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PSYCHIATRIC NEWS

AMERICAN PSYCHIATRIC ASSOCIATION

ISSN 0033-2704

Aaron Levin

Sen. Chris Murphy (D-Conn.; second from right) is the cosponsor of a new Senate bill on mental health reform with Sen. Bill Cassidy (R-La.; right). The legislation looks to expand access to care, enforce parity, and increase the mental health workforce. Joining the senators at a press briefing announcing the introduction of the legislation was APA CEO and Medical Director Saul Levin, M.D., M.P.A. (at podium).

Comprehensive MH Reform Bill Introduced in U.S. Senate

The bill is a companion to the bipartisan bill introduced in the House in June by Reps. Tim Murphy and Eddie Bernice Johnson.

BY AARON LEVIN

A bipartisan pair of U.S. senators introduced on August 4 the Mental Health Reform Act of 2015, intended to expand access to care, enforce parity, and increase the mental health workforce.

The bill is just the latest in a series of legislative proposals that highlight bipartisan support for mental health reform. The new bill, put forth by Sen. Bill Cassidy (R-La.) and Sen. Chris Murphy (D-Conn.), would build inpatient and outpatient capacity, invest in research and dissemination of best practices, and support better coordination of physical and mental health care. It also includes $40 million in additional research money for the National Institute of Mental Health and funds for a new state grant program to expand integration of primary care and behavioral health.

"The nation's mental health system needs reform and investment, and we applaud Sens. Murphy and Cassidy for this comprehensive reform initiative," said APA CEO and Medical Director Saul Levin, M.D., M.P.A., during a press conference. "We will work with legislators on both sides of the aisle to accomplish mental health reform."

Levin also noted that APA was pleased to see that many of the important provisions in the Helping Families in Mental Health Crisis Act (HR 2646)—the bill previously introduced in the House by Reps. Tim Murphy (R-Pa.)

see ***Reform Bills*** *on page 36*

Illinois Amends Mental Health Reporting Requirements

The original law raised concerns about the complex interface of mental illness, dangerousness, stigma, gun rights, and clinical appropriateness.

BY MARK MORAN

Illinois Gov. Bruce Rauner last month signed into state law a bill that amends mental health reporting requirements for clinicians in the state that were the result of Illinois' 2013 concealed firearm carry law.

The original Firearm Owners Identification Card Act, enacted in July 2013, required inpatient and outpatient mental health facilities, as well as individual clinicians, to report to the Illinois State Department of Human Services "any person determined to be developmentally disabled or intellectually disabled." Additionally, unlike the federal National Instant Criminal Background Check System, which allows reporting of information only for "adjudicated" admissions (that is, those mandated by the judicial system), the original Illinois law required reporting of "nonadjudicated" admissions, including voluntary, informal, detention, evaluation, and emergency admissions that do not have judicial oversight.

Those individuals reported would be prohibited from obtaining a gun.

But since the original law's enactment, APA's Department of Government Relations, together with the Illinois State Medical Society (ISMS), the

see ***MH Reporting*** *on page 37*

PERIODICALS: TIME SENSITIVE MATERIALS

INSIDE

12

Engagement is key to understanding, overcoming challenges to integrated care.

13

FROM THE HELP LINE

APA offers a webinar and other tools to help you transition to ICD-10 on October 1.

22

Wearable technology could advance how we think about, treat children.

Advertisement

Advertisement

Advertisement

Advertisement

Advertisement

Advertisement

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PSYCHIATRIC NEWS

CONTENTS

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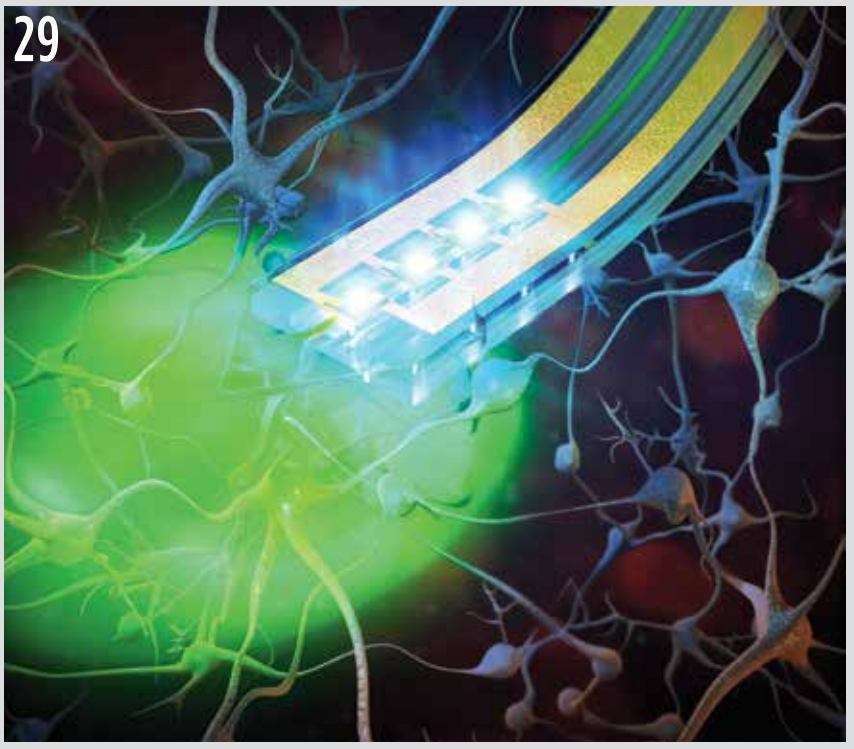

PROFESSIONAL NEWS

12 | **Report Exposes Harsh Treatment of U.S. Prisoners With Mental Illness**
Among other recommendations, a new Human Rights Watch report calls for safer, more humane conditions for all inmates and improved access to mental health services.

13 | **Adolescent MDD, BD Increase Risk for Later Cardiovascular Problems**
The American Heart Association now adds these mental disorders as independent, moderate risk factors for cardiovascular disease alongside some other pediatric diseases.

COMMUNITY NEWS

14 | **Psychiatric Response to Hurricanes Katrina, Rita: Lessons Learned**
Psychiatrists who volunteered in the Gulf region during the aftermath of hurricanes Katrina and Rita reflect on several lessons learned from the experience.

APA INSTITUTE

21 | **IPS: MH Services Conference to Feature Well-Rounded Integrated Care Track**
Primary care skills for psychiatrists and practical lessons for consulting psychiatrists are just two of the topics on integrated care to be covered at this year's meeting.

CLINICAL & RESEARCH NEWS

28 | **Skipping One Night of Sleep May Soften Impact of Emotional Memories**
Forgoing sleep right after a trauma may interfere with the consolidation of emotional memories and prevent them from becoming intrusive.

29 | **Animal Study Reveals Potential of Wireless Fluid Delivery Device for Brain**
Before the technology is ready for humans, scientists will have to determine ways to increase its battery life and the amount of fluid it can hold.

32 | **Despite Proven Superiority, Clozapine is Underused in United States**
Deanna Kelly, Pharm.D., of the Maryland Psychiatric Research Center talks about barriers to clozapine use and how such barriers may be overcome.

Mark Your Calendar Now for APA's Other Meeting Gem

APA's next major meeting is the IPS: The Mental Health Services Conference, which will be held October 8 to 11 at the Sheraton New York Hotel and Towers in New York City. This year's theme is "When Good Care Confronts Red Tape: Navigating the System for Our Patients and Our Practice."

Registration and other information about the meeting can be accessed at http://www.psychiatry.org/ips.

Departments

11 | FROM THE PRESIDENT
12 | PSYCHIATRY & INTEGRATED CARE
22 | VIEWPOINTS
22 | RESIDENTS' FORUM
26 | ETHICS CORNER
35 | JOURNAL DIGEST

FROM THE PRESIDENT

Claiming Our Future: Psychiatry's Role as Guideline Experts

BY RENÉE BINDER, M.D.

Treatments for medical conditions have continued to evolve and change since we learned how to treat patients in medical school and residency. Some of the changes have been dramatic, such as new treatments for HIV, targeted cancer therapies, and the use of laparoscopic surgery. Psychiatric modalities have also changed. In the last decade, studies have been reported of new types of psychosocial therapies, new medications, and new thinking about how to use established medications, for example, the use of atypical antipsychotics or mood-stabilizing agents in various conditions.

To whom should other health care and mental health professionals turn to learn about how to practice in the best possible manner incorporating new studies and data? As psychiatrists, we are the experts in mental health and mental illness. I chose "Claiming Our Future" as the theme for my presidential year. This includes claiming our role in the development of updated treatment guidelines and protocols for the use of somatic treatments and psychosocial treatments, including psychotherapy, for patients who suffer from psychiatric conditions. We want to improve quality of care and give guidance on the current thinking for difficult treatment dilemmas.

In March 2011, the Institute of Medicine (IOM) issued a report calling for higher standards in developing clinical practice guidelines. The IOM called for transparency, improved management of conflicts of interest, and a rigorous review of the scientific evidence including the quality, quantity, and consistency of the evidence. The IOM report also called for external review by relevant stakeholders including scientific and clinical experts, organizations, patients, and representatives of the public, among other recommendations. APA answered that call, and later that year our Steering Committee on Practice Guidelines developed and reported to the Board of Trustees on the process that would align with the IOM standards.

Key features of the process include (1) addressing a defined set of clinical questions on the topic that are identified as having the potential to improve quality of care, (2) conducting a systematic review of the available evidence, (3) evaluating the strength of available evidence using a formal grading method, (4) assessing expert opinion by a formal survey, and (5) developing recommendations based on the balance of benefits and harms for each statement.

Although APA has previously published a series of practice guidelines, the first guideline developed with this new process is now available: *The APA Practice Guidelines for the Psychiatric Evaluation of Adults, Third Edition*. Because of the desire to educate and lead all mental health practitioners in best practices, the guidelines are available for free download at the American Psychiatric Association Publishing website at http://psychiatryonline.org/doi/book/10.1176/appi.books.9780890426760. We are also working on developing educational materials for different member constituencies based on these guidelines.

The second practice guideline using this rigorous process is now in development. This guideline addresses a difficult clinical dilemma. What is the best treatment for agitation and psychosis in patients with dementia? What is the appropriate management? A black-box warning on atypical antipsychotics says that there is an increased risk of death if these drugs are used for elderly patients with dementia-related psychosis. However, how does this translate into practice? If a patient with dementia becomes agitated, what should be done? The use of restraints is generally contraindicated. Who is the definitive source of information for the practicing clinician? It needs to be APA.

Over the last six to eight months, a group of experts was convened by APA who reviewed the literature and also relied on their clinical experience. Studies were reviewed for whether they were definitive or suggestive. Following this exhaustive process, the draft of the new guideline was recently released for review by all APA members, outside allied organizations, and experts. I encourage you to review this guideline and provide feedback. The draft guideline is posted at http://www.psychiatry.org/practice/clinical-practice-guidelines/review-draft-guidelines. All comments are due by September 19 and will be reviewed and assessed by our writing group. When completed, our Assembly and the Board will vote on its approval, and in the end, the APA guideline will be the definitive source of information on the use of antipsychotics to treat patients with dementia for agitation and psychosis.

The work under these higher standards is only beginning. A guideline on treatment for bipolar disorder is in its very early stages. APA members are encouraged to submit topics for review at http://www.psychiatry.org/practice/clinical-practice-guidelines/Suggest-Guideline-Topics.

If we don't take on this mission, who will? Insurance companies? Oversight bodies such as accreditation agencies for nursing homes? If we allow someone else to take the mantle of mental health medical leadership, our patients and their families will lose. The mission of developing treatment guidelines is part of psychiatrists' claiming our future as the leaders of determining what constitutes excellence for our patients. PN

APA's Publishing Division Seeks Editors in Two Key Positions

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- **Editor, *Psychiatric Services*:** This publication is APA's monthly mental health services research and policy journal. Applicants must be APA members who have knowledge of and experience in the field of mental health services research and in established and emerging evidence-based practices for people with serious mental illness. Applications are due by September 30. Candidates should submit their curriculum vitae and a cover letter outlining their qualifications to pseditorsearch@psych.org.

Further information and more detailed descriptions of these positions can be obtained by contacting Rebecca Rinehart at rrinehart@psych.org.

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PROFESSIONAL NEWS

Report Slams U.S. Prisons for Use of Force Against Inmates With Mental Illness

A recent report from Human Rights Watch documents how dangerous, damaging, and deadly U.S. jails and prisons can be for inmates living with mental illness.

BY AARON LEVIN

Correctional officers across the United States too easily resort to "unwarranted and punitive" use of force to control prisoners with mental illness, according to a recent report issued by Human Rights Watch.

"[T]he misuse of force against prisoners with mental health conditions is widespread and may be increasing," concluded the report, written by Jamie Fellner, senior advisor in the U.S. Program of Human Rights Watch (HRW). "[S]taff at times have responded with violence when prisoners engage in behavior that is symptomatic of their mental health problems, even if it is minor and nonthreatening misconduct such as urinating on the floor, using profane language, or banging on a cell door."

An estimated 360,000 people with serious mental illness can be found today in the more than 5,000 jails and prisons in the United States.

"Overall, the quality of care in correctional facilities is poor," forensic psychiatrist Stephen Hoge, M.D., who was not involved with the HRW report, told *Psychiatric News*. "Jails and prisons are understaffed, correctional officers are poorly trained in mental health issues, and there are far too few psychiatrists to treat patients."

Fellner acknowledged that prisons are tough places to live and work. Corrections officers depend on "regimentation, control, and an insistence—backed up by discipline and force—on unquestioned, immediate prisoner obedience to rules and orders," he said.

Prisoners with psychiatric disorders, such as schizophrenia, bipolar disorder, or major depression, can find it challenging to adapt to such an environment or respond to the demands of the officers. When they don't react as officers wish, they may be doused with pepper spray, shocked with electrical stun guns, placed in restraints for days, or seriously injured by correctional staff, the HRW report noted.

see ***Prisons*** *on page 21*

Report Offers Recommendations to End Mistreatment

The Human Rights Watch report offered detailed recommendations for federal, state, and local executive branch and legislative officials:

- Enact the Comprehensive Justice and Mental Health Act of 2015 in the U.S. Senate and House of Representatives (S. 993; HR 1854) and similar state and local legislation to increase collaboration among the criminal justice, juvenile justice, mental health, and substance abuse systems. Such legislation should also support and authorize funding for programs and strategies to ensure appropriate interventions for people with mental health problems at every stage of the criminal justice system.
- Reduce the number of persons confined in prisons and jails who have mental disabilities by increasing the availability of community mental health resources and access to criminal justice diversion programs.
- Improve conditions in prisons and jails to provide all inmates with more humane and safe conditions of confinement.
- End solitary confinement for persons with mental disabilities confined in jails and prisons.
- Improve mental health services in prisons and jails by ensuring that there are sufficient numbers of qualified mental health professionals, adequate treatment resources, and levels of care that meet community standards.
- Ensure that prisons and jails have sound use of force policies that are enforced through training, supervision, reviews, investigations, and holding staff accountable for violating the policies. Use of force policies should include provisions specifically addressing the unique needs and vulnerabilities of prisoners with mental disabilities.
- Ensure that corrections agencies are led by officials committed to operating safe facilities in which all inmates, including those with mental disabilities, are treated with respect and in which unnecessary, excessive, or punitive use of force is not tolerated.

PSYCHIATRY & INTEGRATED CARE

Engaging Others Can Help Overcome Barriers to Collaborative Care

BY GLENDA WRENN, M.D., M.S.H.P.

Virtually any integrated care initiative is bound to have its share of challenges, frustrations, and setbacks. In this month's column, Glenda Wrenn, M.D., M.S.H.P., who leads the Satcher Health Leadership and Integrated Behavioral Health Care Initiative at Morehouse School of Medicine, talks about the importance of engagement, good communication, and a positive attitude when working at the interface of behavioral health and primary care.

—Jürgen Unützer, M.D., M.P.H.

The Division of Behavioral Health at the Satcher Health Leadership Institute at Morehouse School of Medicine has been engaging community sites to cultivate primary care and behavioral health integration since 2011. Despite the established efficacy of integrated care in improving population health outcomes, the majority of care delivered to the most disadvantaged populations remains *usual care*. Eliminating health disparities and achieving mental health equity are aspirations that require a redefining of usual care.

Although the diffusion of innovation around integrated care has moved beyond innovators and early adopters in some parts of the country, pockets of excellence will need to expand at a rapid pace to meet population demands. What is needed to successfully engage highly stressed systems of care with limited resources?

In our experience working with public hospital systems, federally qualified health centers (FQHCs), and community mental health centers, we have found that the process of engagement is critical to understand how to successfully navigate the challenges that threaten system innovation. Since shifting to collaborative practice requires skillful navigation of disparate practice cultures, understanding how best to engage leaders, stakeholders, and champions and maintain the engagement of these groups is valuable. Here are some lessons that we have learned from our experiences working with community-based clinics at varying levels of engagement:

- **Show Your Face.** In the current age of technology and virtual meetings, it's still important to make an authentic, in-person connection. This is true in the beginning of initiatives and regularly throughout. If you are part of a team working to start an integrated care initiative, it can be tempting to skip to the end by setting up the parts of a model in search of a simple formula of success.

  Engagement at multiple levels requires patience, persistence, and a willingness to repeat some processes at multiple time points. For example, having preparation meetings and a kickoff event may seem like enough, but many effective champions of integrated care are the unsung heroes that lean in to efforts after the initial excitement wears off. Listening to the barriers and showing up consistently to address them has helped us successfully engage several vocal naysayers.

- **Stay Encouraged.** A crucible is a place where the ingredients are destroyed,

see ***Integrated Care*** *on page 29*

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

Adolescent Depression, Bipolar Disorder Cited as Risk Factors for CVD

An expert panel says that MDD and BD in teens are independent tier II risk factors that provide a moderate risk of accelerated atherosclerosis and early-onset heart disease.

BY NICK ZAGORSKI

The American Heart Association (AHA) has issued a statement supporting the inclusion of adolescent major depressive disorder (MDD) and bipolar disorder (BD) as independent risk factors for accelerated atherosclerosis and early-onset cardiovascular disease (CVD).

Specifically, the AHA recommends that MDD and BD now be classified alongside Kawasaki disease with regressed coronary aneurysms, chronic inflammatory disease, HIV infection, and nephrotic syndrome as tier II conditions that confer a moderate risk of disease.

"This represents a significant step in how we associate mental health and cardiovascular health," said Benjamin Goldstein, M.D., Ph.D., a child and adolescent psychiatrist at the University of Toronto and chair of the AHA committee that developed this statement.

Up to now, physicians had appreciated that people with depression or bipolar disorder have higher rates of traditional cardiovascular risk factors like smoking, obesity, or diabetes, which leads to more incidence of heart disease.

After reviewing a multitude of available evidence, the AHA committee found that behavioral changes brought on by these psychiatric illnesses or adverse effects resulting from psychiatric medication did not fully explain this increased disease risk.

The exact biological mechanism by which MDD and BD exert their influence is unclear, though evidence is suggestive that they induce blood vessel damage through inflammation and/or oxidative stress.

"With this new statement, we want to raise awareness that even in the absence of any other risk factors, an adolescent diagnosis of depression or bipolar disorder will moderately raise the risk of cardiovascular problems in adulthood," Goldstein told *Psychiatric News*.

Unlike the other four tier II conditions, MDD and BD are not uncommon in adolescents, affecting around 1 in 10 teens. And even that prevalence is likely somewhat underestimated, said Peter Shapiro, M.D., a professor of psychiatry at Columbia University Medical Center and member of APA's Council on Psychosomatic Medicine.

"This statement shows that there is a large group of patients that deserve extra attention from pediatricians and cardiologists," he said. "Psychiatrists can do their part by engaging other clinicians about the cardiovascular importance of mental health, while also identifying and treating mood disorders as soon as possible."

Thus far, there are no studies that demonstrate that treating mood disorders in adolescents can reduce the risk of ischemic heart disease. Early identification and treatment of these disorders in adolescents will allow researchers to examine this question.

Based on the available evidence, psychiatrists do not need to make any significant changes to the treatment paradigms for teens presenting with BD and MDD, though Goldstein believes additional metabolic monitoring of patients taking medication for these disorders is warranted.

"The reality is that the best pharma-

see **CVD** on page 30

Transition to ICD-10 Should Be Easy With *DSM-5*

BY ELLEN JAFFE

The APA HelpLine has been receiving numerous calls from APA members who are concerned about the HIPAA-mandated switch from using ICD-9 diagnosis codes to using ICD-10 codes on all claims that occur on or after October 1, 2015. If you use *DSM-5*, you have all the information you need to successfully transition from ICD-9 to ICD-10 codes.

ICD Codes in *DSM*

While many psychiatrists use *DSM* to determine diagnoses, few realized the codes within *DSM* are ICD codes. In fact, the codes provided in *DSM* have always been ICD codes. ICD was developed by the World Health Organization to enable health care providers around the world to communicate in a way that permits the collection of disease data so that health trends, including epidemics, can be tracked and public health planning can be done on an international scale.

ICD provides a list of disease names and their corresponding codes, whereas *DSM* provides guidelines for selecting the most appropriate diagnosis The Centers for Disease Control and Prevention is responsible for ICD-CM, the U.S. version of ICD.

Ellen Jaffe is a Medicare specialist in the APA Office of Healthcare Systems and Financing.

The Switch to ICD-10

There has been quite a bit of coverage in the media about the difficulty health care providers will have switching from ICD-9 to ICD-10 codes, and apparently a good deal of misinformation has been circulated by companies advertising educational opportunities to psychiatrists.

The switch to the ICD-10 codes does not demand any changes in the way that care is delivered; it merely requires that that care be coded differently.

DSM-5 includes both ICD-9 and ICD-10 codes.

FROM THE HELP LINE
(800) 343-4671
hsf@psych.org

Figure 1

Posttraumatic Stress Disorder

Posttraumatic Stress Disorder

Diagnostic Criteria **309.81** (F43.10)

ICD-10-CM code for posttraumatic stress disorder

ICD-9-CM code for posttraumatic stress disorder

Figure 2

Coding note: The ICD-9-CM code for anorexia nervosa is **307.1,** which is assigned regardless of the subtype. The ICD-10-CM code depends on the subtype (see below).
Specify whether:

(F50.01) Restricting type: During the last 3 months, the individual has not engaged in recurrent episodes of binge eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas). This subtype describes presentations in which weight loss is accomplished primarily through dieting, fasting, and/or excessive exercise.
(F50.02) Binge-eating/purging type: During the last 3 months, the individual has engaged in recurrent episodes of binge eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

The ICD-10-CM code shown here depends on the subtype

Figure 1 is an illustration taken from *DSM-5*. The five-digit ICD-9 code appears on the left, and the alphanumeric ICD-10 code is to the right of the ICD-9 code.

ICD-10 has more codes than ICD-9, enabling providers to be more specific in their diagnoses. For instance, ICD-9 has just one code for anorexia nervosa (307.1). ICD-10 provides a unique code for two types of anorexia nervosa— the restricting type (F50.01) or the binge-eating/purging type (F50.02). When the diagnosis has more than one code in ICD-10, as in this example, the new codes are provided in the text. (Figure 2 is an excerpt from the Feeding and Eating Disorders chapter of *DSM-5* to show what these look like in the text.)

If you are still concerned about selecting the correct ICD-10 code, fear not. After prodding from the AMA, the Centers for Medicare and Medicaid Services announced that for one year Medicare claims will not be denied solely because of an incorrect ICD-10 code. The claims will be denied, however, if *no* ICD-10 code is submitted after October 1, 2015. It is not clear at this time whether commercial payers will follow suit. PN

For more information on using *DSM-5* to transition to ICD-10, view APA's free webinar at http://www.psychiatry.org/practice/dsm/transition-to-icd-10.

COMMUNITY NEWS

Psychiatrists Who Volunteered After Katrina Look Back on Lessons

Geared up in a hurry, a program to send psychiatrists to the Gulf after Katrina mostly worked well but imparted some lessons. This is the second of a two-part series marking the 10th anniversary of hurricanes Katrina and Rita.

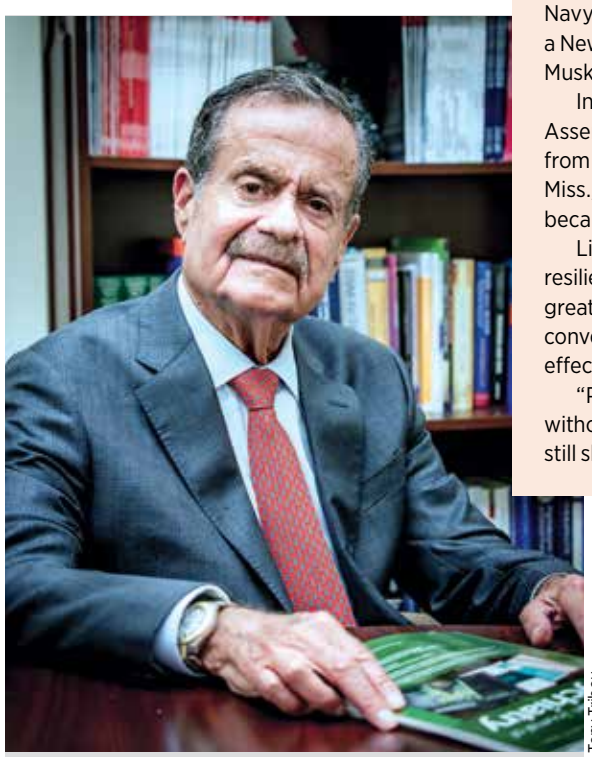
BY AARON LEVIN

After hurricanes Katrina and Rita hit the Gulf Coast region in August and September 2005, much of the mental health infrastructure was inoperable. Clinics and hospitals in some places were damaged and unusable. Clinicians of all kinds and their patients were forced to evacuate from cities like New Orleans and Gulfport, Miss. At the same time, the trauma for survivors arising from the loss of homes, jobs, and loved ones raised calls for help from outside the region.

As the storm approached, Louisiana mental health officials formally requested outside assistance from the Federal Emergency Management Agency (FEMA), said Anthony Speier, Ph.D., then disaster director for the Louisiana's state mental health department. Even with the lead time, six weeks were needed to set up the program, partly due to a shift in responsibility from FEMA to the Substance Abuse and Mental Health Services Administration (SAMHSA). That agency needed to set up a clearinghouse to vet volunteer clinicians and organize a system to house and feed them while on site.

Meanwhile, APA's Committee on the Psychiatric Dimensions of Disaster worked to reconnect area psychiatrists with each other, temporarily providing a remote organizational structure, since local district branches in Louisiana, Mississippi, and Texas could not function.

"They had excellent resources in the area, and we backed them up," recalled Robert Ursano, M.D., the current chair of the committee and a professor and chair of psychiatry at the Uniformed Services University of the Health Sciences in Bethesda, Md.



Tony Tribou

Volunteer psychiatrists who came to Louisiana and Mississippi after hurricanes Katrina and Rita in 2005 helped play a role in getting local mental health services back to work, said Howard Osofsky, M.D., Ph.D.

Anthony Ng, M.D., then chair of APA's disaster committee, went to Gulfport, Miss., following Katrina. Ng learned a lot about postdisaster psychiatry while working in New York City after September 11, 2001.

"In Gulfport, I met with local providers and people from the University of Mississippi to help with training in disaster psychiatry," said Ng, now CMO at Acadia Hospital and chief of psychiatric services at Eastern Maine Medical Center in Bangor.

APA also worked with SAMHSA to recruit mental health professionals to go south. The visitors generally served for a few weeks each in shelters or other points of refuge for displaced citizens.

Today, many of those who went to the region look back with a nuanced view of their experience.

"The SAMHSA program was surprisingly well organized in the face of general chaos," said Jeffrey Stovall, M.D., now an associate professor of psychiatry at Vanderbilt University. "We probably achieved some individual success but didn't have much impact on rebuilding the system of care. It's more important to have an organized response."

At the New Orleans airport after the storm, Laurence Hipshman, M.D., M.P.H., now a psychiatrist with Kaiser Permanente in Portland, Ore., was a member of a Disaster Medical Assistance Team, doing triage for medical evacuation. Organization and coordination were erratic, he said.

"We worked with other units sent in to help, like the National Guard, but we had to make many things happen on our own," he said, recalling, like others, the chaos of the first few days. "There was no regular source of pharmaceuticals, so we had to cobble something together on our own. People with no supplies were gathering outside the airport, creating tensions over who could get food or services."

Washington, D.C., psychiatrist Catherine May, M.D., made five trips to the region in the year or so after the storms.

see ***Katrina*** *on page 28*

Resilience Triumphs

At least one psychiatrist became an exile and a volunteer simultaneously. Before Katrina, Harold Ginzburg, M.D., J.D., was a former U.S. Navy doctor in private practice in Metairie, La., a New Orleans suburb. Today he works at the Muskogee, Okla., Veterans Affairs Hospital.

In September 2005, he recounted to APA's Assembly the story of his own hurried departure from Metairie to a summer camp near Utica, Miss., housing storm refugees, where he quickly became the camp doctor.

Like many others, Ginzburg observed the resilience of his fellow exiles even in times of great hardship. There was a paradox in the conventional wisdom about the psychological effects of a disaster like Katrina, he said.

"People can still meet the criteria for PTSD without being dysfunctional," he said. "They can still show up for work."

Humility and Flexibility: Keys to Effective Disaster Response

In 2005 Edward Kantor, M.D., then at the University of Virginia, helped with a plan to receive refugees from Louisiana while serving as the Psychiatric Society of Virginia disaster liaison and chief of the University of Virginia's Medical Reserve Corps. Kantor helped coordinate mental health planning and supports after 9/11, the Virginia Tech shooting in 2007, and the recent church shooting in Charleston, S.C., where he is now an associate professor of psychiatry at the Medical University of South Carolina. Today, he continues to reflect on the disconnects in response planning from the Katrina response that still persist:

> The strangest part of Katrina from my perspective was that every agency started recruiting and building rolls of potential responders. That sometimes made what happened more about the agency than the response and created confusion because everything happened in parallel. In a few instances, it worked against systems already in place for calling up and deploying volunteers.
>
> However, Katrina also reemphasized what we learned after 9/11—that licensed professionals needed some sort of registration and prescreening when possible. This is even more important in events related to violence or terrorism where access is more highly regulated.
>
> In contrast, some incredible things also happened that had never been pulled off before in terms of interagency cooperation—like an in-the-moment Memorandum of Understanding between the Medical Reserve Corps and the American Red Cross for utilization of volunteers. That was unprecedented. There are also lots of stories of spontaneous volunteers who simply decided to show up and had no role.
>
> Psychiatry's role has and will continue to vary greatly based on the person, the event, and the regional particulars. Having a role before the event helps facilitate participation during and after. Basic training in disaster issues and operations, as well as pre-credentialing and registration, all help to ensure useful participation and minimize frustration.
>
> I think the best examples of psychiatry working in disaster areas occur when we go in humbly and want to help, rather than treat, and can tolerate not being in charge of everyone and everything.
>
> Figuring out where we can fit in and amplify the overall response takes ongoing flexibility from professional societies. An individual psychiatrist well versed in response issues can be a great help with risk-communication message development, supporting leaders and responders, and developing local strategies across the existing resources and agencies. Getting along and respecting the value and expertise of our non-psychiatrist colleagues is paramount for successful integration. Respecting the population affected, partnering when possible with local clinicians, and having sensitivity to cultures and beliefs different from our own are all critical to success.
>
> If I've learned anything, it's that preexisting relationships and trust between the individuals involved still go much further than titles and predefined roles when getting groups to play together and in making things work in the midst of the inevitable chaos.

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APA INSTITUTE

Get Up to Speed About Integrated Care

Want to learn more about integrated care and primary care skills useful in integrated care settings, as well as meet the leading experts in the field? IPS is the meeting for you!

BY LORI RANEY, M.D.

Ellen Dallager

Lori Raney, M.D., leads a session on integrated care at last year's IPS: The Mental Health Services Conference.

APA members interested in integrated care will have an opportunity to learn more about the continued emphasis on the integration of behavioral health and general medicine and the changing role of psychiatrists at this year's IPS: The Mental Health Services Conference. It will be held October 8 to 11 at the Sheraton New York Times Square Hotel.

The IPS features a well-rounded track on integrated care; some sessions are new, while others build on well-received sessions from past meetings. Highlights include the ever-popular duo of courses of "Primary Care Skills for Psychiatrists," chaired by Erik Vanderlip, M.D., on Thursday morning, October 8, and "The Integration of Primary Care and Behavioral Health: Practical Skills for the Consulting Psychiatrist," which I will chair in the afternoon.

There are a number of sessions on residency training including the workshop "Preparing Residents for the Integration of Mental Health and Primary Care: What Do Residents Want and How Can We Deliver It," with two more presentations on this topic on Saturday, October 10, with Richard Summers, M.D., and Deb Cowley, M.D., followed by another on Sunday, October 11.

Sessions on Friday, October 9, include lectures by Harsh Trivedi, M.D., titled "Vanderbilt Behavioral Health Population Health Strategy: Lessons Learned from an Integrated, Academic, Statewide Healthcare Delivery System," and from New York City, Neil Cohen, M.D., and colleagues will inform us about "Medicaid Redesign in New York State: Changing Practice, Changing Lives."

Venturing into "reverse" integration on Saturday, the forum "Own the Gap: The Psychiatrist's Role in Reducing Mortality in the SMI Population," hopes to stimulate lively discussion with leaders in this arena including Ben Druss, M.D., and Joe Parks, M.D.

On Sunday, October 11, Rebecca Miller, Ph.D., and associates will look at the use of peers in integrated settings, and the meeting will close with a final workshop on residency training. Throughout the meeting the continued emphasis on integrated care will be discussed in many other presentations with a unique opportunity for a deep dive into this important and developing area. PN

The meeting's preliminary program can be accessed at http://www.psychiatry.org/ips. APA members can also take advantage of advance registration fees by registering now at the same site.

Lori Raney, M.D., is chair of APA's Work Group on Integrated Care and editor of *Integrated Care: Working at the Interface of Primary Care and Behavioral Health* from American Psychiatric Association Publishing. She can be reached at lraney@axishealthsystem.org.

Prisons

continued from page 12

Abuses have sometimes been taken to court by individuals, but that does not lead to systemic change, wrote Fellner.

Punishing correctional officers might seem tempting, but they often work with limited resources, limited training, and not much oversight, said Robert Trestman, M.D., Ph.D., a professor of medicine, psychiatry, and nursing at the University of Connecticut and a specialist on corrections psychiatry. "They need better training and supervision, and right now that's not happening."

At the same time, mental health treatment for inmates is frequently inadequate at best. "Psychiatrists are often hired to write prescriptions and do not have adequate input into management of mental health care," said Hoge. "Absent institutional support, they do not have adequate time or resources to assess quality, identify problems, and implement change."

The report recommends safer, more humane conditions in jails and prisons for all inmates and improved access to better mental health services for those with mental illness (see box on page 12).

To create safer correctional institutions, the report calls for a reduction in the number of people with mental illness confined in prisons and jails in the first place through the expansion of diversion programs and community treatment options, the end to solitary confinement for people with mental disabilities in jails and prisons, and improved discharge planning to connect former inmates to community care to reduce recidivism.

The report also recommends the passage of the Comprehensive Justice and Mental Health Act of 2015 and better coordination among all elements of the criminal justice and mental health systems.

Reducing the number of people with mental illnesses in U.S. jails is a major goal of APA. To that end, APA is participating in a new initiative, Stepping Up, whose partners include the National Association of Counties and the Council of State Governments Justice Center with support from the U.S. Department of Justice's Bureau of Justice Assistance (*Psychiatric News*, June 5). PN

The Human Rights Watch report "Callous and Cruel: Use of Force Against Inmates With Mental Disabilities in U.S. Jails and Prisons" is posted at https://www.hrw.org/report/2015/05/12/callous-and-cruel/use-force-against-inmates-mental-disabilities-us-jails-and.

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VIEWPOINTS

The Global Promise of Wearable Technology in Children's Mental Health

BY ARSHYA VAHABZADEH, M.D.

A digital revolution is coming to mental health, having already established a foothold in business, education, and other areas in health care. This revolution is, however, not led by angry citizens, but is fueled by the rapid emergence of "exponential technologies." Exponential technologies are those that are growing swiftly in power and availability and are opening up entirely novel fields. These technologies have immense potential to disruptively change how we live our lives and how we manage our health. Exponential technologies include "wearable" sensors, artificial intelligence (AI), robotics (including drones), synthetic biology, 3-D printing (including the printing of body parts), and human-computer interfaces.

We may already have exponential technology in our pockets—even basic smartphones contain considerable computing power and integrate the functionality of many other historically separate devices. We are on the cusp of an explosion in the number of people using wearables, interactive digital devices that can monitor our behavior and physiology. There are many examples of wearables, including smartwatches (for example, Apple watch), smartglasses (for example, Google glass), and activity trackers (for example, Fitbit).

When we assess children's mental health, we often consider their sleep, appetite, activity level, and relationships with others. These are all areas where wearable sensor-rich devices can collect data and, in some cases, potentially offer some type of intervention. In order for the data to be useful, it must lead to actionable change. The data must give us insights into a child's functioning and must therefore undergo an analytic process. Historically, data analysis was largely a human task, but the development of predictive algorithms in many industries has largely automated data analytics. These analytic algorithms are not based on a single person but on subtle associations that are discovered from the analysis of thousands of individuals.

In the United States, wearable devices, in addition to other exponential technologies, are already transforming people from passive health-seeking patients to actively engaged health care consumers. These consumers use technology to generate data, monitor their chronic health conditions, and shape the health care systems of the future. There is immense potential for these technologies to create mental health solutions that can overcome geographic boundaries and create global solutions.

How can wearable technologies transform pediatric mental health?

Quantitative Data

Most of our information about a child comes from a combination of parental reports, a clinician's observation, and collateral information. Most of this information is subjective, and reliability may vary a great deal. We often ask parents to give us feedback regarding how a child has been doing for the preceding week, month, or more. This is not an easy task; we are asking a parent to be an objective human data collector, complier, analyzer, and reporter. We should therefore not be surprised if the "recency effect" (people recall the most recent events best) leads to bias. Wearable technologies can objectively and quantitatively monitor many aspects of a child's behavior, sleep patterns, arousal levels, and other physiologic markers. The data that these devices collect can be used to inform the clinician and, with the development of appropriate analytic tools, help monitor and guide treatment.

Scalable and Affordable Solutions

Worldwide, there are considerable mental health challenges, and many communities are highly under resourced. Children's mental health is an area of extreme need, with a substantial lack of trained clinicians. Technology has the potential to be a scalable solution, allowing for a digital means not only of communication, but also to help with assessment, treatment, and monitoring. New technology almost always is expensive, at least initially, putting it out of reach of many potential

*see **Viewpoints** on page 30*

Arshya Vahabzadeh, M.D., is a fellow in child and adolescent psychiatry at Massachusetts General Hospital/Harvard Medical School.

RESIDENTS' FORUM

Call for Applications for RFM Trustee-Elect: An Opportunity to Influence Our Field

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

The first Board of Trustees Meeting for this year was held July 11 and 12 in Washington, D.C., with President Renée Binder, M.D., presiding. In this forum, I will share one small example that demonstrates how residents and fellows are empowered at the Board level. I hope this story will inspire you to get involved with APA and consider running for the resident-fellow member trustee-elect (RFMT-elect) position.

The APA Board consists of 20 voting members, one of which is the RFMT, and one of which is the early career psychiatrist (ECP) trustee. In addition, four other RFMs sit on the Board as nonvoting members, including the RFMT-elect (Stella Cai, M.D.) and the chairs of the three APA fellowships: the Diversity Fellowship chair (Uchenna Achebe, M.D.), the Leadership Fellowship president (Misty Richards, M.D.), and the Public Psychiatry Fellowship chair (Raj Loungani, M.D.).

Together, that means that six RFM-ECP psychiatrists sit at each Board meeting, creating an incredible opportunity for younger psychiatrists to help steer APA in the right direction for the future of our profession. With that structure as background, I want to update you on one recent issue that highlights the Board's readiness to listen and react to the needs of those who represent our field's future.

The Board has to consider many action items for review in any given meeting. Among these, the Budget and Finance Committee had recommended an increase in nonmember RFM registration fees by $30 for IPS: The Mental Health Services Conference. Full disclosure: I am a member of the Budget and Finance Committee. The goal of this increased registration fee was to incentivize residents and fellows to sign up for membership of APA.

At the Board meeting, I brought up the fact that many residents and fellows are unsure whether they are able to attend meetings until the last minute. As such, they may want to register late and may not be able to take advantage of the member discount. The administration explained that there was a rebate program through which residents who sign up for membership at the time of registering for a meeting could later fill out a rebate form to get reimbursed for the added expense of registering as a nonmember. I pointed out that this rebate program was barely used last year and that the rebate program, while theoretically a good solution, remained, practically speaking, an inaccessible one.

The other RFMs and ECP present voiced their agreement. Here is where I was most impressed by the Board. Many other senior psychiatrists and Board members voiced their opinion that this policy was unnecessarily burdensome for busy residents who were unlikely to fill out time-consuming rebate forms. The Board at large felt that most residents who sign up are likely to be approved, and it therefore makes sense to give them the benefit of the doubt at the time of registration by giving them discounted member rates. As a result, the Board passed an amendment to the action to increase IPS rates, stating that RFMs who sign up for membership at the time of meeting registration should be given the discounted member rate.

This is a small example of how RFMs and ECPs can influence policy at the Board level, and it also demonstrates how open minded and eager the Board is to listen to the ideas and opinions of our profession's youngest leaders. I am truly inspired by all of my colleagues on the Board and hope you will consider adding your voice to APA! Any trainee who will be in residency or fellowship training for the duration of the two years of the position is eligible to apply for the RFMT-elect position by the deadline of October 1. More information is posted at http://www.psychiatry.org/residents-medical-students/residents/leadership-positions. Feel free to email me at Rnshahmd@gmail.com if you have any questions! PN

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.

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ETHICS CORNER

Consider Your Motives Before Taking on Someone Else's Patient

BY CLAIRE ZILBER, M.D.

A patient makes an appointment for a medication consultation, notes unhappiness with his or her therapist, and asks if you will provide both medication management and psychotherapy. Alternatively, you refer the patient to a colleague for a second opinion, and the next thing you know, the patient has transferred care to this colleague.

As common as this experience may be, it can be hard to tell if the patient's decision to transfer care is based on a legitimate need, if it stems from the patient's acting out a transference dynamic, or if it is the result of aggressive patient recruitment by another clinician.

While there is not a specific written prohibition against "stealing" patients from colleagues, there are sections of APA's *Principles of Medical Ethics With*

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

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Annotations Especially Applicable to Psychiatry that may apply.

Boundaries of Doctor-Patient Relationship

Section 1, Article 1, of APA's *Principles* states, "A psychiatrist shall not gratify his or her own needs by exploiting the patient. The psychiatrist shall be ever vigilant about the impact that his or her conduct has upon the boundaries of the doctor-patient relationship and thus upon the well-being of the patient. These requirements become particularly important because of the essentially private, highly personal, and sometimes intensely emotional nature of the relationship established with the psychiatrist."

When a patient approaches you about transferring care, you must consider whether you are agreeing with a patient's request to transfer care to you because you like this patient and want to fill another hour in your schedule or if you believe that you have a skill that the other clinician lacks and is required for this patient's treatment. While the latter may be true at times, it is important to guard against arrogance or self-deception.

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If you believe that you can offer a more effective form of treatment, you must communicate the nature of the treatment to the patient. Section 8, Article 4, of APA's *Principles* asserts, "In informing a patient of treatment options, the psychiatrist should assist the patient in identifying relevant options that promote an informed treatment decision, including those that are not available from the psychiatrist or from the organization with which the psychiatrist is affiliated."

While it is appropriate to present transfer of care as a treatment option, it should not be presented as an imperative. There should be a full informed consent discussion about the patient's treatment options, including an exploration of the patient's motives for changing providers.

A variety of potential consequences of transfer should be considered, including clinical improvement in the patient's condition, clinical deterioration, and a missed opportunity to work through a transference enactment. While less important than the effect on the patient, you may also want to consider the effect such action will have on you. "Stealing" a patient can lead to deterioration in trust between colleagues and damage your reputation.

Talk With the Other Clinician

When approached by a patient who wants to transfer his or her care, it is preferable to pause before agreeing, taking time to consider your own motives. Talking with the other clinician may be the right next step. Is the patient repeating an old dynamic pattern, such as rejection of caregivers based on a childhood experience of disappointing caregivers, which could be handled better through therapeutic exploration? How might the patient have distorted what he or she reported to you about the other therapist? This concern about the patient's motivations must be balanced by the need to respect a patient's autonomy to choose his or her provider.

It is awkward to call colleagues to discuss taking over the care of a patient or to ask them why they have taken over the care of your patient. Ideally, we are sufficiently respectful of each other's professionalism and can engage in an honest, collegial, and productive discussion.

When we have the courage to make these calls and to respond to them with professionalism, we uphold our fiduciary responsibility to the patient, to place the patient's best interests above our own. We also advance the collegiality of the profession and reinforce for ourselves the wisdom of seeking the ethical path. PN

APA's *Principles of Medical Ethics With Annotations Especially Applicable to Psychiatry* and *Opinions of the Ethics Committee on the Principles of Medical Ethics* can be accessed at http://www.psychiatry.org/practice/ethics/resources-standards.

CLINICAL & RESEARCH NEWS

Acute Sleep Deprivation May Reduce Impact Of Traumatic Memories

Holding off on sleep on the first night after watching a traumatic film reduced the frequency of subsequent "flashbacks" over the following week.

BY NICK ZAGORSKI

Marcos Mesa Sam Wordley/Shutterstock

Over time, a lack of sleep can lead to a host of cognitive and mood problems. Yet, in acute settings, sleep deprivation has been shown to provide some benefit to the brain. One of the most studied phenomena in sleep deprivation research is its potential to rapidly cure depressive symptoms—at least until the person falls asleep.

Now, research appearing in the journal *Sleep* has demonstrated that one night of sleep deprivation reduces the impact and intrusiveness of emotional memories, the type that arise from watching or experiencing a traumatic event.

"It may seem counterintuitive, given that people who experience trauma often have difficulty falling asleep to begin with," said study author Kate Porcheret, Ph.D., a research scientist at the Nuffield Department of Clinical Neurosciences at the University of Oxford. "But we think that forgoing sleep right after a trauma interferes with the consolidation of these emotional memories and prevents them from becoming intrusive."

Porcheret noted that the exact process by which these memories are formed is still being researched, but the general belief in the field is that emotional memories are likely distinct from typical conscious recollection, with processing that relies more on the emotional situation surrounding an event rather than the context of that event. Delaying memory consolidation by sleep deprivation might therefore serve to distance the emotion from the context.

For the current study, Porcheret and her colleagues showed 42 healthy adults a short film with traumatic content. After asking the participants to report on the immediate effect of the film, the group was split in half, with some sent home for a normal night of sleep while the others went to a sleep lab where they underwent total sleep deprivation.

The next morning, each person was asked to provide their thoughts on the film and then over the next six days they kept a diary in which they were asked to record any intrusive memories that popped into their heads.

The researchers found that compared with the participants who had a good night's sleep, sleep-deprived participants reported the film to be less disturbing and over the course of the week registered fewer intrusive flashbacks to the film (average of 2.28 versus 3.76 flashbacks).

Though this study only followed the participants for a week, Porcheret noted that other work has suggested that disrupting the initial memory formation can reduce intrusiveness for up to four years.

"Now, these conditions are far removed from an actual traumatic experience, and our aim is not to induce trauma in people, but we think this type of experiment is on the same spectrum in that it creates an environment where intrusive memories can be formed," Porcheret told *Psychiatric News*. "So this should serve as a reasonable analogue to real-life traumatic events."

She did caution that there is still much that needs to be understood about sleep and memory formation before trying to use sleep deprivation as an aid to people who experience pathological intrusive memories, such as those with posttraumatic stress disorder (PTSD) or complicated grief.

This study was supported by a Wellcome Trust Strategic Award to the Sleep and Circadian Neuroscience Institute at the University of Oxford, with additional support from the Medical Research Council and a Wellcome Trust Clinical Fellowship. PN

An abstract of "Psychological Effect of an Analogue Traumatic Event Reduced by Sleep Deprivation" is posted at http://www.journalsleep.org/ViewAbstract.aspx?pid=30068.

Katrina

continued from page 14

She worked on a cruise ship rented by FEMA that housed first responders and their families and later served at an Episcopal tent clinic started by a nurse in Pass Christian, Miss.

May, who first trained as an emergency physician, observed that close to 50 percent of people with initial physical complaints also screened positive for posttraumatic stress disorder (PTSD) and other psychiatric symptoms. From that she concluded that even basic, hands-on general medical skills like taking vital signs or asking how a patient was feeling could open doors to mental health counseling or treatment.

Katrina also reemphasized the lessons learned after 9/11, namely, that licensed professionals needed some sort of registration and prescreening when possible.

"Spontaneous volunteers are not useful," said Leslie Gise, M.D., of Kula, Hawaii, who came to New Orleans two weeks after the storm. "My experience at Katrina made me realize that all the seemingly boring courses on psychiatric disaster response that I sat through over the years were actually of value."

"I learned the importance of preparedness," said Elizabeth Henderson, M.D., who went from her home in Jackson, Miss., to Gulfport after the storm. One area that is often overlooked is the emotional status of first responders, especially when they are getting appeals for help and cannot respond. "They need time out to remain effective."

"Much of the time the system worked well," said Howard Osofsky, M.D., Ph.D., a professor and chair of psychiatry at Louisiana State University Health Sciences Center in New Orleans. "But sometimes there were problems of discontinuity in their relationship with local providers as volunteers arrived or left abruptly."

Many individual clinicians were well intentioned but were not well prepared for the rigors of postdisaster psychiatry, like makeshift accommodations or the large numbers of people seeking help, added Speier. "There has to be better orientation of where they're going, and that can't be handled right before they arrive."

Psychiatrists who worked in the affected areas emphasized the resilience and the variety of the people they encountered.

"The experience clarified for me both the vulnerabilities of the patients we serve and also the strength of communities to take care of themselves," said Stovall.

May gained an appreciation of working with faith-based groups.

"I learned to value the positive, cognitively based structure of those organizations," she said. "That's how you infuse hopefulness and a sense of purpose."

Insight into people on a higher level than the individual is needed, as well, said Osofsky. "Clinicians need an understanding of culture—or cultures—in the communities where they serve."

May offered another lesson about disaster response. She observed that there is a time to go in and work, but there comes a time to leave, because the region has its own existing resources. "They get back up in action, and you're not needed there anymore," she said.

Today, there may be a greater awareness of what needs to be done after a disaster, but that awareness is not matched by an increase in community preparedness, said Ng.

Mental health professionals need to assert their role in the preplanning stages of disaster response, said Henderson. "Mental health is the last thing planners think about and the first thing that they miss when disaster happens." PN

Early coverage of the effects of hurricanes Katrina and Rita in P*sychiatric News* is posted at http://psychnews.psychiatryonline.org/doi/full/10.1176/pn.40.19.00400005 and http://psychnews.psychiatryonline.org/doi/full/10.1176/pn.40.19.00400001.

CLINICAL & RESEARCH NEWS

Researchers Move Closer to Targeted Drug Delivery to Brain

A new remote-controlled device being tested in animals offers researchers the chance to study the ways pharmacological and optical manipulations alter behavior.

BY NICK ZAGORSKI

One of the drawbacks of a standard psychiatric medication is a lack of selectivity; once a pill is ingested, one is at the mercy of human physiology to hope that enough of that agent reaches the desired brain region without too many unwanted interactions.

Targeted drug delivery to the brain is challenging, as very few biological compounds can cross the blood-brain barrier. While surgical implants that reach a specific part of the brain are an option, such technology can be bulky.

However, researchers from Washington University School of Medicine and the University of Illinois at Urbana-Champaign now say they have developed a tiny wireless device capable of delivering drugs to the brain with the push of a remote control.

While the device is currently only outfitted for mice and rats, the group says it represents the first wireless fluid delivery device for deep brain stimulation.

The delivery system is a lightweight plastic case (only 1.8 grams) containing four fluid chambers that can be attached to the skull of the animal like a cap with an ultrathin probe extending into the brain region of interest. When activated by remote, tiny pistons push the fluid down through the probe (The probe is thinner than a human hair to reduce potential damage in the brain).

Researchers have been using implanted devices for drug delivery in lab animals for a while now, but these systems require the animals to be tethered to pumps and tubes. For Michael Bruchas, Ph.D., an associate professor of anesthesiology and neurobiology at Washington University and co-leader of this study, such conditions were problematic for his research.

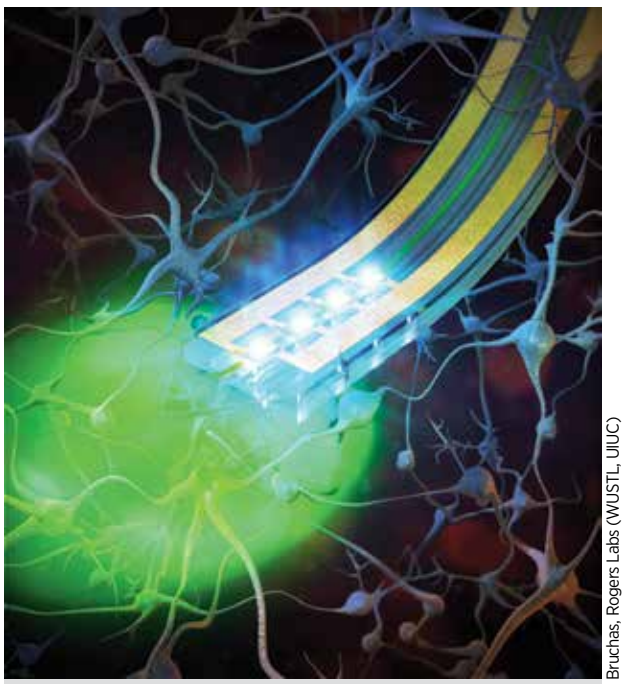
"My interests lie in how stress can be both a motivating property but also exacerbate or even cause psychiatric disorders," he told *Psychiatric News*. In an effort to minimize the amount of extraneous stress the animals were exposed to, Bruchas teamed up with John Rogers, Ph.D., a professor of materials science and engineering at the University of Illinois at Urbana-Champaign to develop a wireless device that would allow animals to roam freely.

In addition to transporting fluids, the ultrathin probes developed by the team are outfitted with tiny LED lights, which allow the researchers to make use of the emerging technology of optogenetics, whereby neurons can be stimulated by flashes of light.

"It's been difficult to merge these two techniques—pharmacological and optical manipulation—in research studies, but with this device we can integrate them," Bruchas said.

As a proof of integration, the researchers used light to trigger the release of dopamine in the nucleus accumbens of mice, which stimulated the animals' reward-seeking behavior. With a second press of a button, they released a dopamine blocker from the chambers to the same region and inhibited the light-induced reward behaviors.

"I am biased, but I do think the system works great and has real clinical potential," said co-first author Jordan McCall, Ph.D., M.P.H., a former neuroscience graduate student in Bruchas' lab who led the way on this project along with the University of Illinois' Jae-Woong Jeong, Ph.D., a postdoctoral fellow at the time and now an assistant professor at the University of Colorado, Boulder.



Bruchas, Rogers Labs (WUSTL, UIUC)

The wireless neural device developed by researchers at Washington University and University of Illinois features a dual-purpose probe that can stimulate through chemicals and light.

"Still, there are many improvements needed for this technology to scale beyond rodents," McCall continued. "Greater access to fluid would be a top priority, as right now we have only four reservoirs, so basically only four doses of medicine." McCall noted that efforts are under way to modify the chambers to make them replaceable, like inkjet printer cartridges.

Battery life is another area of improvement, especially if these devices are to be implanted under the skin to make them less visible.

One of the beauties of the device design, Bruchas noted however, is that much of it was built from parts that can be found in hobby stores or designed using 3-D printing applications. "So almost any academic lab that might be interested in this technique could build their own and start tweaking it to make improvements," he said.

The full details regarding the construction of the remote-controlled device were published July 16 in the journal *Cell*.

This study was supported by multiple grants from the National Institutes of Health, as well as from a National Security Science and Engineering Faculty Fellowship of Energy and an award from the U.S. Department of Energy Division of Material Sciences. PN

An abstract of "Wireless optofluidic systems for programmable in vivo pharmacology and optogenetics" is posted at http://www.cell.com/cell/abstract/S0092-8674(15)00828-4.

Integrated Care

continued from page 12

stressed, and strained resulting in something new. The current stresses on health care systems of care are real, and the demands of efficiency and productivity are wearing out many primary care providers. Effective engagement recognizes these realities and transforms poor morale into hope for a future where there is "no wrong door" for treatment and care delivery occurs in environments where healing is energizing for all involved.

Such hopeless optimism is essential to move towards integrated care, as there are many expected difficulties, unexpected challenges, and sources of discouragement. Knowing one's "signature strengths" can help you adapt when things seem stuck in place.

- **Build.** As the tennis great Arthur Ashe once said, "Start where you are. Use what you have. Do what you can." This mantra is one of practical action with a vision of what success looks like combined with a willingness to build with the ingredients and opportunities that are readily available. There is a preponderance of evidence demonstrating the effectiveness of integrated care in practice and measurement-based care.

Providers and systems can start building toward integrated care by using validated measures to track behavioral health outcomes in specified cohorts. Systems interested in integrated care can also use what they have (a psychiatrist, social worker, psychologist, nurse care manager) to move in the direction of an integrated care model.

A commitment toward building also requires a willingness to do what you can. This means not waiting for the perfect grant or fully funded initiative, but building strategically while being informed by the local issues of importance. Luckily, addressing mental health will make just about every medical condition better, so start where the levers of change will make the most impact where you are.

- **Translate.** Engagement in the context of constraint requires translation to the patient, provider, family, and administrator. What does a meaningful outcome look like to a patient considering integrated care? What are the outcomes of relevance to payers and regulators? What matters most to providers and practice managers? Translating the benefits of full-scale collaborative practice into the language of these stakeholders can be a challenge, but is a worthy and necessary effort.

As a psychiatrist committed to achieving health equity, I find it rewarding to work at the interface of behavioral health and primary care creating system-level changes that result in positive seismic shifts. It is important to attend to engagement at many levels and work to create and sustain momentum despite the inevitable competing priorities, demands, and setbacks that will challenge your efforts. PN

CLINICAL & RESEARCH NEWS

Low Physical Activity in Early Adulthood Linked to Worse Midlife Cognition

According to the Centers for Disease Control and Prevention, less than half of U.S. adults meet the recommended guidelines for the weekly physical activity.

BY VABREN WATTS

A study presented at the 2015 Alzheimer's Association International Conference, held in July in Washington, D.C., suggests low levels of physical activity and high television viewing in early adulthood may impact cognitive function in midlife.

"We [in the United States] are in the middle of a 'couch potato-like' situation in which a lot of people are not getting the kind of exercise that they should be getting," said the study's senior author, Kristine Yaffe, M.D., the Roy and Marie Scola Endowed Chair and Vice Chair of Research in Psychiatry at the University of California, San Francisco, at a press conference during the meeting.

In fact, the Centers for Disease Control and Prevention (CDC) reports that less than half of U.S. adults aged 18 to 64 meet the recommended guidelines for weekly physical activity. That includes at least 150 minutes of moderate-intensity aerobic activity (that is, brisk walking) and two or more days of muscle-strengthening activities on all major muscle groups.

2015 Alzheimer's Association International Conference

Kristine Yaffe, M.D., says that reducing today's high levels of physical activity and sedentary behavior in early adulthood may have a significant public health impact.

"We know from prior work that physical activity in middle adulthood may serve as a protective factor against cognitive decline or dementia in late life," said Yaffe. "But how do behaviors during a person's 20s and 30s affect … cognitive functioning in midlife?"

To answer this question, Yaffe and colleagues analyzed data of physical activity as well as specific sedentary behaviors, such as television viewing, of more than 3,200 individuals aged 18 to 30. The participants' physical activity and television viewing were assessed at three or more visits over 25 years.

"This was a life course approach. We know that behaviors come and go, so we wanted to gather information of what the participants were doing over time," Yaffe explained.

At year 25 of the study, the researchers assessed the participants' memory, executive function, and processing speed and found that participants who reported low physical activity (less than 300 kcal per 50-minute session, three times a week) in more than two-thirds of the follow-up visits had significantly worse cognition in midlife than individuals reporting less frequent physical inactivity—even after adjusting for education, smoking habits, alcohol consumption, body mass index, and hypertension.

Participants who reported regularly watching television for more than 4 hours per day throughout the study also had worse midlife cognition than those who reported less television viewing. Those who reported a history of long-term low physical activity and high television viewing were almost two times more likely to have poor cognitive function in midlife.

"These results are really important because it sets the stage for what's going to happen over the next 20 to 30 years for these participants," said Yaffe.

Yaffe and colleagues emphasized that because global data suggest that levels of physical inactivity and sedentary behavior are increasing, understanding the relationship between physical activity in early adulthood and cognitive decline later in life may be of importance.

"We really need to ensure that young adults and children understand that physical activity is not only important for their weight and heart, but also for their brain," Yaffe said.

The researchers concluded that because research indicates that Alzheimer's disease and other dementias develop over several decades, increasing physical activity and reducing sedentary behavior beginning in early adulthood may have a significant public health impact.

The current investigation was a part of the Coronary Artery Risk Development in Young Adults study, funded by the National Heart, Lung, and Blood Institute. PN

A press conference with Yaffe highlighting the findings from "Early Adult Patterns of Physical Activity and Television Watching and Mid-Life Cognitive Function" is posted at https://www.youtube.com/watch?v=UHV4b8mq16Y. More information about the CDC guidelines for weekly physical activity is posted at http://www.cdc.gov/physicalactivity/data/facts.html.

Viewpoints

continued from page 22

users. One of the common attributes of exponential technology is rapidly falling prices, especially per unit of performance/power. Training a mental health clinician may take months or years, while learning to use a wearable may take only a few hours, and downloading an app may take only a few minutes. There are already a number of companies who are leveraging technological solutions to deliver health care and education to the most disadvantaged parts of the world.

Monitoring in Normative Environments

Children spend most of their time at home or in educational settings. Many health care systems assess the mental health needs of children outside these settings, only seeing children during "snapshot" assessments. Good clinicians routinely use collateral history sources, for example, parental and teachers' reports, to understand the broader picture. Wearable devices can, by virtue of their portability, quantitatively and continuously monitor children 24 hours a day. Such data can be summarized in reports such as activity monitoring, physiologic markers of stress, sleep quality and quantity, attention, and concentration. These reports may offer a supplemental, yet powerful, means of understanding how the child is functioning in different settings.

The Future

We still are a number of years away from this vision of a digitally guided mental health future, but it is coming. However, barriers exist. Firstly, our understanding of the physiologic/behavioral correlates of children's mental health problems is poor. Secondly, the cost of these technologies is at present prohibitive for many people. The globalization of these technologies can only happen if the cost for use and maintenance is affordable across geographic boundaries. Another barrier is the lack of children's mental health content experts to help build such tools. Additionally, the mental health needs of children are rarely prioritized for innovative projects compared with other aspects of health care. We need politicians, health care leaders, and businesses, including technology companies, to realize the enormous benefit to be gained. PN

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CVD

continued from page 13

cological treatments we have for mood disorders do pose a risk of weight gain, so we need to be cognizant of that as we guide our treatment," he said.

Goldstein hopes the incorporation of MDD and BD as independent risk factors for CVD will spur more integration of mental health outcome measures in heart disease clinical studies and vice versa; such inclusion may help identify the nature of the mind-heart relationship, and perhaps identify treatment regimens that optimize mood and CVD benefits. PN

"Major Depressive Disorder and Bipolar Disorder Predispose Youth to Accelerated Atherosclerosis and Early Cardiovascular Disease" is posted at http://circ.ahajournals.org/content/early/2015/08/10/CIR.0000000000000229.abstract.

Advertisement

Why Won't Clinicians Use Clozapine Despite Proven Superiority?

Blood monitoring requirements and concerns over agranulocytosis may be what's to blame for the underuse of a medication that has been found effective for treating patients with treatment-resistant schizophrenia.

BY MARK MORAN

Clozapine, approved by the Food and Drug Administration (FDA) in 1989, has been repeatedly shown to be superior to other medications for treatment-resistant schizophrenia. In 2002, it became the first and only drug approved for suicidality; however, the clinical reality that has persisted since its approval is that clozapine is underused in the United States. In certain subgroups—especially African Americans—it is severely underused.

"All the data suggest this is a superior medication, particularly for treatment-resistant schizophrenia," said Deanna Kelly, Pharm.D., of the Maryland Psychiatric Research Center (MPRC), in an interview with *Psychiatric News*. "For people who have suicidal ideation, it is very effective in calming their suicidal thoughts. Clozapine is also effective for aggressive and violent patients and for patients who experience tardive dyskinesia related to other medications."

"Clozapine remains the only antipsychotic that has been FDA-approved for treatment-resistant schizophrenia," she added, "and it provides effective treatment even when patients do not respond to other second-generation antipsychotics. No existing first- or second-generation antipsychotic is as effective as clozapine monotherapy in treatment-resistant patients."

"There really is no doubt that it is a superior medication," said Kelly.

Effect Size Greater Than Comparison Drugs

The evidence for the effectiveness of clozapine is not new. As early as 2003, a meta-analysis by John Davis, M.D., a professor of psychiatry at the University of Illinois at Chicago College of Medicine, and colleagues comparing clozapine with five other antipsychotics (amisulpiride, risperidone, olanzapine, zotepine, and aripiprazole) found that the effect size for clozapine was substantially stronger than the closest competitor (amisulpiride) and twice that, or greater, of the other four drugs.

In phase 2 of the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) study, those treated with clozapine (open label) averaged significantly greater time to treatment discontinuation (10.5 months) compared with patients treated with other antipsychotic medications (2.7 to 3.3 months). In the randomized Cost Utility of the Latest Antipsychotic Drugs in Schizophrenia Study (CUtLASS) trial, clozapine treatment was associated with significantly greater improvement in Positive and Negative Symptom Scale (PANSS) total scores and higher patient subjective ratings compared with risperidone, olanzapine, quetiapine, and amisulpiride.

But according to Kelly, only about 5 percent of patients received clozapine last year in the United States. "It is underutilized in other countries, but in

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the U.S. it is far more underutilized than in Europe and Asia. In Australia, China, and Japan, it is used in upward of 30 percent of patients."

This problem occurs despite the fact that the drug is available in a generic form—so price is not the problem. Moreover, a 2013 report in *Psychiatric Services* by Jessica Goren, Pharm.D., an assistant professor at the University of Rhode Island College of Pharmacy, and colleagues found that polypharmacy was used more consistently than clozapine.

Blood Monitoring Creates Obstacles

What is holding clinicians back?

Undoubtedly the most significant barrier to use of clozapine is the stringent restrictions around blood monitoring. Clozapine was first introduced in the 1970s in Europe, but was withdrawn after the drug was shown to be associated with agranulocytosis—an acute condition involving severe leukopenia. When the FDA approved clozapine, it mandated stringent blood monitoring requiring regular white blood cell and absolute neutrophil counts (ANC).

"For clinicians and systems of care, the logistics of blood monitoring are clearly a disincentive," Kelly explained. Five companies offer generic clozapine, and each has a separate system requiring clinician (or health system) and pharmacy registration. Clinicians must draw patients' blood on a weekly basis, and the white blood count (WBC) and ANC must be reviewed by the pharmacy as well as the clinician before the drug can be continued.

Deanna Kelly

Deanna Kelly, Pharm.D., believes that clinicians are overestimating the risk of agranulocytosis in patients taking clozapine.

At a presentation at the meeting of the American College of Neuropsychopharmacology in 2013, Kelly presented survey data indicating the top reasons why prescribers may not prescribe clozapine to patients who might have benefited. The leading reasons were the need for monitoring and regular blood work; the lack of a centralized system for registering patients was also cited, as was the amount of administrative time associated with registry and blood work.

Clinicians also indicated concerns about side effects such as agranulocytosis, myocarditis, and weight gain. Kelly says that she believes many clinicians overestimate the risk of agranulocytosis. "A lot of physicians are more leery than they should be and think it occurs more frequently than it does," Kelly said. "It's actually quite rare, occurring in less than one percent of patients (approximately 0.86%)."

Agranulocytosis is defined as an ANC of less than 500/mm. Before a patient can start taking clozapine, ANC must be greater than or equal to 2,000/mm and the white blood cell count must be greater than or equal to 3,500/mm; the drug must be discontinued when the ANC is less than 1,000/mm or the white blood cell count is less than 2,000/mm.

*see **Clozapine** on page 40*

Advertisement

People With ASD May Struggle During Transition Into Adulthood

A report from Drexel University highlights a low degree of independence and high feeling of social isolation among teens and young adults with ASD.

BY NICK ZAGORSKI

For all of the attention that the rising prevalence of autism spectrum disorder (ASD) in children has received in recent years, there has been little focus on what happens when children with autism transition into adulthood.

While trying to uncover genes and other risk factors tied to ASD or developing ways to diagnose the disorder as early as possible are laudable goals, Anne Roux, M.P.H., a research scientist at the A.J. Drexel Autism Institute at Drexel University in Philadelphia, says this focus is leaving a large population underserved.

"Autism is a lifelong condition; it does not go away as these children age," Roux told *Psychiatric News*. "And there continue to be some misconceptions, even among professionals, about autism continuing on to adulthood."

Roux believes such misconceptions may contribute to the dearth of knowledge or guidance available to help teens with ASD gain the skills or resources they will need as adults.

Secondary schools do provide many needed services such as counseling, speech therapy, and other developmental programs. There are also federal requirements that adolescents with autism have a transition plan—a vision for the future (for example, enroll in college) and how family, school, and other services help the adolescent accomplish his or her goal—in place by the age of 16.

However, a recent study by Roux and her colleagues suggests that less than 60 percent of adolescents with ASD receive assistance with transition planning from the schools.

These and other findings appear in "National Autism Indicators Report: Transition Into Young Adulthood," a comprehensive guide that draws on data from the National Longitudinal Transition Study-2 (NLTS2). The report provides a snapshot of how people with ASD live, work, go to school, socialize, and make use of health services.

"We wanted to develop something for the decision makers, people who run autism service offices or work in legislative advocacy," said Roux. "This report provides them with important information without having to access and pay for a whole range of journal articles."

The information they collected does not paint a rosy picture. The study found that after high school, only 36 percent of people with ASD went on to receive postsecondary education, 58 percent were employed (although a majority worked part-time and/or earned low wages), and only 19 percent lived independently. In comparison, around 75 percent of high school graduates in the general population enroll in some postsecondary education and half of young adults aged 18 to 24 live away from home.

"Once high school ends, people with autism really start to flounder," said Roux, "even more so than young adults with other intellectual or learning disabilities."

Nicole Matthews, Ph.D., a researcher at the Southwest Autism Research and Resource Center in Phoenix, can attest to the difficulties facing ASD patients as they age. For several years she and colleagues have been assessing adaptive functioning in children and young adults with ASD.

"Adaptive functioning involves the ability to apply one's social, communication, and motor skills to situations in day-to-day life, whether it's being able to dress yourself or knowing how to talk to a supervisor at work," she explained.

And while many clinicians will take adaptive functioning into account when working with patients with ASD, it is not a defining characteristic of this disorder. (While social and cognitive ability is classified during a diagnosis, how these skills are applied in day-to-day life are not.)

Studies by Matthews and her colleagues have found that adaptive functioning lags as people with ASD get older. Their most recent analysis, which was published in March in the *Journal of Autism and Developmental Disorders*, looked at 75 ASD patients aged 16 to 58 and found that while patients showed steady cognitive improvements as they grew older, similar gains were not made in adaptive behavior scores.

"These people are not developing their functional skills at the same rate that their brains are developing," Matthews said, noting that these results continue a trend she found when comparing children with adolescents in a previous study. Specifically, the social and communication skills seemed to stagnate after adolescence, while daily living skills (dressing, cooking, etc.) did continue to grow modestly.

Matthews also found that ASD patients with higher IQs did not fare much better in their adaptive functioning compared with others, suggesting adaptive deficits are not tied to cognition.

"After 18, when autism services stop, we see that so many people with this condition are not in school or work, so they're not in an environment where they can develop their adaptive behaviors," Matthews said.

If there's a take-home message, both Roux and Matthews would agree that parents, teachers, and others should encourage a person with ASD to do as much as possible for themselves at an early age.

"Many parents put a focus on academic skills, but self-sufficiency is a key trait that is holding many people with autism back," Roux said.

"It's not all bleak, however," she continued. "Our report found a subset of patients who have great struggles with their communication skills, but they still can connect with people and attend school or work."

To help others find their way, though, Roux underscored a need for better national data collection of adults with ASD. The NLTS2 used to develop the Indicators Report is currently one of the only large studies tracking the progress of people with ASD over time. PN

The "National Autism Indicators Report: Transition Into Young Adulthood" is posted at http://drexel.edu/autisminstitute/research-projects/research/ResearchPrograminLifeCourseOutcomes/IndicatorsReport/#sthash.cVYfX7l4.dpbs. An abstract of "Adaptive Functioning in Autism Spectrum Disorder During the Transition to Adulthood" is posted at http://link.springer.com/article/10.1007%2Fs10803-015-2400-2.

The Connection Among the Gears of Life

As with everyone else, social and functional success is interconnected in people with autism, and a lack of support during the school years may severely impact the quality of life for adults with autism.

Source: A.J. Drexel Institute

Report Shows That Autism Is Not Just Autism

One of the important clinical findings reinforced in the National Autism Indicators Report is that most people with autism spectrum disorder (ASD) also have the added burden of another mental or physical health problem. A total of 87 percent of youth with ASD surveyed were diagnosed with at least one other health, mental health, or behavioral problem. Attention-deficit/hyperactivity disorder and anxiety were the most common, with each of those disorders found in more than half of youth with ASD. Also, more than three-quarters of youth with ASD (77 percent) were taking at least one type of prescription medication.

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Cardiovascular Risk Factors May Serve As Early Indicator of Cognitive Decline

Lower total brain, hippocampal, precuneus, and posterior cingulate volumes are associated with cardiovascular risk factors and with impaired cognitive function before the onset of clinical dementia.

BY VABREN WATTS

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A study recently published in the journal *Radiology* suggests that subtle differences in regional brain volumes that appear to be related to cardiovascular risk factors may potentially serve as an early indicator of cognitive decline before the onset of dementia.

Researchers from the Keck School of Medicine at the University of Southern California and the University of Texas Southwestern Medical Center led a retrospective study to investigate modifiable cardiovascular risk factors (alcohol consumption, smoking, diabetes, and obesity) associated with regional brain volume changes and their association with preclinical deficits in cognitive performance. The specific brain regions studied included the hippocampus, precuneus, and posterior cingulate cortex—all brain regions involved with cognition.

"We already know that vascular risk factors damage the brain and can result in cognitive impairment," Kevin King, M.D., an assistant professor of radiology at the University of Southern California, said in a press statement. "But our findings give us a more concrete idea about the relationship between specific vascular risk factors and brain health."

For the study, the researchers analyzed data from 1,629 participants who were aged 25 to 73 and enrolled in the Dallas Heart Study from 2000 to 2002. Participants' cardiovascular risk factors were evaluated in an initial baseline visit; brain volumes and cognitive function were assessed seven years later by, respectively, magnetic resonance imaging and the Montreal Cognitive Assessment (MoCA).

The results showed that alcohol consumption and diabetes were associated with smaller total brain volume, and smoking and obesity were associated with reduced volumes in the posterior cingulate cortex. Lower hippocampal volume was associated with previous alcohol consumption and smoking, and lower precuneus volume correlated with alcohol consumption, obesity, and high fasting blood glucose numbers.

Low total scores for MoCA were associated with reduced posterior cingulate volume in participants under 50 and with reduced hippocampal and precuneus volumes in those 50 and over.

"Our findings reveal that lower total brain, hippocampal, precuneus, and posterior cingulate volumes are associated with cardiovascular risk factors and with impaired cognitive performance before the onset of clinical dementia. … even in participants younger than 50 years," the researchers noted.

The researchers concluded that subtle differences in regional brain volumes in midlife may serve as a biomarker for brain insult before the onset of dementia.

"In the future, we may be able to provide patients with useful and actionable information about the impact different risk factors may be having on their brain health during routine clinical imaging," King stated.

The study was funded by the National Institutes of Health. PN

"Cardiovascular Risk Factors Associated With Smaller Brain Volumes in Regions Identified as Early Predictors of Cognitive Decline" is posted at http://pubs.rsna.org/doi/full/10.1148/radiol.2015142488.

JOURNAL DIGEST

BY VABREN WATTS

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Children With ASD Display Different Sniff-Response Pattern

To smell a rose, one may increase airflow through the nose to fully take in the floral aroma. Upon walking into a public restroom, one may do the exact opposite. According to a new study published in *Current Biology*, this natural adjustment to smell may be lacking in individuals with autism spectrum disorder (ASD).

Israeli researchers presented 18 children with ASD and 18 healthy controls with pleasant and unpleasant odors and measured their sniff response to pleasant and unpleasant odors. While the control group adjusted their sniffing within 305 milliseconds of smelling an odor, children with ASD had no such response, the study authors report.

"The difference in sniffing patterns between the typically developing children and children with autism was simply overwhelming," Noam Sobel Ph.D., a professor of neurobiology at the Weizmann Institute of Science, said in a press release.

The sniff response was so different between the two groups that the researchers were able to correctly classify participants as children with and without a diagnosis of ASD approximately 80 percent of the time. In addition, the researchers observed that the worse the children's responses to the odor, the worse the children's social impairment.

"This raises the hope that these findings could form the base for the development of a diagnostic tool that can be applied very early on, such as in toddlers only a few months old," said Sobel. "Such early diagnosis would allow for more effective intervention."

Rozenkrantz L, Zachor D, Heller I, et al. A Mechanistic Link Between Olfaction and Autism Spectrum Disorder. Curr Biol. July 20, 2015; 25(14):1904-10. http://linkinghub.elsevier.com/retrieve/pii/S0960-9822(15)00651-X.

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Questionnaire Can Help Identify At-Risk Drinkers

A study published in *Journal of the American Osteopathic Association* shows that a questionnaire assessing alcohol consumption may be just as or more effective than a blood alcohol content test in predicting at-risk drinking behaviors in trauma patients.

Researchers from Loyola University Medical Center reviewed records of 222 patients, aged 18 and older, admitted to the medical center's emergency department to investigate how the Alcohol Use Disorder Identification Test (AUDIT) fared against the standard blood alcohol content test in detecting at-risk drinking-related trauma. AUDIT is a 10-point questionnaire developed by the World Health Organization to assess alcohol consumption, drinking behaviors, and alcohol-related problems. A blood alcohol level greater than 0 g/dL and an AUDIT score equal to or above eight were considered positive for at-risk drinking. Performance of both tests was indexed against the National Institute of Alcohol Abuse and Alcoholism criteria for at-risk drinking.

Analyzing patients who underwent both the AUDIT and blood test, the researchers found AUDIT to be 20 percent more effective than the blood alcohol test in identifying patients who tested positive for at-risk drinking.

The researchers concluded that although routine testing for blood alcohol level may have a role in the management of trauma cases, it should be reexamined as a standalone indicator of at-risk drinking.

Plackett T, Ton-That H, Mueller J, et al. Screening for at-risk drinking behavior in trauma patients. J Am Osteopath Assoc. June 2015; 115(6):376-82. http://jaoa.org/article.aspx?articleid=2300621.

see ***Journal Digest*** *on page 36*

Reform Bill

continued from page 1

and Eddie Bernice Johnson (D-Texas)—are included in the Senate bill.

For instance, the House and Senate bills both establish a new position of the assistant secretary for mental health and substance use disorders within the Department of Health and Human Services (HHS). The position would have to be filled by a doctoral-level clinician.

The two versions differ on the fate of the Substance Abuse and Mental Health Services Administration (SAMHSA), whose current administrator, Pamela Hyde, J.D., resigned on August 4. The House bill would essentially merge the agency's duties and responsibilities into the new assistant secretary's office, while the Senate version would place the agency under the control of the new assistant secretary.

The House and Senate bills are sufficiently compatible so that if they both pass, a conference committee is likely to work out the remaining differences.

"We are proud to be working with our colleagues in the House," said Sen. Murphy. "These two bills represent the best chance of getting behavioral health legislation passed."

The Cassidy-Murphy bill also looks closely at HIPAA and whether that law prevents clinicians from giving families information about the diagnosis, treatment, or even the whereabouts of relatives with mental illnesses. The bill would not substantially change the law but would provide clinicians with clarifying guidance and an educational campaign about disclosure requirements.

The bill would push for stronger implementation of mental health parity by requiring the departments of Labor, HHS, and Treasury to conduct audits of insurance companies to evaluate compliance. It also includes the establishment of a "nationwide strategy" to address the national mental health workforce shortage.

"This bill gives hope to patients, to families, and to our society and redirects [patients] down a path that ends in wholeness," said Sen. Cassidy, a gastroenterologist.

Other senators have put forth several additional bills that touch on issues related to mental health. Sens. John Cornyn (R-Texas) and Lindsay Graham (R-S.C.) on August 5 introduced legislation that seeks reforms to address the problem of the criminalization of people with mental illness. It has the support of both the National Rifle Association and the National Alliance on Mental Illness.

Aaron Levin

Sen. Bill Cassidy (R-La.; left) says that the Mental Health Reform Act of 2015 will lead to the development of meaningful solutions to improve outcomes for patients and families dealing with mental illness. At right is Sen. Chris Murphy (D-Conn.).

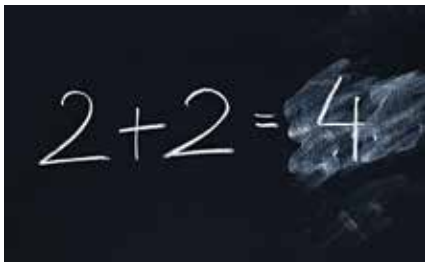
These proposals join another bill introduced by Sen. Lamar Alexander (R-Tenn.) and Sen. Patty Murray (D-Wash.) on July 29 that largely reauthorizes existing mental health programs.

The committees overseeing the legislation—the Senate Health, Education, Labor, and Pensions and the House Energy and Commerce committees—are planning to act after the summer recess. PN

"Cassidy, Murphy Introduce Comprehensive Overhaul of Mental Health System" is posted at http://www.murphy.senate.gov/newsroom/press-releases/cassidy-murphy-introduce-comprehensive-overhaul-of-mental-health-system.

Journal Digest

continued from page 35



Picsfive/Shutterstock

Early-Life Cognitive Ability May Predict Dementia in Late Life

Education—including elementary school performance—and occupational complexity may predict one's susceptibility to the onset of dementia in late life, Swedish researchers reported at the 2015 Alzheimer's Association International Conference held in July in Washington, D.C.

Neuroscientists from the Karolinska Institute and Stockholm University gathered data from 440 adults aged 75 and older with no cognitive impairment to assess if an association exists between elementary school performance, education level, and job complexity and the onset of dementia. Patients' cognitive functions were analyzed at the study's initiation and endpoint nine years later.

Over the course of the study, 163 participants developed some form of dementia. After comparing the results with the participants' elementary school grades in mathematics, reading, geography, history, and writing, the researchers found that dementia risk was doubled in individuals who had the lowest school grades at ages nine or 10, even if they had a more formal education or a job requiring complexity.

Individuals who completed secondary education had a 28 percent lower risk of dementia compared with those with elementary education only. Women in the study who had an occupation that involved high complexity with people (high demands on negotiating, instructing, and supervising) were 60 percent less likely to develop dementia than women with less demanding careers.

"These findings suggest that early-life cognitive ability may be an important predictor of dementia in late life," Hui-Xin Wang, Ph.D., one of the authors on the study, said in a press release.

Wang H, Dekhtyar S, et al. "Childhood School Performance, Education, and Occupational Complexity a Life Course Study from the Kungsholmen Project. Alzheimer's Association International Conference. 2015. https://www.alz.org/aaic/portal/overview.asp.

Jan Havlicek/Shutterstock

Medical Marijuana Ads May Increase Adolescent Cannabis Use

Youth who report seeing ads for medical marijuana may be more likely to have used marijuana or express intent to do so in the future, according to a study by the RAND Corporation

For the study, researchers surveyed more than 8,000 students (grades 6 through 8) from Southern California during 2010 and 2011, asking about their exposure to medical marijuana advertising, marijuana use, and intentions to use the drug in the future. According to the authors, youth who reported seeing ads for medical marijuana were 50 percent more likely to have used marijuana or report higher intentions for future use of the drug than their peers who reported never seeing such ads.

"As prohibitions on marijuana ease and sales of marijuana become more visible, it's important to think about how we need to change the way we talk to young people about the risks posed by the drug," Elizabeth D'Amico, Ph.D., lead author of the study and a senior behavioral scientist at RAND, said in a press release.

Researchers emphasized that the study—the first to explore a link between marijuana advertising and youth behavior—does not directly address whether seeing ads causes marijuana use. However, they added, the findings do raise questions about whether there is a need to revise prevention programming for youth as the availability, visibility, and legalization surrounding marijuana changes.

D'Amico E, Miles J, Tucker J. Gateway to Curiosity: Medical Marijuana Ads and Intention and Use During Middle School. Psychol Addict Behav. June 1, 2015 [Epub ahead of print]. http://www.ncbi.nlm.nih.gov/pubmed/26030167.

MH Reporting

continued from page 1

Illinois Psychiatric Society, and past APA Trustee and Chicago psychiatrist Sidney Weissman, M.D, helped to convene a loose-knit coalition of local and national groups to advocate for changes to the reporting requirements.

The team worked with gun rights groups and others in the state to pass last month's law that amends the original statute in several important ways:

- Raising the reporting age from birth to 14 for individuals diagnosed as developmentally or intellectually disabled.

- Providing right of appeal for individuals who have been reported.

- Limiting reporting to individuals deemed to be "severely" disabled.

"The Illinois State Medical Society is pleased Gov. Rauner signed into law much needed mental health reporting changes related to Illinois' 2013 concealed firearm carry law," ISMS President Scott Cooper, M.D., an emergency room physician, told *Psychiatric News*. "The 2013 statute imposed a rigid reporting threshold for minors from birth through age 18. ISMS received feedback from our members that mandated reporting for all minors required the reporting

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of patients with issues that sometimes resolve during cognitive maturation.

"Working with the Illinois Psychiatric Society, we successfully supported changes that limit the mandate to age 14 and older—an age threshold when developmental and intellectual disability conditions generally stabilize and, therefore, can be sufficiently evaluated," Cooper said. "ISMS-backed changes also pushed back the reporting window from 24 hours to one week for patients who are not identified as a clear and present danger. This type of issue can often be wrought with controversy, but a strong bipartisan contingent of Illinois lawmakers backed our bill. These very practical changes are medically appropriate and ensure a more thoughtful reporting process."

The original 2013 statute and its rigid reporting requirements raised issues about the complex interface of mental illness, dangerousness, stigma, gun rights, and clinical appropriateness.

Last year, Steven Hoge, M.D., chair of the APA Council on Psychiatry and Law, told *Psychiatric News* that "legislation based solely on diagnosis is discriminatory and is based on unfounded prejudice toward those with mental disabilities." He added, "The extension to nonajudicated admissions would sweep into the gun registries many voluntary patients and those who may be determined at a legal proceeding not to have

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been dangerous. To the extent that inclusion of those with mental illness has any rational basis, it must be restricted to those who have been adjudicated to be dangerous." (See *Psychiatric News*, April 4, 2014).

And Weissman said of the original statute that it placed clinicians in the "absurd" position of having to report 2-year-old children who may demonstrate signs of potential developmental delay or autism.

The newly passed law, amending the reporting requirements, is an improvement, but still stigmatizes mental illness, Weissman said. "What the act does is change the reporting requirements to the Illinois Department of Human Services for individuals with developmental disabilities by raising the age to 14," he told *Psychiatric News*. "If someone is reported, he or she can appeal the designation that they have a disorder that prevents them from obtaining a gun. And if an examiner supports that they have only a 'mild' disability, they can obtain a gun.

"The change in the law is not as strong as I would like but it moves the reporting age to adolescence and offers a route for appeal," he said. "In essence, the restriction would hold only for individuals with severe disabilities. That's better than where we started with the state creating a list of everyone from birth who has a disability when the diagnoses of children can change. The stigma is, however, still there." PN

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Clozapine

continued from page 33

There is a further wrinkle, complicating access to the drug for a segment of the population: Africans and African Americans typically have a lower WBC, a phenomenon that has been termed "benign ethnic neutropenia" (BEN).

"Our norms have been developed for people of European descent," Kelly explained. "So this is problematic and leads to an underprescribing in African-American populations and to early termination of the drug when it is prescribed."

Kelly says European countries have used a modified blood count for patients of African descent, enabling them to successfully treat patients using clozapine with no increased risk of agranulocytosis.

Kelly currently has an NIMH grant to study the use of clozapine in 250 African and African-American patients whose blood counts do not meet the cutoff under current guidelines. The success of the study could lend support to a push for modified standards for this subgroup.

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Culture Change Occurring

Kelly described changes on a number of fronts that she thinks may begin to lift the barriers to prescribing clozapine.

Researchers are closing in on a possible genetic marker for agranulocytosis, a development in "personalized medicine" that could help clinicians identify those patients most at risk—and reassure clinicians about prescribing to others. Residency programs are also increasingly adopting the medication and training their residents in how to use it, so that a new cadre of young psychiatrists will enter the field aware of the effectiveness of clozapine.

In an effort to reduce the administrative burden associated with clozapine registration and monitoring, several researchers have petitioned the FDA to develop a centralized registry system. Kelly also said that MPRC is working with the University of Maryland's engineering department to develop a "point of care" finger-prick mechanism that would allow for nearly instantaneous, in-office blood monitoring.

Finally, policymakers and health care systems operating in today's environment are ever more interested in delivering value—high quality and lower costs—so clozapine for treatment-resistant patients and other potentially costly patients will be more attractive.

"Clozapine can save thousands of dollars for health care systems, so there is a benefit for the patient and for the health care system generally," Kelly said. "In all of these ways, things are happening that can slowly change the culture so that this medication can be more available." PN

"Effectiveness of Antipsychotic Drugs in Patients With Chronic Schizophrenia" is posted at http://www.nejm.org/doi/full/10.1056/NEJMoa051688.

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