3441/The_Psychiatric_Interview_in_Clinical_Practice.

CLINICAL & RESEARCH NEWS

Antipsychotic Withdrawal After FEP Recovery Linked to Relapse

First-episode treatment programs should establish a medication-withdrawal strategy with systematic follow-up for patients inclined to discontinue medication, researchers say.

BY MARK MORAN

Antipsychotic discontinuation following functional recovery in patients after a first episode of psychosis (FEP) appears to be associated with a very high rate of relapse compared with those who maintain antipsychotic treatment, according to a report in the *Journal of Clinical Psychiatry* (December 8, 2015).

Moreover, the time to relapse was faster for those who discontinued medication compared with those who relapsed on maintenance treatment, wrote researchers at the University of Cantabria, Spain.

"In clinical practice, physicians very often face the dilemma of discontinuing or maintaining antipsychotics in those patients who have fully recovered from their initial episode of psychosis," they wrote. "In those individuals who are willing to discontinue medication, a planned medication withdrawal strategy with follow-up should be established to prevent unrestrained treatment disengagement. Clinicians should provide accurate information to patients and relatives concerning the risks and benefits of withdrawing medication."

Study participants were drawn from an ongoing longitudinal intervention study for FEP in Spain. Inclusion criteria for the study were receiving 18 months of treatment with antipsychotics, meeting clinical remission criteria for 12 months and functional recovery criteria for six months, and being stabilized on the lowest antipsychotic dose for three months. A total of 46 individuals opted to discontinue medication, and 22 remained on maintenance medication; the primary outcome measures were relapse rate at 18 and 36 months and time to relapse.

In the discontinuation group, 31 patients (27 relapses and four cases of deterioration in symptoms) relapsed. In contrast, among patients in the maintenance group, just seven patients relapsed over the three-year period. The average time to relapse in the maintenance group was 608 days compared with 209 days for those who relapsed in the discontinuation group.

"[T]he rate of symptom recurrence in functionally recovered FEP patients following the self-elected discontinuation of treatment is extremely high," the researchers stated. "Relapsed individuals had a greater severity of symptoms and lower functionality [during the three-year follow-up period] compared with those patients who did not relapse during the follow-up." PN

"Clinical Outcome After Antipsychotic Treatment Discontinuation in Functionally Recovered First-Episode Nonaffective Psychosis Individuals: A 3-Year Naturalistic Follow-Up Study" is posted at http://www.psychiatrist.com/JCP/article/Pages/2015/aheadofprint/14m09540.aspx.

Comments Sought on Reclassification of ECT Devices

The FDA is proposing new guidance for the regulation of ECT devices that could affect the clinical practice of ECT and its availability. The deadline for public comments on the draft guidance is **March 28**. The APA Task Force on ECT has prepared a summary of the draft guidance (including how to contact the FDA and the link to the FDA draft guidance), which is posted at psychiatry.org/ECT. The FDA takes public comments very seriously, so even a brief communication is valuable.

VIEWPOINTS

The Inconvenient Truth About MRI in Psychiatric Research

BY DANIEL WEINBERGER, M.D., AND EUGENIA RADULESCU, M.D., PH.D.

At the turn of the 20th century, there was considerable debate among psychiatrists about whether mental illnesses were actually brain disorders—a debate that continues even today. In the hope of identifying anatomical differences associated with these conditions, researchers spent decades performing microscopic examinations of postmortem brains. Many findings were reported, but none withstood the test of time and more critical analyses of the subject.

Today, the opportunity to examine the living brain with increasingly accessible new technologies has re-ignited the enthusiasm to identify neuroanatomical differences between the brains of those with and without psychiatric disorders.

It is almost impossible nowadays to pick up a psychiatric journal and not see a study that reports differences in magnetic resonance imaging (MRI) measurements between psychiatric patients and

healthy subjects. And, it seems as if all mental disorders—and even behavioral variants within the limits of "normality"—are associated with what appear to be structural changes on MRI.

Unsurprisingly, severe, disabling mental disorders (for example, schizophrenia, autism) have been scrutinized in many studies with various MRI techniques in the hope of finding differences capable of decisively contributing to prevention and early diagnosis. As it happens, schizophrenia, for instance, shows widespread reductions in cortical measurements, which often are found to get worse over time. These various findings are routinely referred to in the literature as "cortical thinning," "atrophy," "tissue loss," or worse, and they are assumed to be insights into the underlying nature of these conditions.

Notwithstanding the likelihood of a biological basis for mental disorders, can we truly conclude that MRI findings are unquestionable reflections of changes in the brain related to pathogenesis?

After a closer analysis of the widespread MRI techniques and several of their limitations, we believe that the answer is no. By perpetuating from study to study the uncritical instantiation of findings potentially representing fallacies of all sorts, there is a serious risk of misinforming our colleagues and our patients about biological abnormalities associated with psychiatric illness.

Here, we offer the inconvenient perspective that various confounders, epiphenomena, and artifacts are equally plausible interpretations of these findings.

Many Factors May Alter MRI Signals

When evaluating claims of anatomical differences in comparison samples based on MRI measurements, you need to recall what MRI actually is.

MRI is not a direct measure of brain structure. MRI is a physical-chemical measure, based on radio-frequency signals emitted from energized hydrogen atoms influenced by the magnetic properties of the microenvironment of surrounding tissue. As such, MRI signals are susceptible to many physical-chemical phenomena not necessarily related to the number or architecture of the cells in the tissue.

Variation in MRI signals and anatomical measurements have been reported for a vast array of nonstructural factors, including common psychotropic drug use, changes in body weight, blood lipid levels, alcohol use, nicotine use, cannabis use, exercise, hydration, pain, cortisol levels, change in brain perfusion associated with acute drug administration, and, finally, an individual's motion during scanning—even motion that is imperceptible (for example, breathing).

While it is unclear how each of these factors specifically affects the MRI signal, it is likely that they alter the biochemistry and thus the magnetic properties of the tissue rather than the number or basic structure of cells.

Thus, before concluding that MRI differences between a patient sample

see ***Viewpoints*** *on page 27*

Daniel Weinberger, M.D., is the director and CEO of the Lieber Institute for Brain Development in Baltimore and a professor of psychiatry, neurology, neuroscience, and genetics at Johns Hopkins University School of Medicine. Eugenia Radulescu, M.D., Ph.D., is a research scholar at the Lieber Institute.

CLINICAL & RESEARCH NEWS

Maternal Infection, Later Childhood Infection Linked to Psychosis in Offspring

Maternal infection during pregnancy did not increase risk for psychosis in offspring when adjusted for confounding variables, but among mothers with psychiatric illness, maternal infection and later childhood infection did increase risk.

BY MARK MORAN

Maternal psychiatric disorders and maternal infection during pregnancy appear to act synergistically with exposure to later childhood infection in offspring by increasing the risk of psychosis in those offspring, according to a report in the January *Schizophrenia Bulletin*.

The study from a large Swedish birth cohort found that maternal infection alone during pregnancy was not statistically significantly linked to psychosis in offspring. But among mothers with a history of psychiatric illness, infection during pregnancy appeared to contribute to the risk of later childhood infections in offspring and to higher risk of psychosis in those offspring, according to the report.

"A genetic predisposition to psychosis in conjunction with one or more environmental insults has been proposed in the etiology of psychosis," wrote researchers from the Karolinska Institute in Stockholm. "We found evidence for synergism between maternal psychiatric disorder (a proxy marker of genetic predisposition in the mother as well as the child) and infection during pregnancy on psychosis risk in the offspring, which is in agreement with previous observations. … Importantly, exposure to maternal infection did not appear to interact with paternal psychiatric disorder (a proxy for genetic predisposition in the father as well as the child). … These results indicate an effect of acute infections during pregnancy specific to vulnerable mothers on the risk for the offspring to later develop nonaffective psychosis."

The study drew on data from several national registries uniquely accessible in Sweden. These include Psychiatry Sweden, which links several health and population registers created for studies of the etiology of psychiatric disorders; the National Patient Register, which was used for identification of infection and nonaffective psychoses and includes virtually all inpatient care in Sweden since 1973 and psychiatric outpatient visits since 2001; and the Medical Birth Register, which includes data from the prenatal, delivery, and neonatal periods from almost all deliveries in Sweden.

The researchers used statistical analysis to examine several different possible associations with psychosis in offspring whose parents did or did not have psychiatric illness—the link between exposure to maternal infection during pregnancy and psychosis, between exposure to maternal infection and later childhood infection, and between combined exposure to maternal infection during pregnancy and later childhood infection and risk for psychosis.

In the total population, there was a small but significantly increased risk of developing nonaffective psychosis among children whose mothers were hospitalized for infection during pregnancy, but this association disappeared when adjusted for confounding vari-

CLINICAL & RESEARCH NEWS

ables. In contrast, among individuals whose parents were diagnosed with a psychiatric disorder, exposure to maternal infection during pregnancy was significantly associated with psychosis; further, there was an interaction between maternal infection during pregnancy and childhood infection in terms of the risk of nonaffective psychosis.

Research interest in a possible link between schizophrenia and viruses and infection, once strictly outside the mainstream, has become an important and seriously regarded line of inquiry. The January issue of *Schizophenia Bulletin* also has two other articles studying the relationship between infection and schizophrenia.

The authors of the current paper noted that many of the genetic loci that so far have been associated with schizophrenia are located within the major histocompatibility (MHC) region on chromosome 6, a region dense with genes linked to both immunity and brain development.

"Interestingly, genetic risk for schizophrenia, both within and outside the MHC region, appears to overlap with risk for other psychiatric diagnoses, which suggests that genetic variation in many regions, including the MHC region, may explain some of the interaction between maternal psychiatric disease and infection."

They added that brain development proceeds through early adulthood and is therefore potentially continuously vulnerable to disruptive influences that may be more likely to occur in individuals with immune deficits.

"Here we observed that individuals whose mothers were exposed to infections before and, particularly, during pregnancy were themselves more likely to be hospitalized for infections during childhood," they stated. "Importantly, exposure to maternal infection during … pregnancy and to a subsequent childhood infection acted synergistically on future psychosis risk. These observations indicate that maternal infection during pregnancy can modify not only the future risk of the offspring to be hospitalized for infection, but also the long-term outcomes of such infections." PN

"Associations Between Maternal Infection During Pregnancy, Childhood Infections, and the Risk of Subsequent Psychotic Disorder—A Swedish Cohort Study of Nearly 2 Million Individuals" is posted at http://schizophreniabulletin.oxfordjournals.org/content/42/1/125.abstract.

Experts

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expressed only through the personality of the individual patient, that person's personal history and character structure determine many aspects of the psychotic "experience" and should be recognized and addressed.

We now know that the subjective experience of being "different" is universal, and the psychiatric interview today should recognize and explore that experience, validating its existence and its universality as we attempt to understand how it influences the patient's life.

The psychiatric interview engages the clinician in a spoken dialogue with the patient. In that sense, it is about "voice" and its interplay—the vocalist and the response of the listener. Notwithstanding the need to conduct a careful mental status examination, elucidate symptomatology, establish a diagnosis, and so on, the sophisticated psychiatric interview today involves hearing the "music" in the interchange between clinician and patient. Learning through practice, supervision, and clinical experience to "hear the music" is central to the identity and professional competence of the psychiatrist. PN

CLINICAL & RESEARCH NEWS

High-Dose Benzodiazepines May Increase Risk of Death in Schizophrenia Patients

Use of antipsychotics or antidepressants was associated with overall mortality rates 15 to 40 percent lower compared with no use of these medications.

BY MARK MORAN

Chronic, high-dose use of benzodiazepines among patients with schizophrenia appears to be associated with a markedly higher overall mortality rate than is seen in patients with schizophrenia who have not been exposed to benzodiazepines, according to a report in *AJP in Advance* (December 7, 2015).

The report also found a lower overall mortality rate among patients with schizophrenia who received antipsychotics and/or antidepressants.

"The results indicate that any amount of antipsychotic and antidepressant usage is associated with overall mortality rates 15 percent to 40 percent lower compared with no use of these medications," wrote study authors Jari Tiihonen, M.D., Ph.D., and colleagues at the Karolinska Institutet in Stockholm. "In contrast, benzodiazepine exposure revealed a clear dose-response curve for mortality, where high exposure was associated with a 70 percent higher risk of death compared with no use."

The authors prospectively compared all-cause and cause-specific mortality in individuals aged 16 to 65 who had been diagnosed with schizophrenia (N=21,492) in Sweden. All-cause and cause-specific mortality rates were calculated as a function of cumulative low, moderate, and high exposure to antipsychotics, antidepressants, and benzodiazepines from 2006 through 2010. The cohort participants were identified from two nationwide Swedish health care registers.

Compared with 214,670 age- and gender-matched persons from the general population, the mortality of the cohort with schizophrenia was 4.8-fold higher. The most common specific cause of death was cardiovascular disease (32.7 percent), followed by neoplasms (16.5 percent), respiratory diseases (11.0 percent), and suicide (9.5 percent).

Any degree of exposure to antipsychotics or antidepressants was associated with a lower overall mortality compared with no use. The opposite was observed for benzodiazepines, and high exposure was associated with a 74 percent higher risk of death compared with no use.

"The association between benzodiazepine exposure and mortality may be explained by several mechanisms," the authors noted. "Although long-term benzodiazepine use may be a marker for more severe illness and coexisting substance abuse, it is also plausible to assume that prescribing of high doses for long periods may lead to tolerance and dose escalation. This could result in fatal interactions with concurrent use of alcohol and illicit drugs, and worsening of polysubstance dependence may result in a less healthy lifestyle in general. In addition, high-dose benzodiazepine use may also contribute to daytime sedation and proneness to accidents."

Although adverse events associated with antipsychotics have received considerable attention, the study authors emphasized that their findings suggest that patients on high doses of benzodiazepines should be monitored closely.

"It is important to realize that although monitoring of patients with moderate- or high-dose antipsychotic treatment is relevant, it is essential to focus the preventive interventions on those patients who have an even higher risk of death, that is, patients not using antipsychotics and patients using high doses of benzodiazepines," they wrote.

AJP Editor Robert Freedman, M.D., cautioned that the study is not necessarily an indictment of benzodiazepines and noted that high-dose use among people with schizophrenia appears to be more common in Sweden than in the United States. "Dr. Tiihonen and colleagues fulfill the maxim that great epidemiologists raise more questions than they answer," he told *Psychiatric News*. "As the authors of the study point out, regular benzodiazepine use in addition to antipsychotics likely indexes a more severely ill group of patients.

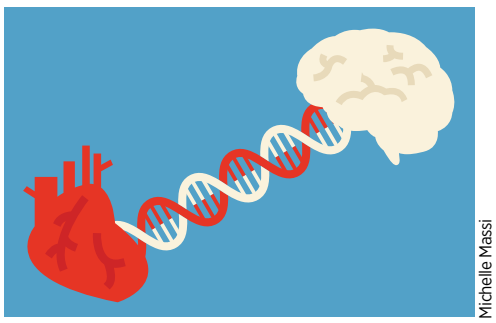
"The message for clinicians is that use of benzodiazepines to avoid the toxicity of antipsychotics seems to have its own problematic consequences," Freedman continued. "A second message is that Tiihonen and colleagues found that antidepressant use decreases mortality and should be considered as a beneficial therapeutic addition for schizophrenia."

This research was supported by Karolinska Institutet, Niuvanniemi Hospital in Kuopio, Finland, and the Sigrid Juselius Foundation. PN

"Mortality and Cumulative Exposure to Antipsychotics, Antidepressants, and Benzodiazepines in Patients With Schizophrenia: An Observational Follow-Up Study" is posted at http://ajp.psychiatryonline.org/doi/full/10.1176/appi.ajp.2015.15050618.

Acquired Mutations Link Congenital Heart Disease, Neurodevelopmental Disorders

About 20 percent of children with severe congenital heart disease have an excess of mutations that are also commonly found in children with developmental problems such as autism.



Michelle Massi

BY NICK ZAGORSKI

A study published December 4 in *Science* suggests that neurodevelopmental abnormalities in children with congenital heart disease may arise from the acquisition of harmful de novo gene mutations. These are not inherited but rather spontaneously occur during fetal development. These abnormalities include cognitive, motor, social, and language impairments.

"Finding this strong association between the developing heart and brain was a bit surprising, for while the heart and brain are both complex organs, they do separate early in the development process," said study coauthor Jonathan Kaltman, M.D., who is the administrator of the National Heart, Lung, and Blood Institute's (NHLBI) Bench to Bassinet Program, which funded this study.

"At the same time, it makes sense clinically, given that there are several inherited disorders such as Down's syndrome or DiGeorge syndrome, which feature both cardiac and neurological problems."

Investigators from the NHLBI's Pediatric Cardiac Genomics Consortium used a technique known as exome sequencing to scan all the protein-encoding regions of the genome in over 1,200 affected family trios (a child with congenital heart disease [CHD] and his or her parents) along with 900 control trios without CHD.

They uncovered almost 400 potentially harmful de novo mutations that significantly contribute to the risk of co-occurring CHD and neurodevelopmental disorders.

While an excess number of these harmful mutations were found in only 2 percent of patients who had isolated CHD, the prevalence rose in children with more complications. The mutations were present in about 10 percent of patients who also had neurodevelopmental disorders or other extracardiac congenital anomalies (such as limb or kidney defects), and 20 percent of patients who had both.

When the researchers compared the genetic data from children with CHD and children with neurodevelopmental disorders but no heart problems, they found 85 mutations were present in both groups—more than twice as many as would be expected by random chance.

"These findings show enough statistical risk of developing neurodevelopmental disabilities when these particular gene mutations are present that we might consider developing a genetic test for patients with CHD," Kaltman told *Psychiatric News*. Such a test could help to identify high-risk children for early interventions that might help to limit developmental delays and improve functioning, he said.

In addition to the NHLBI, this study was supported in part by the National Human Genome Research Institute, the Howard Hughes Medical Institute, and Simons Foundation for Autism Research. PN

An abstract of "De Novo Mutations in Congenital Heart Disease With Neurodevelopmental and Other Congenital Anomalies" is posted at http://www.sciencemag.org/content/350/6265/1262.abstract.

Survey Finds U.S. Teens Continue to Decrease Alcohol, Cigarette Use

The annual survey reveals that teens' perception of marijuana as a "harmful" substance continues to decline, highlighting the need for continued education about the possible long-term effects of the drug.

VABREN WATTS

In December 2015, the National Institute on Drug Abuse (NIDA) released data from its Monitoring the Future survey revealing that U.S. teens are using alcohol, cigarettes, and some illicit drugs less than they did in 2014. Despite this trend, the survey found that youth's use of electronic cigarettes and marijuana remained constant.

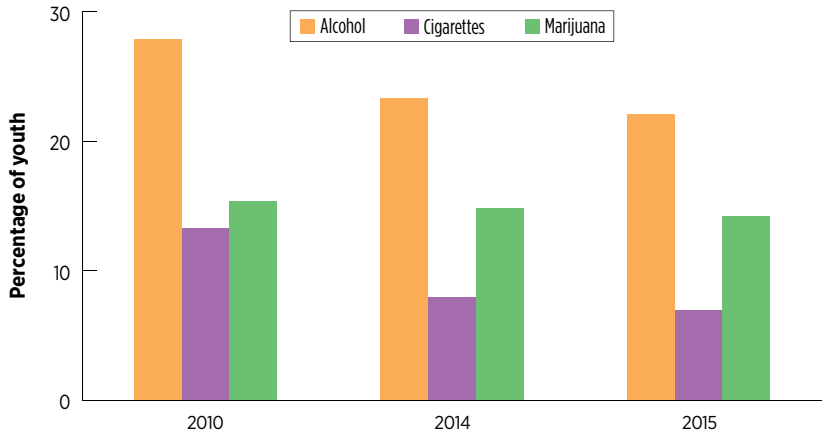
"We are heartened to see that most illicit drug use is not increasing, nonmedical use of prescription opioids is decreasing, and there is improvement in alcohol and cigarette use rates," Nora Volkow, M.D., director of NIDA, said in a statement. "However, continued areas of concern are the high rate of daily marijuana smoking seen among high school students, because of marijuana's potential deleterious effects on the developing brains of teenagers, and the high rates of overall tobacco products and nicotine-containing e-cigarettes usage."

Since 1975, the Monitoring the Future survey has annually asked over 40,000 8th, 10th, and 12th graders across the United States about their use of alcohol, tobacco products, and illicit drugs, as well as their attitude toward such products.

This year's survey, which included 44,892 students from 382 U.S. public and private schools, found that alcohol use by teens declined, with an average of 22.1 percent of those surveyed reporting past-month use of alcohol—down from 23.3 percent in 2014 and 27.9 percent in 2010. Average rates for past-month cigarette use also declined for the three grades combined, dropping from 13.3 percent in 2010 and 8.0 percent in 2014 to 7.0 percent in 2015.

Use of Alcohol and Cigarettes Steadily Drops While Marijuana Use Holds Steady

Between 2010 and 2015, alcohol use and cigarette use, respectively, decreased 20% and 47% among 8th, 10th, and 12th graders, while marijuana use remained unchanged.



Source: 2015 Monitoring the Future Survey, National Institute on Drug Abuse

NIH

Nora Volkow, M.D., says that although overall illicit drug use did not increase from 2014 and 2015, youth's high rates of marijuana use and the increasing popularity of e-cigarettes are of major concern.

Adolescents' use of electronic cigarettes remained relatively stable from 2014 (the first year that youth were surveyed on their use of these products), with 13.2 percent of surveyed participants admitting to having used the products over the past month. When past-month e-cigarettes users were surveyed on the reasons for using the nicotine-vaporizing products, more than

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Obama

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Elementary School in Newtown, Conn., in 2012. Surrounding the president were people who were either family members of victims of gun violence or victims themselves.

"Gun violence is a public health problem and needs to be addressed as such," said APA President Renée Binder, M.D., in a statement. "We welcome the announcement from President Obama to make needed investments in mental health and curb the epidemic of gun violence in our country."

The administration also issued a final rule governing the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to permit certain hospitals and state agencies—but not clinicians—to report individuals under specific circumstances to the National Instant Criminal Background Check System (NICS).

In a letter to members of APA's Board of Trustees and Assembly, APA CEO and Medical Director Saul Levin, M.D., M.P.A., said: "It is APA's sense that the final HIPAA/NICS rule released today is well balanced and addresses our previously articulated major concern regarding the need to preserve privacy, incentivize treatment, and prevent any federal law or regulation that ... would require or permit psychiatrists to report their patients directly to NICS or any other federal database."

Less clear at present are the implications of a proposal to include in the background check system information from the Social Security Administration (SSA) about individuals "who have a documented mental health issue, receive disability benefits, and are unable to manage those benefits because of their mental impairment or who have been found by a state or federal court to be legally incompetent."

APA's formal position on the use of such information awaits the release of rules to be issued by the SSA. However, the proposal has raised concern from one forensic psychiatrist.

"There is no evidence that this group of people is at any higher risk of violence," said Liza Gold, M.D., a clinical professor of psychiatry at the Georgetown University School of Medicine in Washington, D.C., and co-editor of the new book *Gun Violence and Mental Illness* from American Psychiatric Association Publishing.

Gold applauded the president's commitment to allocate more funds for mental health care. However, lumping all people with mental illness into one category and assuming they are dangerous is a problem, she said in an interview.

"This unfortunately perpetuates the widespread misperception that people with serious mental illness are violent and are responsible for the problem of gun violence," said Gold. "I believe that mental health prohibitions to owning firearms should be based on research evidence demonstrating increased risk. These prohibitions don't do what they are supposed to do, and they only reinforce stigma and negative stereotypes."

The president has included funds for such research in his recent budget proposals, but Congress, pressured by the gun lobby, has refused to allocate the money.

Overturning the congressional ban on firearms injury research by the Centers for Disease Control and Prevention is "desperately needed," but that has proved politically difficult, said Gold. PN

A fact sheet on Obama's executive actions is posted at https://www.whitehouse.gov/the-press-office/2016/01/04/fact-sheet-new-executive-actions-reduce-gun-violence-and-make-our. The final HIPAA rule is posted at https://s3.amazonaws.com/public-inspection.federalregister.gov/2015-33181.pdf. APA members may purchase *Gun Violence and Mental Illness* at a discount at https://www.appi.org/Course/Book/Subscription/JournalSubscription/id-3385/Gun_Violence_and_Mental_Illness.

CLINICAL & RESEARCH NEWS

Automated Speech Analysis May Identify People With Alzheimer's Disease

A set of 35 subtle impairments in semantics, acoustics, syntax, and descriptive clarity can differentiate people with possible Alzheimer's compared with matched controls with over 80 percent accuracy.

NICK ZAGORSKI

Alzheimer's disease affects cognition and memory, and those deficiencies readily manifest themselves in the way that someone speaks and writes. For years now, researchers have been examining how language might be used to identify or predict Alzheimer's or other types of dementia.

One effort known as the Nuns Study, which was started in 1990, examined the written biographies of women who had joined a convent and found that the complexity of the writing was a strong indicator of who might develop dementia later in life. More recently, in 2009, a pair of researchers at the University of Toronto analyzed Agatha Christie's novels and found changes in syntax and complexity that supported the belief that she had Alzheimer's.

Of course, not everyone has a literary trove that can be used to help make a diagnosis of Alzheimer's, but with recent technological advancements, that may no longer be necessary.

A report published October 15 in the *Journal of Alzheimer's Disease* found that language-processing software can differentiate people with Alzheimer's from healthy subjects using only a short segment of language.

One hundred and sixty-seven patients diagnosed with "possible" or "probable" Alzheimer's and 97 healthy controls were tasked with describing the same picture, and their narratives—which averaged a little over 100 words and included both audio and transcribed files—were then analyzed by a comprehensive software program that examined 370 distinct elements of speech.

On the basis of subtle differences in language, the program was able to accurately differentiate subjects in the two groups, reaching a maximum accuracy of about 82 percent when using a set of 35 speech features.

These 35 differences primarily clustered in four distinct categories: semantic impairment (using overly simple words), acoustic impairment (speaking very slowly), syntax impairment (using less complex grammar), and information impairment (not clearly identifying the main aspects of the picture).

"The importance of acoustics was intriguing and somewhat unanticipated," said study coauthor Frank Rudzicz, Ph.D., an assistant professor of computer science at the University of Toronto (who trained under Graeme Hirst, one of the Agatha Christie researchers). "But it shows how new technologies can build on earlier research and help us develop more accurate and cost-effective diagnostic tools."

Rudzicz, who carried out this research along with University of Toronto colleagues Katie Fraser, a Ph.D. student, and Jed Meltzer, Ph.D., told *Psychiatric News* that he envisions that someday this software could be a publicly available tool that people could use to self-diagnose any potential dementia risk, which would then be a basis for a more comprehensive clinical evaluation.

"The current tests needed to clinically evaluate someone for dementia are pretty rigorous and can take almost an entire day, so it's not feasible for physicians to conduct these on all their patients on a regular basis," he said.

Even as he explores the commercial potential, though, he sees more research potential as well.

"The relative speed and ease of analyzing the language data can enable us to closely study longitudinal changes in the brain," he said. "Many other studies may take data from a patient only once or they come back one year later. But everyone has good days and bad days, and often a participant's performance on a given test on a given day is not a true indicator of his or her disease state."

Using the automated software can be akin to using the snap feature on cameras that take several continuous shots. A patient recites a narrative at periodic intervals over the course of weeks or months, and the software paints a detailed "photo" of the patient's cognitive state.

University of Toronto

Frank Rudzicz, Ph.D., says that someday people may be able to use the language recognition program developed by him and his colleagues to decide whether they need a comprehensive clinical evaluation.

"This is a well-done study that included a large number of patients and considered a wide range of speech variables," said Cheryl Corcoran, M.D., an assistant professor of clinical psychiatry at Columbia University. She is part of a research team that recently demonstrated the ability of language recognition software to differentiate at-risk individuals who developed psychosis versus those who did not (November 6, 2015).

"Interestingly, there was overlap in key speech parameters with our prognostic study, in that both semantic and syntactic impairment are common in schizophrenia and Alzheimer's. Specifically, there is impairment in the ability to maintain a theme throughout discourse, as well as a reduction in syntactic complexity—that is, using shorter sentences and fewer subordinate clauses."

Corcoran said that she was also intrigued by the finding of acoustic impairments as a discriminating factor, and her group hopes to undertake similar acoustic studies shortly using audio files from their high-psychosis-risk cohort.

This study was supported by the Natural Sciences and Engineering Research Council of Canada, the Alzheimer's Association, and Alzheimer Society of Canada. PN

An abstract of "Linguistic Features Identify Alzheimer's Disease in Narrative Speech" is posted at http://content.iospress.com/articles/journal-of-alzheimers-disease/jad150520.

Low-Dose Buprenorphine May Be First Treatment Step

Israeli researchers test a fast-acting way to treat depression or suicidality but include a cautionary note.

BY AARON LEVIN

Short-term use of very low doses of buprenorphine may help to decrease severe suicidal ideation in some patients, but that finding should be interpreted cautiously, Yoram Yovell, M.D., Ph.D., co-director of the Institute for the Study of Affective Neuroscience at the University of Haifa, Israel, and colleagues wrote in a study published December 18 in *AJP in Advance.*

In fact, the work should be considered preliminary, said the researchers, noting that despite buprenorphine's "favorable safety profile, [the medication] is potentially addictive and possibly lethal."

The study was carried out in four medical or psychiatric facilities in Israel between 2010 and 2013. A total of 88 patients (aged 18 to 65) who reported clinically significant suicidal ideation (a score of greater than or equal to 11 on the self-report Beck Scale for Suicide Ideation for at least one week) were randomly assigned to receive sublingual buprenorphine lozenges, starting at 0.1 mg once or twice a day (n=57) or placebo (n=31) for four weeks. Once a week, at the decision of the study psychiatrists, the daily dose could be raised in 0.1 to 0.2 mg increments, to a maximal daily dose of 0.8 mg.

At two weeks and four weeks, scores on the Beck Scale for Suicide Ideation dropped significantly for the patients who received the low-dose buprenorphine (mean final dosage=0.44 mg/day) compared with those taking placebo. For ethical reasons, more than 70 percent of the patients were also using antidepressants, but the effects of buprenorphine on suicidal ideation did not differ between patients who were treated and those who were not.

There was no difference in response between patients with and without borderline personality.

"This finding, if replicated, raises the possibility that ultra-low-dose buprenorphine treatment addresses a subset of affective symptoms—those associated with painful feelings of rejection and abandonment, and that in this dosage range, it is less active against neurovegetative and other symptoms that are more related to reduced hedonic tone," wrote Yovell et al.

Replication trials should add clinician determination of suicidality and depression, they wrote. About 30 percent of patients dropped out in the first week, making unclear whether the results could be extended to "more stable, less suicidal patients."

Yovell also cautioned, "This is a single, time-limited trial of an experimental treatment for suicidal ideation rather than suicidal behavior, and its results do not support the widespread, long-term, or nonexperimental use of buprenorphine for suicidality."

The study was funded by the Hope for Depression Research Foundation of New York, the Neuropsychoanalysis Foundation, and the Institute for the Study of Affective Neuroscience at the University of Haifa.

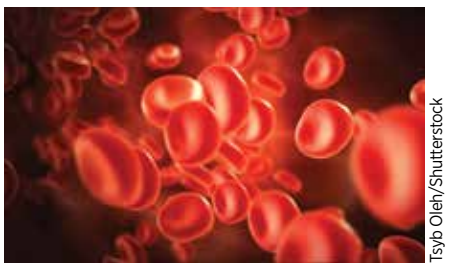
In an accompanying editorial, former APA President Alan Schatzberg, M.D., a leading psychopharmacology researcher and professor of psychiatry at Stanford University School of Medicine, also noted the risks of addiction or diversion of buprenorphine. He drew an analogy about "the abuse liability, long-term risks, and social cost" in the swift adoption by some practitioners of off-label use of ketamine to quickly alleviate symptoms of depression.

"The potential gain of some patients versus the overall societal cost needs to be addressed, and guidelines need to be promulgated for any such use [of buprenorphine]," wrote Schatzberg. "The time has come for the specialty and regulators to begin to formally address the issues associated with the potential off-label use of drugs of potential abuse for severely ill and refractory patients." PN

"Ultra-Low-Dose Buprenorphine as a Time-Limited Treatment for Severe Suicidal Ideation: A Randomized, Controlled Trial" is posted at http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2015.15040535. The accompanying editorial, "Opioids in Psychiatric Disorders: Back to the Future?," is posted at http://ajp.psychiatryonline.org/doi/full/10.1176/appi.ajp.2015.15101354.

JOURNAL DIGEST

BY NICK ZAGORSKI



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Vascular Problems May Increase Psychosis Risk in Alzheimer's

Hallucinations and delusions are a common symptom of Alzheimer's disease, but the pathology that underlies these psychotic symptoms is unclear.

A recent analysis published in the *Journal of Alzheimer's Disease* suggests that cerebrovascular disease—conditions that limit the circulation of blood to the brain—may be a major determinant of psychosis in people with Alzheimer's disease.

A team of researchers analyzed autopsy data from over 1,000 patients from the National Alzheimer's Coordinating Centre database.

Among the 890 patients who had been clinically diagnosed with Alzheimer's while they were alive, those who had developed psychosis showed more cellular signs of Alzheimer's such as excess protein deposits and neurofibrillary tangles. However, this correlation was not evident among the 728 patients who had the disease confirmed by autopsy (Alzheimer's can be confirmed only through an autopsy).

When limiting their analysis to only the confirmed cases of Alzheimer's, the researchers found that vascular and Lewy body pathologies and vascular risk factors, including a history of hypertension and diabetes, were associated with the development of psychosis.

Fischer C, Qian W, Schweizer T, et al. Lewy Bodies, Vascular Risk Factors, and Subcortical Arteriosclerotic Leukoencephalopathy, but not Alzheimer Pathology, Are Associated With Development of Psychosis in Alzheimer's Disease. *J Alzheimers Dis*. Nov 30, 2015. [Epub ahead of print] http://content.iospress.com/articles/journal-of-alzheimers-disease/jad150606

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Exercise Improves Cognition In People With Early Psychosis

Physical activity may help to improve memory and attention in people with early psychosis, according to a study published in *npj Schizophrenia*.

Researchers at the University of Hong Kong and the University of British Columbia randomly assigned 124 women with early psychosis (who were aged 16 to 60 and were stabilized on antipsychotic medications) to one of three groups: one group participated in yoga while another group engaged in aerobic exercise for 12 weeks; the remaining participants were assigned to the waitlist control group.

Compared with the control group, women in both the yoga and exercise groups showed significant improvements in working memory and depressive symptoms after 12 weeks. The yoga group also demonstrated additional improvements in attention and verbal acquisition. These improvements were still evident at follow-up 18 months later.

Given the long-term stability of these improvements, along with the relatively low cost and lack of side effects associated with yoga or exercise, the authors believe that physical activity could be a valuable adjunctive therapy for patients with psychosis.

Lin J, Chan S, Lee H, et al. Aerobic Exercise and Yoga Improve Neurocognitive Function in Women With Early Psychosis. *npj Schizophrenia*. Dec 2, 2015; 1:15047. http://www.nature.com/articles/npjschz201547

Marcos Mesa Sam Wordley/Shutterstock

Little Evidence for Nalmefene As Alcohol-Dependence Therapy

A meta-analysis published in *PLoS Medicine* suggests that there may not be enough published evidence to support the use of the opioid antagonist nalmefene as a therapy for alcohol dependence. Nalmefene was approved by the European Medicines Agency in 2013 for the treatment of alcohol dependence.

The analysis combined five randomized, controlled trials (RCTs) (totaling over 2,500 participants) and found no differences between nalmefene and placebo in several categories—including mortality, quality of life, or quality of mental health—after six months or one year of treatment.

Participants taking nalmefene did have fewer heavy drinking days and lower total alcohol consumption than those taking placebo, but they also had a higher rate of discontinuation from the clinical study. Thus, the reviewers believe attrition bias caused by the high withdrawal rate may explain the differences in alcohol consumption.

"These findings show that there is no high-grade evidence currently available to support the use of nalmefene for harm reduction among people being treated for alcohol dependency," the study authors wrote. "In addition, they provide little evidence to support the use of nalmefene to reduce alcohol consumption in this population" and "highlight the need for further RCTs of nalmefene compared to placebo and naltrexone for the indication specified in the market approval."

Palpacuer C, Laviolle B, Boussageon R, et al. Risks and Benefits of Nalmefene in the Treatment of Adult Alcohol Dependence: A Systematic Literature Review and Meta-Analysis of Published and Unpublished Double-Blind Randomized Controlled Trials. *PLoS Med.* Dec 22, 2015; 12(12):e1001924. http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001924

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Varenicline Can Be Effective in Patients With Recent Heart Attack

Smoking cessation is critically important for smokers who experience an acute coronary syndrome (ACS), yet a majority of smokers hospitalized for ACS fail to kick the habit.

A randomized, controlled trial has now found that starting varenicline therapy while smokers are still in the hospital may offer an effective way to promote cessation.

A total of 302 active smokers with ACS began a 12-week therapy with either varenicline or placebo prior to their discharge; all participants also received low-intensity counseling, during which counselors reminded the study participants of the importance of smoking abstinence following ACS. Abstinence

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Teens

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50 percent reported using the product "out of curiosity," Richard Miech, Ph.D., a research professor in the Survey Research Center at the University of Michigan and a senior investigator of the study, said at a teleconference on the survey findings.

"These results suggest that e-cigarettes are primarily a new way to use recreational substances more so than a means to end tobacco addiction, at least among adolescents," Miech said.

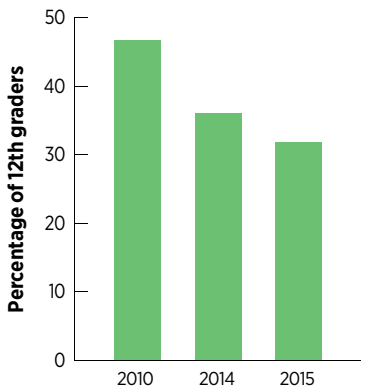
Past-month marijuana use for all youth surveyed in 2015 was 3.4 percent—a percentage that remained unchanged since 2014. However, for the first time in the history of the survey, daily marijuana use exceeded daily tobacco use among 12th graders, with approximately 6 percent reporting past-month, daily use of marijuana compared with 5.5 percent reporting daily use of cigarettes. According to the survey, the perception by 12th graders that marijuana use is risky continues to decline, with 31.9 percent expressing the opinion that regular marijuana use is harmful compared with 36.1 percent in 2014 and 46.8 percent in 2010.

Other major findings highlighted in the NIDA report included downward trends in youth's past-year use of synthetic cannabinoids, MDMA (Ecstasy or Molly), heroin, and prescription opioids. PN

The 2015 Monitoring the Future Survey is posted at http://www.monitoringthefuture.org/.

Perception of Marijuana as Risky Continues to Decline Among 12th Graders

About 15% fewer 12th graders viewed marijuana as risky in 2015 than in 2010.



Source: 2015 Monitoring the Future Survey, National Institute on Drug Abuse

Grant

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within their geographic regions.

Levels one and two will be available to psychiatrists via seven online modules and full-day, in-person training sessions at the 2016 annual meeting and IPS: The Mental Health Services Conference (see box for dates). Level three will be available at the end of 2016, and levels four and five will be available in 2017.

The collaborative care model is a focus of the training because this model has, by far, the largest body of evidence for effectiveness, with more than 80 randomized, controlled trials demonstrating its benefits. Benefits of practicing in the model include greater professional flexibility for psychiatrists as they are able to practice part time in the model and increased access for patients by allowing psychiatrists more time to care for sicker patients.

TCPI is providing 39 national and regional collaborative health care transformation networks and supporting organizations with $685 million to achieve the following aims:

- Support more than 140,000 clinicians in their practice transformation work.
- Build the evidence based on practice transformation so that effective solutions can be scaled.
- Improve health outcomes for millions of Medicare, Medicaid, and Children's Health Insurance Program beneficiaries and other patients.
- Reduce unnecessary hospitalizations for 5 million patients.
- Sustain efficient care delivery by reducing unnecessary testing and procedures.
- Generate $1 billion to $4 billion in savings to the federal government and commercial payers.
- Transition 75 percent of practices completing the program to participate in Alternative Payment Models.

"Supporting doctors and other health care professionals as they change the way they work is critical to improving quality and spending our health care dollars more wisely," said Health and Human Services Secretary Sylvia Burwell in a statement last September when the TCPI award winners were announced.

TCPI supports medical group practices, regional health care systems, regional extension centers, and national medical professional association networks through two components: Practice Transformation Networks (PTNs), which are peer-based learning networks that support clinicians as they work to transform clinical practice; and Support and Alignment Networks (SANs), which include national and regional professional medical associations (such as APA) and public-private partnerships to provide a system for workforce development and practice transformation.

(The TCPI project is supported by Funding Opportunity Number CMS-1L1-15-002 from the U.S. Department of Health and Human Services [HHS], Centers for Medicare and Medicaid Services. The contents provided are solely the responsibility of the authors and do not necessarily represent the official views of HHS or any of its agencies.)

As a SAN, APA will support practice transformation by training psychiatrists in collaborative care in partnership with the AIMS Center at the University of Washington through seven online modules and in-person trainings. Once psychiatrists are trained, APA will help connect them with PTNs within their region. PN

APA's SAN is managed by the APA Division of Policy, Programs, and Partnerships, APA Department of Education, and AIMS Center at the University of Washington. For more information, contact san@psych.org. To register for trainings or learn more about APA's SAN, visit www.psychiatry.org/sansgrant. Connect to the TCPI Knowledge Portal to stay abreast of TCPI activities, access practice transformation resources, and connect with others at http://www.healthcarecommunities.org/Home.aspx.

Get Trained in Collaborative Care

There are two ways psychiatrists can receive training in collaborative care from APA under the grant for the Transforming Clinical Practice Initiative:

- **Online modules—free CME credits (8 total).** Register at http://psychiatry.org/psychiatrists/practice/professional-interests/integrated-care/transforming-clinical-practice-initiative.
- **APA annual meeting—free course with CME credits (8 total).** The course is titled "Integrating Behavioral Health and Primary Care: Practical Skills for the Consulting Psychiatrist." Select one of three full-day training sessions when registering: Sunday, May 15, 9 a.m. to 4 p.m.; Monday, May 16, 9 a.m. to 4 p.m.; and Tuesday, May 17, 9 a.m. to 4 p.m. You must be registered for the annual meeting to register for one of the courses. Registration and other annual meeting information can be accessed at http://www.psychiatry.org/annualmeeting.

CMS to Move Toward Paying for Integration

Proliferation of the collaborative care model into primary care practices has been hampered by the lack of a reimbursement mechanism to pay for the services provided. The Centers for Medicare and Medicaid Services (CMS) announced in July 2015 that it will be moving toward payment for evidence-based collaborative care, such as those models reviewed by the Cochrane Collaboration.

APA will be meeting with CMS officials to provide information on the costs and work associated with those models.

APA anticipates that coverage by CMS for collaborative care services could occur as early as January 1, 2017, through the use of CMS-developed Healthcare Common Procedure Coding System (HCPCS) codes. APA has also developed and recently submitted a CPT coding proposal to the AMA CPT Editorial Panel to create CPT codes describing the service (*Psychiatric News*, October 2, 2015).

Viewpoints

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and a control sample represent microstructural abnormalities of pathogenic significance, one needs to consider also other explanations. While such nonstructural factors may be considered to be "white noise" elements that do not systematically vary from one individual to another in healthy controls, in studies of psychiatric patients, or even in studies of subjects of different ages or other demographic characteristics, these various confounding factors typically vary quite systematically between samples and bias results based on their effects.

For example, patient samples often differ from controls in smoking history, alcohol or cannabis use, exercise, body weight, lipid levels, ongoing stress and thus endogenous corticosteroid levels, medication use, general health, and movement during scanning. Each of these factors will individually and in sum influence the MRI signals and will create differences between groups.

What MRI Can't Tell You

While we cannot offer a formula for deconvoluting these and other concerns from the existing results of MRI studies in psychiatric patients, we propose instead a change of perspective in future MRI research when patient and control samples are directly compared:

- Researchers using structural MRI techniques should remain highly skeptical of the basis of changes that are found in comparisons of patient and control samples and refer to them as "differences in MRI measurements," not as "cortical thinning" or "loss."
- Patient samples should be carefully characterized for potential confounders, especially those mentioned above that tend to be systematically different from controls and that influence MRI measures. These characteristics should be included in a description of the samples.
- Head motion parameters, breathing patterns, and skin conductance measures also should be recorded and included as part of the data of a study so that their potential role can be evaluated.

We have reached a crossroads in neuroimaging studies in psychiatry research. We expect that continuing technological advances based on a more "biological" understanding of the MRI signal will allow a fuller characterization of factors that link MRI signals to brain anatomy and function.

To advance on the path of understanding the pathobiology of mental disorders with these methods, we must be willing to discuss a widely and tacitly recognized—though mostly ignored—"inconvenient" truth: conventional MRI does not allow us to make firm inferences about the primary biology of mental disorders. PN

In "Finding the Elusive Psychiatric 'Lesion' With 21st-Century Neuroanatomy: A Note of Caution," published in *AJP in Advance*, Weinberger and Radulescu describe additional documented systematic confounders in MRI measurements and the future of MRI studies in psychiatry. The review is posted at http://ajp.psychiatryonline.org/doi/full/10.1176/appi.ajp.2015.15060753.

Journal Digest

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was measured using both patient reports and biochemical analysis 24 weeks after the study start.

The participants taking varenicline showed improved smoking habits on several measures. A total of 47.3 percent of the varenicline group was abstinent for at least seven days prior to the 24-week assessment compared with 32.5 percent in the placebo group; 35.8 percent of varenicline users had remained abstinent throughout the 24-week period compared with 25.8 percent of placebo users; and 67.4 percent of varenicline users reduced their smoking levels by at least half by the end of the study compared with 55.6 percent in the placebo group.

Importantly, varenicline use did not result in any increased rates of serious adverse events—including cardiovascular events—in these high-risk patients who had just been hospitalized.

This trial, known as the Evaluation of Varenicline in Smoking Cessation for Patients Post-Acute Coronary Syndrome (EVITA), was presented at the American Heart Association 2015 Scientific Sessions and was also published in *Circulation*.

Eisenberg M, Windle S, Roy N, et al. Varenicline for Smoking Cessation in Hospitalized Patients With Acute Coronary Syndrome. *Circulation*. 2016 Jan 5;133(1):21-30. http://circ.ahajournals.org/content/133/1/21.long

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Animal Study Suggests Rolipram May Alleviate Cognitive Problems Associated With Alzheimer's

The tau protein, which is associated with Alzheimer's disease, may cause its damage by breaking down proteasomes, the waste disposal systems of a cell, reports a study published in *Nature Medicine*.

Using both a mouse model of Alzheimer's disease and cultured brain cells, researchers from Columbia University found that as tau levels increased, there was lower activity of proteasomal enzymes and higher levels of ubiquitinated proteins (proteins tagged for proteasome delivery). These findings suggest that tau helps facilitate the accumulation of toxic proteins that eventually lead to the death of neurons, according to the study authors.

The researchers also found, however, that the medication rolipram (initially designed as an antidepressant) can alleviate some of these problems, suggesting a potential therapeutic target.

Rolipram increases the levels of cyclic AMP, an important metabolite for brain cells and a regulator of proteasomes. Administering rolipram to brain cells with tau buildup improved proteasome activity and reduced the rate of tau accumulation.

When the medication was evaluated in a mouse model of Alzheimer's disease, rolipram improved the cognitive performance of the mice compared with placebo; however, this effect was seen only in younger animals, suggesting that rolipram's effectiveness may be limited to early stages of the disease. PN

Myeku N, Clelland C, Emrani S, et al. Tau-Driven 26S Proteasome Impairment and Cognitive Dysfunction Can Be Prevented Early in Disease by Activating cAMP-PKA Signaling. *Nat Med.* Jan 2016;22(1):46-53. http://www.nature.com/nm/journal/v22/n1/full/nm.4011.html.