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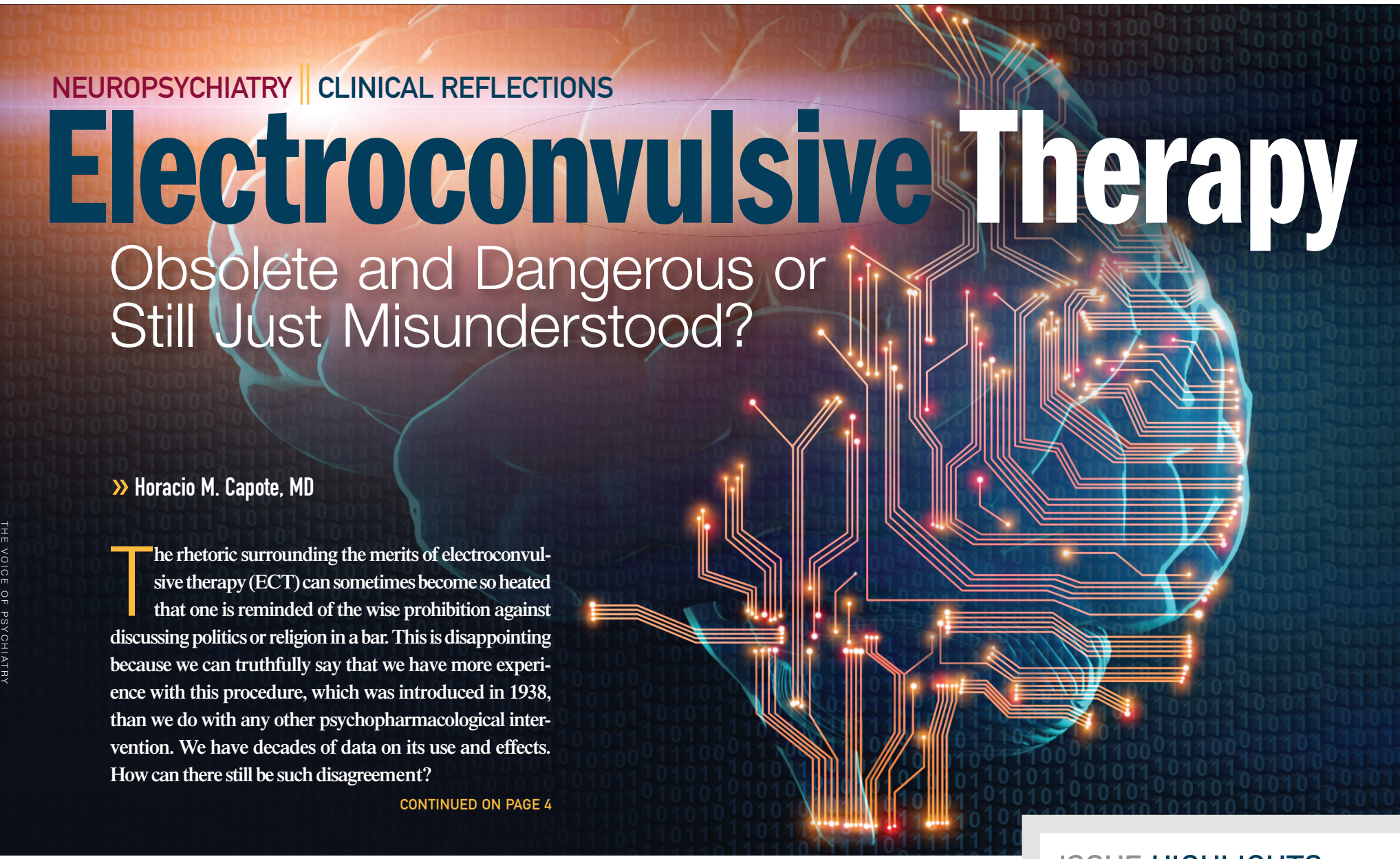
NEUROPSYCHIATRY || CLINICAL REFLECTIONS

Electroconvulsive Therapy

Obsolete and Dangerous or Still Just Misunderstood?



» Horacio M. Capote, MD

The rhetoric surrounding the merits of electroconvulsive therapy (ECT) can sometimes become so heated that one is reminded of the wise prohibition against discussing politics or religion in a bar. This is disappointing because we can truthfully say that we have more experience with this procedure, which was introduced in 1938, than we do with any other psychopharmacological intervention. We have decades of data on its use and effects. How can there still be such disagreement?

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WHY PSYCHIATRISTS ARE PHYSICIANS FIRST

The Other Side of the COVID-19 Crisis: The Silent, Socially Phobic Minority

» Sharon Packer, MD

As the coronavirus disease 2019 (COVID-19) crisis continues, we hear more and more about the current—and projected—mental health fallout from illness, lockdown, job loss, forced relocation, loneliness, loss of friends and family, and death. Data about the direct neuropsychiatric sequelae of COVID-19 infection in addition to the indirect social or economic consequences are also mounting. Yet we do not hear about individuals with social anxiety disorder, or individuals on the high end of autism spectrum disorder (ASD), who are also socially anxious and relieved to be working from home.

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ISSUE HIGHLIGHTS

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FROM THE CHAIRMAN

Two Sides to Every Coin

A penny for your thoughts, reader? This issue of *Psychiatric Times*™ encourages psychiatrists to consider their convictions and assumptions on some tough issues as experts examine both sides of the coin.

First, our experts explore electroconvulsive therapy (ECT). Around for more than 80 years, ECT is one of the most hotly contested treatments in modern psychiatry. Although early iterations were not ideal, progress and research made way for improvements—but are these advances good enough? It depends on whom you ask, as passionate advocates continue to debate the risks vs benefits on both sides of the equation. As with good research, the back-and-forth is a positive: A healthy dialogue encourages clinicians to consider the tools at their disposal and find the most appropriate treatment(s) for each patient.

This issue's contributors remind us that when it comes to diagnosis and treatment of psychiatric disorders, finding the best tool can be the toughest part of a task. It is important to consider and balance the pros and cons, especially in psychopharmacology. Clinicians must consider availability, cost and insurance coverage, interactions with other medications, and potential side effects associated with each drug in question.

In our first Exploring Side Effects Special Report, Sheldon Preskorn, MD, selected several common challenging effects to help readers better choose appropriate medications and manage the "extra" effects they may cause. The good news in all this: Sometimes clinicians flip the coin and find that an unintended effect (like sedation) actually works in the patient's favor.

What happens when the 2 sides mirror each other? In his conversation with Nev Jones, PhD, Awais Aftab, MD, toys with this notion while exploring how schizophrenia experiences and clinical relationships change when a person plays both roles. According to Aftab, Jones' insights and unique perspectives have not only advanced the conversation but also empowered and helped countless patients.

We hope these and the other articles in this issue inspire you to look at both sides of the coin as you strive to provide the best care to your patients, and we want to know what you think. Share your two cents by emailing us at PTEditor@mmhgroup.com. ❐

Mike Hennessy Sr
Chairman and Founder, MJH Life Sciences™

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COVER STORIES

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SPECIAL REPORT

Exploring Side Effects

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FROM THE EDITOR

No Free Lunch

John J. Miller, MD | Editor in Chief

The phrase "no free lunch" has its root in the mid-1800s United States. Beginning in that time period, bars and saloons offered free food at their establishments as long as you bought a drink. The merchants knew that their generous investment in free food for their customers would pay for itself many times over with the profits made from the beverages. Simply put, nothing is for nothing.

In the practice of medicine, we are all too familiar with this simple concept: No matter what benefit our treatment plan provides for our patients, there is always a cost. Our ethical responsibility is to provide informed consent to our patients about the potential benefits, side effects, adverse effects, and rare serious risks from any agreed-upon treatment plan. Ideally, our menu of possible treatments should be comprehensive and should include many elements that go beyond the scope of our expertise, including the option of no treatment.

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A Case Study of Depression

Let's look at a common psychiatric disorder—a major depressive episode—and review the treatment complexities that are involved. Our first task is to complete a comprehensive psychiatric evaluation, collecting a treasure trove of information that often directs our recommended treatment options. We must consider the many possible etiologies that, on the surface, look like a straightforward major depressive episode, such as: various medical conditions, newly started medication or over-the-counter remedy, substance-use disorder, drug withdrawal, bereavement, an adjustment disorder, or depression secondary to another primary psychiatric disorder (such as obsessive-compulsive disorder or an anxiety or sleep disorder).

Once we have established that our patient indeed is having a primary major depressive episode, the next task is to differentiate if it is secondary to unipolar depression or bipolar depression, as the treatment recommendations will be very different for each.

Let us review a partial list of the possible treatment interventions (**Table**).[1] Evidence exists to support each of the listed interventions, and our patient may have a strong preference that may not include treatment with us. For many patients, a combination of several of these treatment modalities can be initiated concurrently. Over time, especially if the depression is treatment resistant, additional treatments may be explored until 1 or more of the following occurs for our patient: They reach the ideal goal of full remission from their depressive symptoms; improve from the simple passage of time; have a major change in life circumstances that helps propel them out of their depression; fire us (and hopefully see another clinician); or accept the persisting residual symptoms; or dies.

So, what about no free lunch? Each of the listed treatment interventions, including the patient's option of no treatment, is accompanied by a plethora of potential benefits side effects (also known as adverse events), and, in some cases, the possibility of serious and even life-threatening risks. With no crystal ball, our responsibility is to inform our patient of all these possibilities and ensure that they are competent and understand this dis-

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cussion. Then, we agree upon a plan with appropriate monitoring. Over my 30 years of clinical practice, my patients have taught me about many unusual side effects that I never could have predicted. Additionally, it is not uncommon that I am surprised by the treatment choice that a patient makes. My clinical philosophy has evolved to include the recognition that the more tools we have in our treatment toolbox, the greater the likelihood that we will ultimately find a treatment (or combination of treatments) to improve a given patient's functioning and quality of life.

In this issue, we present 2 important series of articles related to psychiatry's toolbox: a debate over the use and effectiveness of electroconvulsive therapy (ECT), and an exploration of psychiatric medications' possible side effects. In the spirit of these articles, I would like to share a few of my memorable patient responses to treatment.

ECT for Psychotic Depression

I was in private practice 25 years ago when I was asked to evaluate a man, aged 72 years, who was brought to me by his family for an emergency evaluation. He had a history of recurrent severe major depressive episodes, often complicated by mood-congruent psychotic delusions. Because this man presented virtually mute to my office, his family provided his history and current symptoms.

According to the family, he had suffered 5 previous severe depressive episodes over the prior 20 years and had not responded to aggressive trials of pharmacotherapy. There were no identifiable psychosocial stressors; when he was not depressed, he lived independently and was high functioning. His depressive episodes began unpredictably and rapidly progressed to severe depression accompanied by hopelessness, worthlessness, helplessness, amotivation, and poor functioning. He ultimately would stop eating, make no eye contact, and sit at home "like a log." In addition, he developed delusions that he was full of sewage and rotting from the inside out. He believed he would die, but he was not suicidal.

Table. A Partial List of Treatment Modalities for Depression

- Quality sleep
- Good nutrition
- Regular aerobic exercise
- Good social supports
- Mindfulness meditation
- Relaxation training
- Spiritual support
- Light therapy
- Cognitive behavioral psychotherapy
- Interpersonal psychotherapy
- Supportive psychotherapy, individual or group
- Other psychotherapy
- Antidepressant medications
- Antidepressant medication augmentation
- Nutraceuticals
- Herbal food supplements
- Treatment of comorbid substance abuse
- Treatment of comorbid medical conditions
- Electroconvulsive therapy
- Repetitive transcranial magnetic stimulation
- Vagal nerve stimulation
- Deep brain stimulation

This was a psychiatric emergency, as he had stopped eating and drinking and was virtually mute with delusions compromising his competence. I arranged for admission to our local community hospital's inpatient psychiatric unit, and my colleague, who had treated the patient for similar presentations with ECT in the past, began ECT the following morning.

There was a dramatic change after the patient's first ECT treatment: He wanted a meal, and his delusions virtually vanished. After 3 ECT treatments in the hospital, he significantly improved and continued his course of ECT as an outpatient.

I eventually learned that this was his usual presentation. He never responded to a litany of medications, but he did respond rapidly to ECT treatments. His long-term treatment consisted of 1 ECT treatment a month. However, he tested the fates every once in a while and chose to stop his ECT

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Electroconvulsive Therapy

Continued from Cover

It should come as no surprise that stigma is an important underlying theme in this discussion. ECT can still sound frightening and conjure up images out of a horror movie. We know our patients contend with negative opinions and perceptions from the general public, acquaintances, and friends. However, the problem becomes all the more salient when the stigmatization involves professionals, whether they be pharmacists, physicians in other specialties, or indeed, even psychiatrists.

What we need is good data, clear analysis, and sound clinical judgement. Ultimately, no treatment in medicine is completely apropriate for all individuals. The trick is to find the right treatment for the right person at the right time. We often make the mistake of generalizing our experiences to all patients. It may be that some patients benefit more from ECT than others. Perhaps there are even genotypic differences that could help predict which patients are most likely to benefit from this treatment.

Despite the controversy and lingering stigma, ECT has undoubtedly been foundational in the field of interventional psychiatry. It is firmly ensconced in our armamentarium, along with its younger siblings transcranial magnetic stimulation, vagal nerve stimulation, deep brain stimulation, and intravenous ketamine. I have no doubt that as we continue to progress, the list of potential interventions will continue to grow. My hope is that we will become better at identifying the best treatments for each particular patient. We must remember to make our treatment recommendations based on the evidence and, to the greatest extent possible, to do so consistently.

We are certainly fortunate to work in a field so tightly connected to the human experience. Differences of opinions and perspectives present a great opportunity to learn. I have certainly benefited from the following Point-Counterpoint articles.

We encourage you to read these thoughtful pieces, consider the data, and share your viewpoints with us at PTEditor@mmhgroup.com.

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POINT

ECT: Dangerous on Either Side of the Pond

» John Read, PhD, Sarah Hancock, MS, CRC, Sue Cunliffe, MBchB, RCPCH

Although electroconvulsive therapy (ECT) is still used on about a million individuals annually, a recent review found "large variation between continents, countries and regions in utilization, rates and clinical practice."[1] For instance, there is a 47-fold difference in usage between the highest and lowest utilizations regions of England.[2]

In June 2020, this article's first author published his fifth review of the ECT literature since 2010.[3,4] The most recent review[4] evaluated the quality of 5 meta-analyses that claimed ECT was effective and safe, as well as the quality of the placebo-controlled studies that had been cited by the meta-analyses. (In these studies, placebo included the general anesthetic without the electric shock.) There have only been 11 placebo-controlled studies of ECT for depression, all of which were conducted before 1986.

The 5 meta-analyses often cited by critics, which included between 1 and 7 of the 11 studies, paid little or no attention to the studies' multiple limitations **(Table)**.[3]

The reviewers concluded that:[3]

> ***The quality of most SECT-ECT studies is so poor that the meta-analyses were wrong to conclude anything about efficacy, either during or beyond the treatment period. …Given the high risk of permanent memory loss and the small mortality risk, this long-standing failure to determine whether or not ECT works means that its use should be immediately suspended until a series of well designed, randomized, placebo controlled studies have investigated whether there really are any significant benefits against which the proven significant risks can be weighed.***

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COUNTERPOINT

ECT: An Effective and Safe Treatment

» Michael E. Henry, MD

The article by John Read, PhD, and colleagues argues in favor of suspending the use of electroconvulsive therapy (ECT) due to a lack of efficacy data and unacceptable adverse effects, specifically, brain damage.[1] Unfortunately, the analysis is based on studies conducted prior to the modern era of ECT, and it draws on a limited slice of the available safety and efficacy data for ECT. More recent studies have found key areas of efficacy **(Table)**.

Psychiatric Efficacy

The selection criteria used by Read and colleagues were limited to older studies (1956 to 1985) and critiques of the quality of the data. Thus, the piece is judging clinical trial designs from the 1980s and earlier, using 2019 standards. It is no surprise that the included studies do not utilize methodology developed after the studies were completed. More importantly, the analysis did not include reports that compare different types of ECT, and comparisons of ECT with pharmacotherapy were also not included. This excludes most of the recent meta-analyses and clinical trials of ECT, which have used state-of-the-art clinical trial design. For example, a recent meta-analysis conducted by Tor and colleagues compared ultrabrief pulse right unilateral (RUL) ECT with brief pulse RUL ECT.[2] They found remission rates of 44.9% for brief pulse right unilateral ECT vs 33.8% for ultra-brief pulse RUL ECT (OR, 0.71; 95% CI, 0.51-0.99; $P = .045$). Their meta-analysis showed that brief pulse caused more cognitive adverse effects than ultrabrief pulse, but there were no data after the acute course.

Since ECT is considered to be an established treatment, it can be used as an active comparator in a noninferiority paradigm, avoiding the ethical dilemma of treating very ill patients with a placebo treatment. As such, Helle K. Schoeyen, MD, PhD,

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The review's conclusion that there is no evidence ECT prevents suicide, as often claimed, has been unequivocally confirmed by a study of 14,810 patients who received ECT and 58,369 controls.[5] Patients in the ECT group were 16 times more likely to die by suicide over 12 months than the ECT patients. Even after controlling for a range if mediating variables, the ECT patients were still 1.3 times more likely to attempt suicide.

The exact incidence of brain damage remains unknown. If brain damage is defined as memory loss persisting at least 6 months after the last ECT, findings range from 12% to 55%.[6,7] This damage is more common in women and older individuals,[5] and these groups receive ECT disproportionately.[2,8] While there are many accounts of devastated lives on social media, examples in the published scientific literature are less common. One example states[9]:

> *With each shock treatment, I felt more and more of myself slipping away. I couldn't remember things, particularly the immediate past, but eventually even the more distant past had been erased. I was frightened by this. I thought, 'if I don't know what I've done or where or I've been, then who am I? A person's memories are her identity. Take them away, and you take away her sense of self.'*

Advocates of ECT treatment deny it causes brain damage, although a manufacturer of ECT machines includes "permanent brain damage" as a risk.[10,11] Others acknowledge memory loss but blame the depression, not the electricity, even after a review concluded that "There is no evidence of a correlation between impaired memory/cognition after ECT and impaired mood, much less a causal relationship,"[12] a conclusion subsequently confirmed in a study by ECT advocate Harold Sackeim, PhD.[6]

The class action lawsuit currently being prepared in the United Kingdom (UK) is focused not on the memory loss and brain damage per se, but on the failure of psychiatrists to inform patients of that risk.[13]

The risk of death is greater than 1 per 10,000 patients noted by organizations like the American Psychiatric Association.[3,8] The leading cause of death is cardiovascular failure.[8] A review of 82 studies with more than 100,000 patients, found that 1 in 50 patients experienced "major adverse cardiac events."[14] In addition, there are other mortality risks, which are higher for older individuals in the target age group for ECT, and are associated with general anesthetic procedures.

The review of meta-analyses[3] received wide media coverage. Although some psychiatrists attacked the review, some patients feel vindicated by the findings.

The United States

One of the authors (Hancock) has undergone more than 100 ECT procedures in the United States.

Since the first device classification hearing in 1978, the FDA has requested premarket approval (PMA) electroencephalogram studies (and more recently functional magnetic resonance imaging) to justify device reclassification. Despite never having received PMA data for ECT, the FDA convened a closed hearing during 2018 and reclassified ECT devices from higher risk to moderate risk.[15] This reclassification occurred less than 3 months after ECT machine manufacturer Thymatron published its regulatory update, listing "permanent brain damage and permanent memory loss" as risks.[10,11] Having never undergone PMA safety testing, ECT is unstandardized. Each ECT experience (positive or negative) is therefore just anecdotal evidence.

Psychiatrists, who are not required to study the neuropathology of repetitive high electric field strength on brain tissue, are naive to the compounding microstructural damages only visible with proper staining techniques and under a microscope. Consequently, many psychiatrists are liable to miss the cellular, microvascular, neuronal, and voltage-gated ion channel damage that is invisible on standard brain scans.[16-19]

In 82 years of ECT use, the field of psychiatry has not conducted long-term studies of patients to identify ECT's functional impact on quality of life or aging. Modern research in repetitive brain injury sheds light on the realities faced by millions of ECT recipients. Bennet Omalu, MPH, a neuropathologist who identified chronic traumatic encephalopathy in National Football League players, stated that, where they exist, functional injuries resulting from ECT must be considered as both repetitive brain injury and repetitive electrical trauma.[20]

Unlike standard documentation required to justify insurance reimbursements, Medicare reimburses ECT "providers who failed to report quality data."[21] In other fields of medicine, if a procedure is not documented with quality data, it is denied. Yet the reimbursement rate for fiscal year 2021 for "providers who fail to report quality data" is more than the reimbursement rate for properly documented ECT in FY 2020.[22]

Given ECT's national reimbursement practices, it is unsurprising that the Substance Abuse and Mental Health Services Administration's National Directory of Mental Health Treatment Facilities ECT provider list jumped from 335 clinics in 2018 to 449 in 2020.[23] The 34% increase in US hospitals providing ECT[24] since device reclassification may reflect what happens when hospitals identify an unregulated income source.

Regulating ECT is challenging without an accreditation process to monitor providers. No one knows how many Americans receive ECT each year, let alone how many treatments each individual receives or how closely providers space treatments. This is a troubling dilemma considering Thymatron's regulatory update lists the number of treatments

EXPERTS

Dr Read *is professor of clinical psychology at the University of East London. He is chair of the International Institute for Psychiatric Drug Withdrawal and editor of the scientific journal Psychosis. He has authored several books and more than 200 research papers.*

Ms Hancock *is a nationally certified rehabilitation counselor and former Clinical Rehabilitation Counseling and Clinical Mental Health faculty member at San Diego State University. More than a decade ago, she received 116 ECT treatments. She now lives with long-term neurological sequalae of repeated exposure to high electrical fields.*

Dr Cunliffe *was a pediatrician until she left her job after undergoing ECT. She has become an advocate for other patients who have received ECT.*

Table. Issues With the 11 Placebo-Controlled ECT Studies for Depression[3]

Number of studies that describe their process of randomization	4
Number that are convincingly double-blind	0
Number that selectively report only some of their findings	5
Number that include patients' assessments	4
Number that assess patient quality of life	0
Average number of individuals in the studies	37
Number (out of 11) that found ECT superior to simulated ECT (SECT) at the end of treatment	4
Number that found no difference between ECT and SECT	5
Number that found mixed results	2
Number finding that ECT beat placebo beyond the end of the treatment period	0

POINT

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received, and closely spaced treatments as 2 of the 7 independent risks, recognized by the APA, as being related to "permanent memory loss or permanent brain damage."[10]

The United Kingdom

The third author of this piece (Cunliffe) has also undergone ECT. She was a doctor until 2005 when she suffered devastating brain damage from ECT. She has improved over the last 15 years, but she reports disabling neuronal fatigue. She can never work again, and she has lost her independence. Nonetheless, Cunliffe feels fortunate, as she is the only ECT patient she knows who received has neurorehabilitation. She has dedicated herself to preventing the distress of others.

After being admitted to the hospital following coercive abuse, Cunliffe was persuaded to undergo 20 sessions of ECT. Her medical notes clearly demonstrate a lack of monitoring. To the contrary, the notes document her complaints about deteriorating memory, speech slowing down, feeling continuously sedated, and having issues with motor and coordination skills. Instead of reviewing the treatment plan, the dose was increased from 90 millicombs (mCs) to 700 mCs.

Cunliffe spent 10 years researching ECT practice and the UK's ECT Accreditation Service (ECTAS), which is run by the Royal College of Psychiatrists (RCP). She found a 2015 ECTAS patient survey showed that 19% of patients who received ECT treatment were affected by permanent memory loss; however, this figure is never quoted and ECTAS continues to accredit units that are neither offering informed consent nor monitoring for side effects.[25] In the UK, units can continue to operate without accreditation and without meeting the minimum ECTAS standards. Cunliffe has spoken publicly about her story, including at one of the famous Maudley debates at the Institute of Psychiatry, proposing the motion "ECT has No Place in Modern Medicine."[26,27]

According to Cunliffe, the RCP's response to her recent letter outlining the serious flaws in the ECTAS accreditation service shows that they have no intention of improving standards of care or consent. She added that RCP President Adrian James, FRCPsych, MSc, refused to meet with her and other victims.

A UK coalition of 40 ECT survivors and family members, mental health professionals (including psychiatrists), and researchers have written the health minister calling for an independent enquiry into the practice of ECT.[28] The call has been endorsed by many members of Parliament, the National Counselling Society, the Association of Clinical Psychologists UK, the Council for Evidence-based Psychiatry, and, importantly, Headway, the brain injury association. The UK's largest mental health charity, Mind, stated[29]:

> ***At Mind, we back calls for a comprehensive review into the use of ECT, a potentially risky physical treatment that is still used to treat mental health problems in rare cases. We know that some people have found it effective for improving symptoms of mental health problems—particularly depression—when nothing else has worked. However, we still don't know why it works or how effective it is. Some people who have had ECT may have found they experience adverse side effects that are worse than the symptoms of the problem they're trying to treat, including short term or longer term memory loss.***

Concluding Thoughts

We recognize that ECT advocates have their patients' best interest at heart. However, an evidence-based approach to psychiatry dictates that this controversial treatment be suspended pending research that meets 21st century standards to determine whether there are any benefits to offset the proven adverse effects in comparison to placebo. At the very least, to comply with the ethical principle of informed consent, the minority of psychiatrists who continue to use ECT must tell potential ECT recipients that: there is no evidence that it is better than placebo beyond the end of the treatment period, there is no evidence that it saves lives, and studies have found that it causes persistent or permanent memory loss in 12% to 55% of patients, with particularly high rates among women and older individuals.

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COUNTERPOINT

Continued from page 4

Table. Key Efficacy Findings From Recent Studies

■ Lower depression scores
■ No chemical or structural brain damage
■ Improved cognitive function
■ Increased hippocampal volume
■ Increased white matter integrity

and colleagues compared brief-pulse RUL ECT to algorithm-based pharmacology in a cohort of patients with treatment-resistant bipolar depression.[3] At the end of a 6-week trial, the Montgomery-Asberg Depression Rating Scale scores in the ECT group were 6.6 points lower than those of the pharmacological treatment group (95% CI, 2.5-10.6; $P = .002$). In a novel treatment design, Charles Kellner, MD, and colleagues compared continuation ECT augmented by venlafaxine with lithium plus venlafaxine in geriatric depression.[4] At 24 weeks, the ECT group had statistically significantly lower depression scores (Hamilton Depression Rating Scale score, 4.2; 95% CI, 1.6-6.9) than the medication only group. If ECT were not more effective than placebo, as Read and colleagues proposed, there would be no difference in the efficacy of different types of ECT, nor would ECT perform better than standard pharmacology. Taken together, these studies support the acute and sustained clinical efficacy of ECT and are inconsistent with the lack of efficacy proposed by Read and colleagues.

The main safety concern raised by Read and coauthors is that ECT causes brain damage. Specifically, they argued that the changes to autobiographical memory and the memory difficulties reported by patients following ECT treatment are evidence of brain damage. They also cited "microvascular, neuronal, voltage-gated ion channel damage that is visible on standard brain scans" as further buttressing this argument.[1] The piece also leverages an article from 1946,5 a letter to the editor,[6] a study in frog muscle,[7] and the minutes from a traumatic brain injury advisory board meeting[8] to support the brain damage claim. However, it does not appear that the more recent studies that fail to show chemical or structural evidence of brain damage with ECT,[9] nor those that suggest improvement in cognitive function relative to baseline following ECT.[10]

Brain and Heart Safety

Perhaps the most interesting finding regarding the memory effects of ECT is that the hippocampal volume, which has been shown to decrease in major depression, increases following a course of ECT treatment.[11] This finding has been supported by 2 recent studies. Leif Oltedal, MD, PhD, and colleagues reported results from a multicenter imaging trial of the effects of ECT on hippocampal volume using structural magnetic resonance imaging in 281 patients from the Global ECT-Magnetic Resonance Imaging Research Collaboration.[12] Their results showed an increase in hippocampal volume in participants receiving unilateral or bilateral ECT, while the 95 control participants who did not receive ECT did not show changes between the 2 scans.

This finding was corroborated by a systematic review of ECT's effects on the brain's structure by Krzysztof Gbyl, MD, and Paol Videbech, MD, DMSc.[13] They reviewed 32 studies with 467 patients and 285 controls, and drew a number of interesting conclusions. None of the studies they reviewed reported evidence of brain damage. Instead, the studies found that hippocampal volume as well as other cortical and subcortical regions showed increases in volume. The authors noted that the increases in brain volume tended to occur in regions of the brain thought to be involved in the pathophysiology of depression.[13] They also reviewed 5 diffusion tensor magnetic resonance imaging studies with a total of 92 patients and 62 controls, and the changes they found indicated increased, not decreased, white matter integrity between the frontal and temporal lobes after ECT. These finding are also consistent with results from a retrospective chart review study by my research group. We were able to identify 100 patients who had received at least 50 ECT treatments, 36 of whom received 100 ECT treatments as part of an acute course of ECT that transformed into maintenance treatment. Cognitive function as measured by the Montreal Cognitive Assessment essentially did not change in either group.[14] In short, in an illness thought to result from decreased prefrontal cortical activity and connectivity to limbic structures, there is consistent evidence of increased volume and connectivity, not atrophy, following state-of-the-art modified ECT, which is corroborated by the available cognitive data.

The other safety concerns raised were an increased risk of major cardiac adverse events and an increased risk of death from ECT. While ECT does cause dramatic swings in heart rate and blood pressure, these effects are transient and well known. Further, the swings can be managed with thoughtful pretreatment, assessment, and careful monitoring during the procedure. Consistent with this approach, Niels Tørring, MSc, PhD, and colleagues performed a systematic review and pooled data analysis from 15 studies and found a death rate of 2.1 per 100,000 treatments.[15] This is a decrease from the 4 per 100,000 treatments previously reported.[16] Given the population that typically receives ECT, this decline in mortality likely reflects improvements in the medical management of chronic medical conditions and anesthetic technique. These data clearly do not support the assertion of an increased risk of death with ECT.

Concluding Thoughts

In summary, the concerns that were raised about ECT are commonly shared by the general public, and they are based on data from older studies that used the methodology now considered outdated both in terms of ECT practice and analytic techniques. Read and colleagues did not consider more recent, state-of-the-art clinical trial data that corroborate more than 75 years of clinical experience supporting the efficacy of ECT in a population of patients who suffer significant disability, increased medical comorbidity, and increased mortality.

EXPERT

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The Other Side of the COVID-19 Crisis

Continued from Cover

Free from the social pressures of the job site, many of these individuals report feeling less distress overall. They are not necessarily free from anxiety altogether; their anxiety focuses on fears of being forced to return to offices when the epidemic ends. They are perturbed by the prospect of sacrificing the social obligation-free sanctuary that they have serendipitously and unexpectedly enjoyed during this strange time.

The January 2, 2021, edition of the *Wall Street Journal* (*WSJ*) included a survey taken of a group of workers; it found 80% wanted to continue to work remotely at least part of the time after the pandemic. Individuals with social anxiety disorder presumably comprise some small part of the 80%, yet it is unlikely that all 80% of the *WSJ* sample want to work remotely for the same reasons as the patients I am discussing. The article, "Is a Home Office Actually More Productive? Some Workers Think So," detailed the motivations of generic employees, focusing on financial and family drivers of their choice of workplace, but does not break down data by personality type or DSM diagnosis.[1]

Psychiatric Fallout

Before commenting on experiences relayed to me by the aforementioned subgroup of my patients, let us first look at the better publicized psychiatric fallout from the COVID-19 crisis. Centers for Disease Control and Prevention (CDC) statistics from late June 2020 state that 40% of the American population were facing COVID-related depression, anxiety, stress-related disorders, or substance use.[2] A recent *JAMA* article went several steps further, and identified high-risk groups, noting that financial stressors, including epidemic-related job loss, along with limited savings to cushion the blow, increased an individual's risk for mental health sequelae.[3]

The data about increasing drug and alcohol use are equally grim from a medical and mental health point of view, given that liquor sales skyrocketed during lockdown, as per several articles in the *WSJ*.[4-6] Anonymous liquor store owners have said that demands for their stock during the epidemic rivals sales seen only during weeks between Christmas and New Year's.

We can estimate the long-term mental and medical impact of alcohol overuse, even though many medical consequences of alcohol overuse do not surface for 20 years. The potentially lethal cardiovascular, oncological, as well as gastrointestinal consequences are not as obvious or immediate as motor vehicle accident-related deaths or fatal subdural bleeds from slip-and-fall accidents that occur while intoxicated. Yet those later sequelae are just as deadly in the long run, so much so that alcohol-related mortality is twice that of the better-publicized opioid-related mortality, with alcohol claiming over 95,000 lives per year,[7] compared with 46,800 annual opioid overdoses.[8] Opiate overdoses have already exploded. If we extrapolate from data related to September 11, 2001, when substance abuse disorders in Manhattan remained high long after posttraumatic stress disorder symptoms subsided,[9] we can anticipate (but not guarantee) similar consequences from this epidemic.

Alarmist claims about projected increases in suicide hit the press, having borrowed data from CDC websites and embellished it with artistic license not appropriate to scientific studies. Some of the most ominous predictions have been refuted; after reading the fine print, we can see that these highly publicized numbers about suicide pertain to individuals who were contemplating suicide rather than to completed suicides. In response to those data, some British medical journals reminded readers that "supposition, however, is no replacement for evidence," and that "the literature on the effect of COVID-19 on suicide should be interpreted with caution."[10] Although reports of increased suicidal ideation since the start of the COVID-19 crisis were striking enough to enter the CDC logs, we must recall that suicidal ideation is not the same as attempted suicide, and that attempted suicide is not identical to completed suicide.

In addition, a New York City Health Department pamphlet "Mental Health in New York City: Impact of COVID-19 on Mental Health in New York City," published in September 2020 and emailed widely in January 2021, offered even more information.[11] It dissected the data, breaking it down by race and ethnicity, and ferreted even more risk factors for anxiety and depression. It focused on the greater New York area, where most of my patients reside. Similar to the *JAMA* data, the 3 top drivers of psychological distress included "feeling cut off or distant from people," "job loss or reduced hours," and "overwhelming or above-average financial stress." Interestingly, many individuals on the spectrum specifically prefer to be "distant from people," although individuals with pure social anxiety disorder often lament their limitations in partaking in such social activities.

Different Degrees of Stress

What do these data tell us about the socially phobic individuals who report less stress during the lockdown, but experience more stress when contemplating the possibility of a return to onsite work? Let me point out that although the data showed that 40% of the American population endorsed symptoms of depression, anxiety, or trauma during the shelter-in-place mandates and work-from-home policies, this is not the same as saying that 100% of the population is suffering similarly.[2]

My clinical experience indicates that some individuals are benefiting from limits on social interactions; they prefer the work-at-home policies and appreciate convenient excuses to avoid after-work get-togethers and sit-down holiday dinners.

Admittedly, I cannot offer elegant statistics to rival numbers garnered from formal population-based quantitative studies. All I can share are anecdotal reports gleaned from my large private psychiatric practice, originally based in New York City, but now relocated offsite to upstate New York. Yet those anecdotal reports are impressive. Gainfully employed but socially phobic patients and those on the high end of the autism spectrum (who also tend to be debilitated by social anxiety) are doing better than baseline now that they are freed from the pressures of office politics, enforced personal interactions, and water cooler–style conversations.

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In many instances, such individuals experienced an unexpected sense of relief, as well as a sense of accomplishment, after seeing that they could meet their work responsibilities even better without expending extra mental energy ruminating about social interactions, wondering if they said the right thing, and worrying about being forced to speak up in meetings. Having witnessed how much easier their lives can be without the usual social stresses, they identify a different source of anxiety: fear of forced return to the workplace.

Before proceeding, I must point out that the patients to whom I refer are actively and gainfully employed—and so they do not fall into the high-risk categories identified by the *JAMA* article. They did not experience the stressors, such as job loss or lack of savings, that predispose individuals to COVID-19–related psychological distress. Because they were working before the pandemic, they likely accrued savings that further buffer them from the financial stressors listed in the *JAMA* article.

Recall that socially phobic individuals are unlikely to speak out for themselves. For them, confrontations with their boss or coworkers are even worse than water-cooler conversations.

And that is where we as psychiatrists can help. Selective serotonin reuptake inhibitors (SSRIs) and supportive therapy go only so far in ameliorating their symptoms and relieving their distress. Advocating for changing their external environment—while we change their internal environment through psychotropic medications and psychotherapy—can offer them so much more relief.

We can also educate our patients about Americans with Disabilities Act accommodations that may allow them to continue to work from home even after the epidemic ends (with some caveats). Familiarizing ourselves with the Department of Labor website (www.doi.gov) will enable us to educate our patients and to direct them to standardized sources without offering legal advice that exceeds our clinical training or purview.

At a time when so many psychiatrists are concerned with climate change and its impact on mental health, should we not also concern ourselves with adapting workplaces to meet the needs of our patients? We can advocate for change, simply by following the laws that are already in place for such purposes.

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From the Editor

Continued from page 3

treatments, which was always followed by a severe delusional depressive relapse.

Dr Miller, You Are Fired

Several years after completing my residency training, I was working in a private group practice when I completed a seemingly straightforward psychiatric evaluation on a woman in her late 40s. She presented with a moderate episode of depression, with significant insomnia and anxiety. I discussed treatment options with her; she was already in psychotherapy with a therapist in our practice. We agreed on a trial of nefazodone, hoping to take advantage of its sedating properties to help her sleep, as well as decrease her anxiety.

Three days later she came in to see me for an emergency appointment. I quickly found myself being criticized and cursed by this woman. She reported that since starting the nefazodone, both her anxiety and insomnia had worsened. She fired me and transferred to another psychiatrist in our practice who put her on a different antidepressant. She responded nicely with full resolution of her depression and associated symptoms.

I was befuddled. At the time, my understanding and experience with nefazodone was that it was a reasonable antidepressant that helped insomnia and lowered anxiety.[2] Nefazodone also had the advantages of relative weight neutrality and minimal sexual dysfunction. As psychiatry's collective experience with nefazodone grew, however, we learned that a tiny minority of patients hypermetabolize nefazodone to a molecule called metachlorophenylpiperazine (mCPP), usually a minor metabolite. In this small subgroup of patients, mCPP causes anxiety, panic attacks, central nervous system stimulation, and dysphoria. I learned important psychopharmacology from my experience with that patient; with subsequent patients, I always discussed the rare but possible risk of unpleasant side effects from nefazodone.

From a Lamb to a Lion

During my second year of residency in psychiatry at the University of Massachusetts Medical Center, I worked on the locked inpatient unit. I admitted a man in his early 60s who reported a lifelong history of recurrent unipolar major depressive episodes. When depressed, he could not function in his job, withdrew from his social relationships, became hypersomnic, was paralyzed by anxiety, and felt full of guilt and negative self-judgment. He reported that historically he responded best to imipramine, which he usually continued for about 6 months after the depressive episodes resolved, and then discontinued it. At the time of this admission, he had been off all psychiatric medications for more than 2 years. So, I started him on imipramine.

On the morning of his third hospital day, as I walked onto the locked unit, this patient ran toward me with exuberance, praising me for turning him "from a lamb into a lion." The staff told me he had been up all night calling old friends and business customers. Having never been hypomanic or manic in the past, he was excited and delighted over his perceived newfound exceptional functioning.

However, as is common in mildly manic patients, he remained fully competent to decide his fate. Despite a lengthy team meeting with him, in which we explained in great detail that the imipramine had flipped him into a manic state and shared the risks and unpredictability that accompanied mania, he insisted on discharge. We had to allow him to leave against medical advice.

I can still see him walking toward me that morning with such excitement and appreciation, all the while feeling dread about having prescribed the medication that transformed this man from having a major depressive episode with poor functioning into an individual with hypomania who had no insight into the impulsivity and regretful adventures that would likely come his way.

Conclusions

All experienced clinicians have had similar encounters to these. The blessing of the field of medicine is that we have numerous treatment options to draw upon, established by a solid evidence base and the accumulation of our aggregate clinical experience. The curse is that each patient is unique in ways that we cannot predict, and we have no control over how a particular patient will respond to treatments. Just as our patients have no free lunch when beginning our prescribed treatment, we have no free lunch when recommending what that treatment should be.

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EXPLORING SIDE EFFECTS
Finding Solutions While Managing Problems

» Sheldon H. Preskorn, MD

I believe readers will find this Special Report well worth their time. Each of the authors have produced commendable articles, which are succinct but also thorough within the constraints of the space allotted and well written. I will, therefore, highlight only a couple of issues.

First is the dilemma of what adjective to use in describing these effects: should they be called *side* effects, *adverse* effects, or just *other* effects? *Side effects* was originally meant to imply an effect of the drug other than a therapeutic effect. For example, sedation was considered a side effect of antipsychotic drugs like quetiapine or trazodone. However, these drugs are commonly used to produce such effects when given at generally lower doses once-daily at night. *Adverse effect* was meant to imply an effect that the patient found undesirable, such as weight gain from mirtazapine and some antipsychotics, but clinicians may use such drugs for some underweight patients to promote weight gain. Whether an effect is adverse or desired can be a function of the clinical situation. For example, selective serotonin reuptake inhibitors can cause delayed ejaculation, which may be adverse for many patients, but can be beneficial for patients with premature ejaculation. For these reasons, I prefer to call them *other effects* of the drug.

Whether an effect is adverse or desired can be a function of the clinical situation.

When using a marketed drug for an effect that is not a labeled indication, it is called an off-label indication. It is important to recall: drugs are approved and indications are labeled or not labeled. When doing so, the clinician is using an approved drug for an off-label indication. The clinician bears the responsibility for using a drug in such a manner, whether it be based on published studies of efficacy that were never submitted to the US Food and Drug Administration (FDA) for labeling purposes, or based on the known pharmacology of the drug or clinical experience. Why might a drug be used for an off-label indication? The drug developer may not have thought that indication was commercially viable to perform studies and submit the data to the FDA for approval of that indication. In some instances, the drug is either too near or past its patent life before such a potential indication was considered.

Another issue is how to know whether a member of a therapeutic class (eg, an antidepressant) is more or less likely to produce a specific other effect (eg, weight gain). In addition to the likelihood of the effect occurring, there are a number of other factors to consider, such as whether the effect is transient or enduring, the severity if it is adverse, and the nature of the data upon which these conclusions are made. From this list of issues, readers will realize that these questions are complex and go beyond the scope of this introduction to this Special Report.

I am confident that the reader will benefit from reading this series. Perhaps more importantly, this will also benefit the patients they treat.

Dr Preskorn *is professor in the Department of Psychiatry and Behavioral Sciences at the Kansas University School of Medicine-Wichita. Over his 42-year academic medical career he has worked with over 140 pharmaceutical, biotechnology, device, and diagnostics companies to bring their products to the market. He has been a principal investigator at the site level on all antipsychotic and antidepressants medications approved in the US over a 25-year period of time. He has received grants/research support from or has served as a consultant, on the advisory board, or on the speaker's bureau for Alkermes, BioXcel, Eisai, Janssen, Lyndard, Otsuka, Sunovion, and Usona Institute. All clinical trial and study contracts were with and payments made to The University of Kansas Medical Center Research Institute, a research institute affiliated with The University of Kansas School of Medicine-Wichita.* ❒

PSYCHIATRIC TIMES PEER REVIEWED

ALSO IN THIS
SPECIAL REPORT

Special Report Chair
Sheldon Preskorn, MD

Addressing Obesity in Patients Taking Antipsychotics

» Mehrul Hasnain, MD

Obesity is a prevalent global problem that affects patients with major mental illness disproportionately.[1] It is associated with cardiovascular risk factors, including hypertension, dyslipidemia, and impaired glucose tolerance. Not surprisingly, the prevalence of these conditions is also high in patients with major mental illness. In fact, patients with major mental illness have a lifespan 10 to 15 years shorter than the general population, with cardiovascular mortality largely accounts for this difference.[2]

Several biological, psychological, behavioral, and social factors predispose patients with major mental illness to obesity. One well-established risk factor is the weight gain-inducing side effect of antipsychotic drugs.[3-8] Two features of this risk factor make it stand out: It is modifiable, and it is under the control of the prescriber.

Weight Gain-Inducing Risk of Antipsychotic Drugs

Most early antipsychotic drugs caused acute and chronic motor side effects. Clozapine was different because it was not haloperidol-like or a high-potency dopamine-2 full antagonist, but its routine use was prevented by the risk of agranulocytosis. Several safer atypical antipsychotic drugs have become available, and they are now standard treatment for schizophrenia and other approved indications. Despite this progress, an important side effect of clozapine—weight gain—has remained an issue with later-generation antipsychotics.

Researchers use 2 measures to determine the weight gain-inducing side effects of psychotropic drugs[3]: how many patients exposed to a given drug gain weight and how much weight is gained by patients. The latter can be measured as a crude number, or it can be standardized as a proportion of weight gain from baseline. Generally, weight gain greater than 7% from baseline is considered significant.

We now have extensive research on the weight gain-inducing and metabolic risks of antipsychotic drugs, including meta-analyses of the data.[3-8] If we leave subtle differences and academic discussions aside, the common antipsychotic drugs can be grouped into 3 categories of weight gain-inducing potential (**Table 1**).

There are a few important things to remember when contending with weight gain-inducing risk. First, weight gain is an individual-specific phenomenon; therefore, each patient must be monitored individually. Second, young patients who were not previously exposed to an antipsychotic drug (ie, drug-naive patients) are at a much higher risk of weight gain than older individuals who are not drug-naïve.[8] Third, there is some evidence that metabolic complications (dyslipidemia and/or glucose intolerance) may result from these drugs independent of significant weight gain.[9] Lastly, antipsychotic drug use is associated with weight gain irrespective of the diagnosis.

Limiting and Managing Drug-Induced Weight Gain

A preventive approach. Losing excess weight is tough for anyone and even tougher for individuals with major mental illness.[1] Obesity might not receive much clinical attention because it is not acutely distressing or life-threatening. In the long term, however, it contributes to morbidity and mortality. In addition, young, nonobese, drug-naive patients can gain significant weight within a matter of months when exposed to antipsychotic drugs with a high risk of weight gain.[8] Once they have gained that weight, many of them will never be able to lose it.

Differences in the efficacy of commonly used antipsychotics are marginal, but differences in their weight gain-inducing potential are huge.[7] There is little justification for prescribing an antipsychotic drug that has a high potential to induce weight gain when there are safer alternatives. A more reasonable approach would be to start with a low-risk medication and switch to another medication in case of inefficacy or intolerance.

Despite limited evidence, second-generation antipsychotics are used for several off-label conditions.[10] Psychiatric conditions generally have a high placebo response, which may be what off-label antipsychotic use offers, but at a much higher side-effect burden than placebo. It is quite concerning that off-label antipsychotic use is prevalent in children and adolescents, who are particularly prone to these weight gain-inducing and metabolic side effects. The Choosing Wisely recommendations by the American Psychiatric Association (APA) provide more information.[11]

Baseline assessment and ongoing monitoring. In 2004, the APA along with other associations issued a consensus statement on baseline assessment and monitoring of patients who are prescribed an antipsychotic drug for any indication (**Table 2**).[12] Measurement

SPECIAL REPORT

Table 1. Relative Weight Gain–Inducing Risk of Commonly Used Typical Antipsychotic Drugs[3-8]

Risk category	Description of risk[a]	Drugs
Low risk	Approximately 10% or fewer patients are likely to gain > 7% weight from baseline. Mean weight gain over 1 year is approximately 1 kg.	Aripiprazole and lurasidone
Medium risk	Between 10% and 30% of patients are likely to gain > 7% weight from baseline. Mean weight gain over 1 year is between 1 kg and 5 kg.	Amisulpride*, asenapine, iloperidone, paliperidone, quetiapine, and risperidone
High risk	Approximately 30% or more patients are likely to gain > 7% weight from baseline. Mean weight gain over 1 year is > 5 kg.	Clozapine, iloperidone, and olanzapine

[a]Both the risk of gaining weight and the extent of weight gain is much higher in young, drug-naive patients than in patients who have been chronically exposed to antipsychotic drugs.

[b]Amisulpride lies at the cusp of low-risk and medium-risk categories, and thus has been categorized as low-risk in some studies and medium-risk in others.

[c]Iloperidone lies at the cusp of medium-risk and high-risk categories and can be included in one or the other category.

Table 2. APA and American Diabetes Association Guidelines on Baseline Assessment and Monitoring of Patients Receiving Antipsychotic Medication[12a]

Risk factor	Baseline assessment	Monitoring frequency
Background risk factors	■ Personal and family history of obesity ■ Diabetes, dyslipidemia, hypertension, or cardiovascular disease	■ Not applicable
Adiposity	■ Weight and height to calculate body mass index	■ At wk 4, 8, 12,and then quarterly
	■ Waist circumference at umbilical level	■ Annually
Hypertension	■ Blood pressure	■ After 12 wk, and then annually
Glucose dysregulation**	■ Fasting blood glucose level[c]***	■ After 12 wk, and then annually
Dyslipidemia	■ Fasting lipid profile	■ After 12 wk, then every 5 years

* More frequent assessments may be warranted based on clinical status.

** Patients should be educated about the rare risk of diabetic ketoacidosis and its symptoms (rapid onset of polyuria, polydipsia, weight loss, nausea/vomiting, dehydration, rapid respiration, clouding of sensorium, and even coma).

*** Based on the current diagnostic guidelines, measuring glycated hemoglobin A_{1C} may be an alternative to measuring fasting plasma glucose levels.[15]

of waist circumference may not be practical in some cases, but tracking body mass index should not be a problem. Inquiring about family history of antipsychotic drug use, including response and side effects, could also provide useful information.

According to the guidelines, several factors contribute to nonadherence. These include clinicians' lack of knowledge, psychiatrists' limited training in monitoring patients' physical health, limited resources, time constraints, diffusion of roles, and patient nonadherence.[13] If an abnormality is detected that warrants further assessment or treatment, it should be communicated to the patient's general physician with clarity about role designation for further assessment and management. Poor physical health care of patients with major mental illness is a systemic problem. Psychiatrists should use their social influence to shift health care culture, clinical prompts, and monitoring tools to promote an integrated or coordinated health care approach.[14]

Prioritizing discussions of weight gain, its complications, and healthy lifestyle. Clinical encounters are often too brief to tackle all important matters. In the hierarchy of priorities, discussion of weight and healthy lifestyle are often at the bottom of the list. However, patients with major mental illness are prone to obesity even without an iatrogenic contribution. Furthermore, personal and socioeconomic factors often make it more difficult for individuals with mental illness to adopt healthy lifestyles.[1] Obesity is associated with stigma and poor self-esteem; presenting weight issues as a medical problem can help destigmatize it. Discussions about obesity and its complications would automatically become a focus of clinical attention if the aforementioned APA guidance (**Table 2**)[12,15] were incorporated into clinical practice.

Involvement of other experts for healthy lifestyle interventions. Healthy lifestyle interventions are most effective in helping obese patients lose weight and offer the best long-term outcome.[16,17] They should be offered to all suitable patients irrespective of other offered interventions.

For a healthy lifestyle intervention to be effective, it should include individualized counseling on diet and exercise, cognitive and behavioral interventions, setting well-defined, attainable goals, objective monitoring of progress, and expertise to plan and implement the interventions.[16,17] Most psychiatrists do not have the time or expertise to take on these tasks, so involving relevant professionals (eg, dieticians, psychologists, occupational therapists, and case managers for obese patients) is a good idea. Patients who are already obese or who are gaining unhealthy amounts of weight should be referred to these professionals after appropriate counseling. In addition to monitoring measures of obesity, the 6-minute walk test can be used to monitor general physical fitness.[18] Adopting a healthy lifestyle is very difficult for patients with major mental illness due to several factors, many of which are not in their control.[1] High failure rates in the form of nonadherence and drop-outs are normal and should not be taken as a disappointment in the intervention or the patient.

Nonacademic medical centers may not have access to healthy lifestyle intervention professionals who have experience working with patients with major mental illness. In such situations, psychiatrists who are knowledgeable about the interventions can guide their colleagues on matters specific to this patient population.

Another efficient approach is to offer them in a group setting. A group setting validates the widespread nature of the problem, and patients can draw encouragement from each other. However, only psychiatrically stable patients would be suitable candidates for a group intervention and, in some cases, patient advocacy, staff capacity building, leadership engagement, and change in organizational policy may be needed.[16]

Switching antipsychotic drugs. Switching out a higher-risk antipsychotic drug for one that has a lower risk of inducing weight gain can help some patients. The **Figure** summarizes the main elements of drug switching.[19]

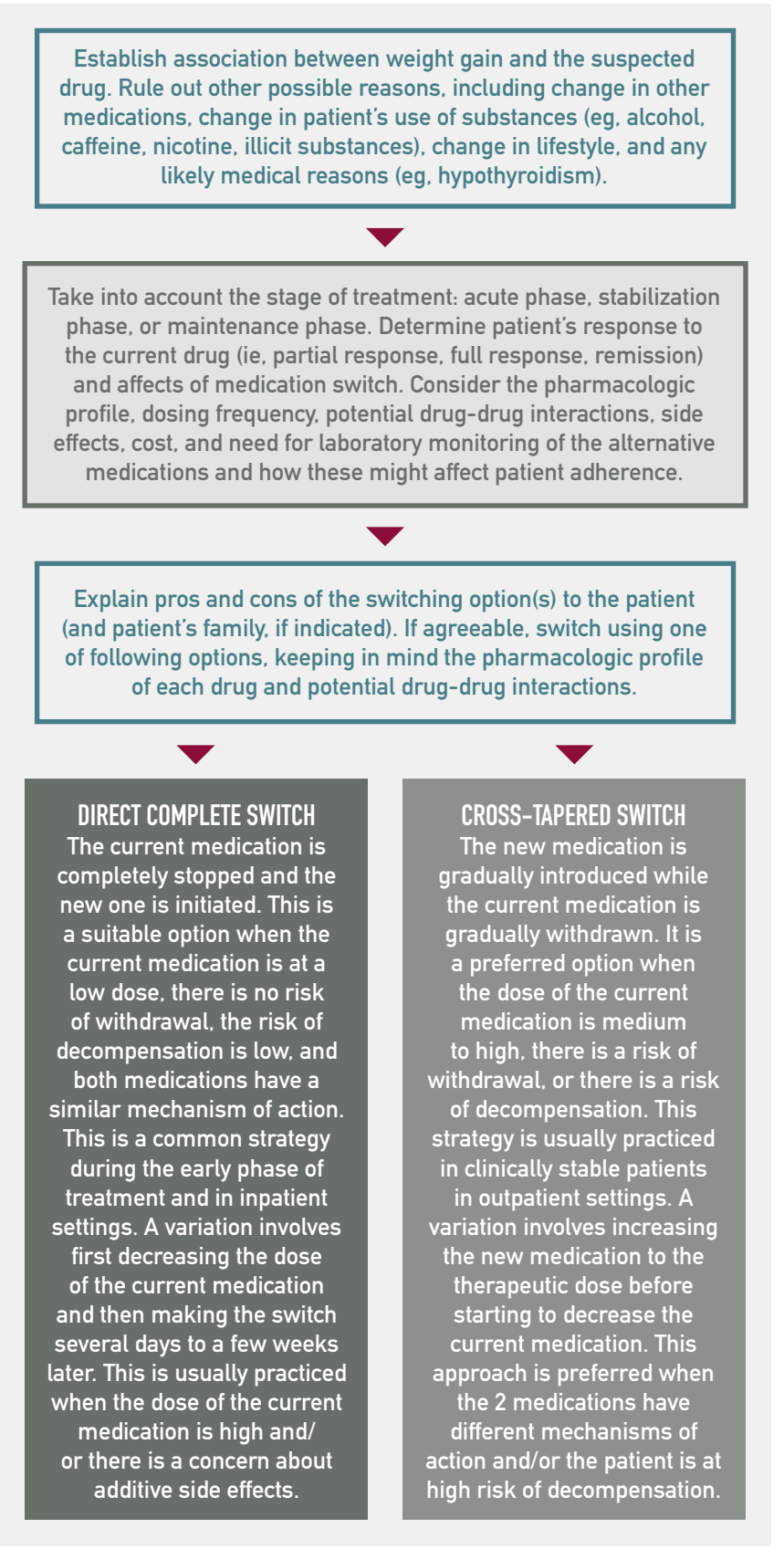
Switching antipsychotic medications must take into account various factors, including therapeutic response to the current medication, the patient's comfort with the switch, and pharmacokinetic and pharmacodynamic properties of both drugs. Furthermore, sufficient time must be allowed to clinically document the process of the switch and its effects. The aim should be to completely replace one drug with another, but in rare cases, combination therapy may be justified based on clinical outcome.

Add-on drug treatment for weight loss. Numerous drugs have been studied as adjunctive treatment to counter antipsychotic medication-induced weight gain.[20] For this purpose, metformin and topiramate have the best evidence of efficacy and safety.[21-23]

The metformin studies in patients with major mental illness are heterogeneous in terms of the patient population, duration of current exposure to an antipsychotic drug, and history of chronic exposure to antipsychotic drugs. Review of individual studies shows that metformin is most effective as an add-on treatment for antipsychotic drug-induced weight gain when it is introduced early in the course of treatment of patients who are young, have not been exposed to antipsychotic drugs chronically, and who have gained significant amounts of weight over a short period of time.[23] Metformin may also help diminish insulin resistance associated with obesity. The beneficial effect of metformin is likely to diminish over the long term compared with healthy lifestyle interventions.

Topiramate add-on treatment to prevent or reverse antipsychotic drug-induced weight gain has been studied in several trials as well.[21] Overall, topiramate was shown to be superior to placebo, with modest weight loss comparable to that observed in the trials with metformin (a

Figure. Approaches to Switching Antipsychotic Drugs[19]



mean weight loss of approximately 3 kilograms versus placebo over the course of 16 to 24 weeks).[20,21] As with metformin, the greatest benefit is likely to happen in young, previously drug-naive individuals who gained significant weight over a short period of time. An added benefit of topiramate therapy is that it might address some of the mental illness symptoms as well.[24] Long-term benefits of topiramate add-on therapy are less well known than those of metformin.

Concluding Thoughts

Weight gain associated with the use of atypical antipsychotic drugs is akin to tardive dyskinesia resulting from high-potency, typical antipsychotics. It evolves over time, leads to chronic complications, and is very difficult to reverse. Pharmacologic interventions used to tackle weight gain, namely switching from a higher-risk antipsychotic to one with a lower risk and adding an adjunct medication to counter weight gain, are modestly effective and worth considering in suitable cases. Healthy lifestyle interventions offer the best long-term outcomes, but their availability is limited by a host of factors.

There are 2 important things that need to be done. First, the iatrogenic burden of obesity should be minimized by using low-risk antipsychotics preferentially over those with higher risk for weight gain whenever possible. Second, patients should be monitored for obesity and its complications, and counseled to improve awareness about obesity and the importance of a healthy lifestyle. Efforts to develop antipsychotic drugs with a neutral affect on weight are ongoing. A few have already become available, but a shift in clinical practice for their preferential use will take its due time.

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SPECIAL REPORT

Sedation: The Ups and Downs of a Side Effect

» Chris Aiken, MD

Not long ago, tranquilization was an important goal of psychopharmacology, and sedation was integral to this therapeutic effect. Major tranquilizers (ie, antipsychotics) sedated psychosis and mania, while minor ones (ie, benzodiazepines) calmed the anxious mind. Even antidepressants were thought to benefit from sedation, in part because insomnia is a symptom of depression, but also because of concerns that patients might act on suicidal impulses if their energy improved before their depression did.[1]

Those ideas were put to rest in the 1990s, as nonsedating medications proved just as effective as their sedating predecessors. Rather than forewarning suicide, early increases in energy and physical activity are actually a predictor of antidepressant response.[2] Improved functioning is the goal in psychopharmacology, and sedation usually does not contribute to that goal.

Sedation is sometimes desirable and sometimes not. It is desirable when treating insomnia, as long as the sedative effects do not linger into the morning. It can also be life-saving when treating acute agitation in emergency situations. Increased activity does not foretell a positive outcome, and may even be a risk factor for suicide, when it is due to adverse effects like akathisia or mania.

The Best and Worst

The simplest way to manage unwanted sedation is to choose medications that are less likely to cause it. **Table 1** ranks psychiatric medications by their sedation risk, based on meta-analyses of clinical trials and data from the US Food and Drug Administration (FDA).[3-9] Although these analyses arrived at fairly consistent conclusions, **Table 1** is still only an approximation. The relative rankings apply within each class, but some classes as a whole are more sedating than others, particularly the antipsychotics.

Surprisingly, the traditional mood stabilizers, particularly lithium, are not nearly as sedating as the antipsychotics. Lithium has been reported to cause sedation in about 1 in 16 to 1 in 27 patients, depending on the study. With most second-generation antipsychotics, this rate is closer to 1 in 5 patients.[6,7] While lithium may not cause much drowsiness, it does cause adverse effects that can be mistaken for sedation, like motoric and cognitive slowing, especially in higher concentrations.

There are 2 nonsedating antidepressants that have stimulant-like properties: bupropion and tranylcypromine. Tranylcypromine is a monoamine oxidase inhibitor (MAOI), but it is structurally related to amphetamine and has dopaminergic effects in the brain. Both of these medications are best dosed in the morning. However, their stimulating effects do not necessarily mean that they will disrupt sleep quality, as we will see later in this review. **Table 2** shows the most and least sedating antidepressants within each class.[3,9]

Sedation is rarely encountered when treating attention-deficit/hyperactivity disorder (ADHD) with traditional stimulants, but it can be a problem with the nonstimulant treatment options. Sedation is a well-known side effect of the α_2 agonists, particularly clonidine, but new data suggests that atomoxetine may also carry a high risk. In clinical trials of atomoxetine, only 1 in 20 patients reported fatigue.[8] However, in the FDA postmarketing reporting system, atomoxetine ranked second for its propensity to prompt reports of somnolence.

Table 1. Sedative Effects of Psychiatric Medications[3-9]

Drug type	High	High-moderate	Moderate	Low or none
Antidepressants[3,5,9]	Mirtazapine, trazodone	Tricyclics (except desipramine and nortriptyline)	SSRIs (particularly paroxetine and fluvoxamine), SNRIs, isocarboxazid, phenelzine, nefazodone, desipramine, nortriptyline	Bupropion, desipramine, levomilnacipran, selegiline transdermal (Emsam), tranylcypromine, vilazodone, vortioxetine
Traditional mood stabilizers[3,6,7]	--	Carbamazepine, divalproex	Lithium	Lamotrigine
Antipsychotics[3,5-7]	Clozapine, olanzapine, quetiapine, ziprasidone	Asenapine, lumateperone, lurasidone	Aripiprazole, risperidone	Brexpiprazole, cariprazine, iloperidone, paliperidone
ADHD[3,8,9]	--	Clonidine	Guanfacine, atomoxetine	Stimulants

SPECIAL REPORT

(The study ranked atomoxetine against 30 antidepressants since it has an antidepressant structure).[9] If fatigue was rare in clinical trials of atomoxetine, why did it prompt so many reports of somnolence? The best explanation for this discrepancy is that peak plasma levels of atomoxetine can be 10-fold higher in CYP2D6 poor metabolizers. Therefore, while fatigue may be rare with this drug, it is likely to be quite severe in patients that do experience it.

When it comes to antipsychotics, finding a nonsedating option is like navigating between the fabled Scylla and Charybdis. Patients tend to experience akathisia when we select the less sedating options like lurasidone, risperidone, cariprazine, and aripiprazole. The more sedating ones, such as clozapine, olanzapine, quetiapine, and ziprasidone, are less likely to cause akathisia. When patients cannot tolerate either of these side effects, brexpiprazole and iloperidone are good options, with number needed to harm (NNH) above 30 for both sedation and akathisia.[4] Lumateperone is also relatively free of akathisia, and its sedative effects are usually manageable with evening dosing.

Evening Dosing

Some medications are so sedating that this adverse effect limits their use. This is particularly true when they are taken in the morning, as is often the case for the short half-life medications that are given in divided doses. Quetiapine (half-life, 6 hours), ziprasidone (7 hours), clozapine (12 hours), and trazodone (5 to 9 hours) were all recommended for twice daily dosing when they were first released, based on the half-lives of the drugs. However, pragmatic physicians soon began dosing these medications at night without any loss of efficacy. This strategy is supported by about a dozen clinical trials comparing evening dosing to divided dosing in patients with schizophrenia and mood disorders.[10-13] Asenapine could also be added to that list, as it was originally recommended to be given in divided doses but has a 24-hour half-life.

Sedation can be an asset when these short half-life medications are given at night, as their sedative effects are generally limited to the hours of sleep. The major risk with this strategy is orthostasis, particularly in older patients. For quetiapine, the extended-release version reduces this risk by smoothing over the peak levels.

Antidotes for Sedation

When switching medications is not an option and evening dosing does not relieve sedation, antidotes may help, but are not consistently helpful. Modafinil and armodafinil improved residual fatigue in both bipolar and unipolar depression, but the benefit was small (effect size=0.15).[14] These novel stimulants failed to improve fatigue in studies of patients with schizophrenia, although those trials were probably underpowered to detect the difference.[15] Traditional stimulants have even less evidence of benefit and carry more risks. Concerns about tolerance, addiction, psychosis, mania, and cardiovascular risks significantly limit their use.

Sleep Quality and Sedation

Psychiatric medications may cause fatigue through direct sedative effects or by worsening sleep quality. When medications make it difficult for a patient to fall asleep, the effect is usually readily apparent to the patient. When they disrupt sleep quality, the cause is less apparent. Poor sleep quality causes a variety of problems, some of which can be mistaken for symptoms of psychiatric disorders (eg, daytime fatigue, trouble concentrating, irritability, slowed reaction time, and poor problem-solving abilities).

Serotonergic antidepressants can cause both initiation insomnia and restless, fragmented sleep.[3,16] The sedative effects of these antidepressants generally parallel their tendency to disrupt sleep, suggesting that poor sleep quality may be part of the reason that patients feel tired on these medications.

On the other hand, some antidepressants (eg, bupropion, levomilnacipran, and vortioxetine) have low rates of both sedation and insomnia.[16] Despite its stimulating effects, bupropion actually improves sleep quality, increasing slow-wave sleep and reducing REM latency and density.[17,18] Bupropion can cause difficulty falling asleep, but it does so at about the same rate as the selective serotonin reuptake inhibitors (SSRIs).[16] Vortioxetine has not been adequately tested in a sleep lab, but it was shown to normalize sleep architecture in an animal study and, in a post hoc analysis of a clinical study, it improved subjective reports of sleep quality.[18]

If a patient needs a sedative to fall asleep, mirtazapine and trazodone both achieve this effect without worsening sleep quality. These antidepressants increase the slow waves that characterize the deepest stage of sleep.[3] Likewise, the sedating antipsychotics usually do not worsen sleep quality, and may, in fact, improve it (**Table 3**).

Quetiapine improved sleep quality, increased sleep efficiency, and reduced nocturnal awakenings in patients with bipolar disorder. Olanzapine, risperidone, and ziprasidone also resulted in improvements in sleep quality, beyond their effects on sleep initiation.[19] Lumateperone, which shares a serotonin 5-HT_{2A} receptor antagonist effect with trazodone, was originally developed as a hypnotic before gaining approval in schizophrenia. Taken nightly, in low doses (1-10 mg hs), lumateperone improved sleep without causing next-day sedation.[20] These sedating options may provide dual benefits when patients require an antipsychotic for schizophrenia or a mood disorder, but antipsychotics have too many risks to justify their use for insomnia alone.

The Bottom Line

Sedation may not always be desirable, but it is difficult to avoid in psychiatry. Some of the most sedating medications have unique benefits that may justify their use (**Table 3**).[21] Evening dosing may improve tolerability, as long as adverse effects that are linked to the peak serum level do not get in the way. Orthostasis, for example, can cause a problem when antipsychotics and some antidepressants (eg, trazodone, mirtazapine, tricyclics, MAOIs) reach peak levels.

On the other hand, it is not necessary to jump to a sedating medication just because a patient has trouble sleeping. Some of these medications, like the SSRIs and the serotonin-norepinephrine reuptake inhibitors, worsen sleep quality. In fact, sleep may improve with an activating medication, either because it deepens sleep quality as bupropion does, or because it helps the patient reset their circadian rhythm. Patients tend to sleep better when they rise at regular times and stay active during the day.

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Table 2. The Most and Least Sedating Antidepressants Within Each Class [3,9]

Drug type	Least sedating	Most sedating
SSRIs	Escitalopram	Paroxetine and fluvoxamine
SNRIs	Levomilnacipran	Venlafaxine
MAOIs	Tranylcypromine	Phenelzine
Tricyclics	Desipramine, nortriptyline	Amitriptyline, doxepin
Other	Vortioxetine	Trazodone, mirtazapine

Table 3. Antipsychotics and Sedation Effects[21]

Sedating medication	Unique benefits
Clozapine	Treatment-resistant schizophrenia; psychosis with suicidality; lack of tardive dyskinesia
Quetiapine	Along with cariprazine, it is the only antipsychotic that treats both mania and depression. It also has unique benefits for sleep and anxiety and a low risk of akathisia.
Ziprasidone	Among antipsychotics, it has the most favorable metabolic profile.
Trazodone and mirtazapine	Low risk of sexual side effects. Benefits in sleep architecture. Low risk of weight gain with trazodone.
Tricyclics	Potential benefits in treatment-resistant depression, melancholic depression, and chronic pain.
Clonidine	Benefits in opioid and nicotine use disorders, autism, tic disorders, irritability, nightmares, and insomnia.

The Carlat Psychiatry Report *and coeditor of the Bipolar Disorder Section for* Psychiatric Times™.

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Sex, Drugs, and Psychosis: Reviewing Psychiatric Medications' Taboo Side Effect

» Robert Drury, Brendan King, Caleb Natale, Wayne Hellstrom, MD

SPECIAL REPORT

It has been said that individuals avoid discussing religion, politics, and money. In this article, we will address another taboo topic: sexual dysfunction (SD), which occurs when an individual has difficulty with 1 or more components of the sexual response cycle, presenting as decreased libido, early or delayed ejaculation, orgasmic dysfunction, impaired genital sensation, erectile dysfunction, and/or insufficient lubrication in women.[1]

SD is relatively common. In the general adult population, the estimated prevalence of SD is 20% to 30% in men and 40% to 45% in women.[1] Certain risk factors may increase the risk, including psychiatric disease. For example, based on International Classification of Diseases, Tenth Revision (ICD-10) definitions, 74% of men and 82% of women with schizophrenia, reported at least 1 sexual problem.[2] However, psychiatric patients experiencing SD are often hesitant to disclose concerns to health care professionals.[2,3]

Medicinal treatment of psychiatric diseases is also a significant cause of SD. Antidepressants, antipsychotics, and benzodiazepines are 3 drug classes that are potent etiologies of SD (**Table 1**).[4-10] According to a validated survey for assessing SD (SalSex), nearly half of patients treated for a psychotic disorder developed SD.[3] Another study suggested that 25% to 80% of patients treated with antidepressants developed SD.[11] This is a major concern, as some patients have shown poor tolerance to the sexual side effects of psychiatric medications and have considered treatment cessation as a result.[3,12] Furthermore, emerging evidence suggests that the sexual side effects of psychiatric medications persist even after medication discontinuation, causing patients great distress.[13]

SD is a significant concern for patients on psychiatric medications. However, SD is often inadequately addressed.

Medication Classes and Sexual Dysfunction

SELECTIVE SEROTONIN REUPTAKE INHIBITORS. Selective serotonin reuptake inhibitors (SSRIs) are commonly utilized in the treatment of major depression, anxiety disorders, posttraumatic stress disorder, and obsessive-compulsive disorder, among others.[13] The prevalence of sexual side effects is not well defined. One post-market study estimated SD prevalence in patients treated with SSRIs between 5% and 15%,[4] while some studies reported up to 80% of patients experienced sexual side effects.[5] Although some patients experiencing sexual side effects may see their symptoms resolve over the course of treatment, the vast majority will continue to experience side effects during SSRI treatment.[13] Some patients may continue to suffer from persistent side effects despite the discontinuing medication, a condition known as post-SSRI sexual dysfunction (PSSD).[13] Although there is limited clinical trial data, available studies found the highest incidence of sexual side effects in patients treated with paroxetine, followed by fluvoxamine, sertraline, and fluoxetine.[6,7]

A proposed mechanism for SSRI-induced SD lies within the interaction between serotonin and 5-hydroxytryptamine receptors ($5HT_{1A}$).[13] SSRIs are hypothesized to cause downregulation of $5HT_{1A}$ due to the persistent stimulation by serotonin and resulting epigenetic changes that have implications for regulation of sexual motivation. It is likely that other 5HT receptor subtypes are similarly affected. The effect of elevated serotonin on levels of other hormones and neurotransmitters that play an important role in sexual function, such as testosterone and dopamine, may also account for some of SSRIs' sexual side effects. These effects appear to be dose-dependent, with higher doses increasing one's risk of SD.[14,15] Thus, providers must weigh the potential benefits of increasing drug doses with increasing risk of adverse effects.[15]

ANTIPSYCHOTICS. SD is a common adverse effect (present in up to 48% to 75% of patients) of both oral and depot antipsychotic medications.[8,16] Results of a recent meta-analysis described SD prevalence in those treated with oral antipsychotics to be between 16% to 60%.[9,17] Treatment with quetiapine (16%), ziprasidone (18%), and aripiprazole (27%) were associated with the lowest rates of SD. Olanzapine (40%), risperidone (43%), haloperidol (45%), clozapine (52%), and thioridazine (60%) were associated with higher prevalence of SD. In long-acting depot antipsychotics, first- versus second-generation antipsychotics are more strongly associated with SD.[18,19]

Sexual side effects can likely be traced to the disruption of various neurogenic and hormonal factors impacted by the antipsychotics.[9] Mechanisms vary based on action

Table 1. Sexual Dysfunction from Psychiatric Medications

Medication class	Specific medications	Forms of sexual dysfunction
Antidepressants[6,7,11,13,14,15,25,28]	***SSRI/SNRIs**** Sertraline, venlafaxine, citalopram, paroxetine, fluoxetine, duloxetine, escitalopram, fluvoxamine ***TCAs**** Imipramine, clomipramine, amitriptyline, doxepin ***MAOI***** Phenelzine	***Gender neutral*** Decreased sexual desire, arousal, response, and orgasm; genital anesthesia; post-SSRI sexual dysfunction ***Men*** Erectile dysfunction, premature ejaculation, decreased penile size, smaller seminal volume, testicular atrophy and pain ***Women*** Insufficient vaginal lubrication, nipple insensitivity, irregular menstruation
	Atypical Agomelatine, amineptine, bupropion ***Other*** Moclobemide, mirtazapine, vilazodone	
Antipsychotics[3,8,9,20]	***First generation*** Haloperidol, thioridazine, fluphenazine, chlorpromazine ***Second generation*** Risperidone, clozapine, amisulpride, paliperidone, sertindole, sulpiride	***Gender neutral*** Low libido, orgasmic difficulties (eg, anorgasmia), hyperprolactinemia ***Men*** Ejaculatory difficulties (eg, retrograde ejaculation, anejaculation), erectile dysfunction, gynecomastia, priapism ***Women*** Decreased vaginal lubrication, irregular menstruation
	Second generation Olanzapine, quetiapine, ziprasidone, aripiprazole, lurasidone	
Benzodiazepines[10,21,22]	Evidence is still contradictory regarding effect on sexual function	

***Red**: Associated with sexual dysfunction*
***Blue**: Not associated with sexual dysfunction*

of specific medications. For instance, antidopaminergic medications likely impact the dopaminergic activity of the mesolimbic system, which is integral to sexual functioning. Atypical antipsychotics that target postsynaptic 5HT receptors can negatively affect arousal, orgasm, and ejaculation, as serotonin inhibits sexual desire. Medications that influence levels of luteinizing hormone, follicle-stimulating hormone, prolactin, testosterone, or other neuroendocrine changes can lead to imbalance of these factors necessary for optimal sexual functioning. This was illustrated in the meta-analysis described previously, which generally showed prolactin-raising antipsychotics (eg, haloperidol) caused greater SD compared with prolactin-sparing drugs (eg, ziprasidone).[17] Also, as with SSRIs, antipsychotic-based SD appears to be dose-related.[9,20] Thus, to assess a patient's risk of SD, providers must consider both the dosage and mechanism of a particular antipsychotic.

BENZODIAZEPINES. Benzodiazepines have been reported to result in SD, but this effect is less evident and less reported than the classes of drugs previously discussed. The results of a multicenter double-blind randomized comparative study of patients treated with acute phase alprazolam for panic disorder found that the benzodiazepines did not cause SD.[21] Other studies point to increased sexual arousal because of reduced anxiety in patients treated with benzodiazepines.[22] Conversely, 2 studies have reported anorgasmia in 25% to 50% of patient samples treated with alprazolam.[10] It is possible that benzodiazepines may reduce anxiety-related aspects of SD while causing anorgasmia and/or other negative impacts on sexual function.

Although there is limited evidence of the mechanism behind the SD caused by benzodiazepines, contributing factors could include effects on neurotransmitters and drug-drug interactions. Benzodiazepines are allosteric modulators of the gamma-amino butyric acid (GABA)-A receptor.[10] GABA, a central nervous system neurotransmitter, has been associated with decreased sexual behavior. Increased GABA activity could account for decreased sexual function. Benzodiazepines may also contribute indirectly to SD through increased concentrations of concurrently taken medications because of interactions with the cytochrome P450 system.[10]

Dysfunction in the Clinic

Mental health care professionals should take the lead in discussing SD with patients. Patients are often unable or unwilling to initiate a dialogue about sexual concerns, and SD could go unnoticed. For example, 1 study showed that 63% of patients experiencing sexual side effects from treatment but did not spontaneously report the issue.[3] Importantly, 1 of 3 of those patients felt their dysfunction was significantly impacting their quality of life. An additional study revealed that 50% of patients rarely if ever discussed their SD with providers, even if it had affected adherence to treatment.[23]

The sexual effects of psychiatric medications should be communicated at 3 distinct times: before, during, and after treatment. It is often difficult to discern retroactively if a patient's SD is from their mental health condition or their psychiatric medications. Thus, establishing a baseline level of sexual function before treatment is extremely helpful. Then, throughout treatment, the clinician should continuously follow up with patients on their sexual function either verbally or through the usage of validated questionnaires.[24]

If a patient is experiencing treatment-related dysfunction, it is important to ask how distressed the patient is by their SD.[25] Not all patients with treatment-induced SD are greatly concerned about it.[3,23] It may also be helpful to directly ask patients if their SD has ever caused them to cease their medications.

Finally, if patients complete treatment, it is important to follow up and inquire if their SD has resolved, as some patients experience lingering SD after discontinuation of treatment.[13] It is therefore important to detect this and help patients seek appropriate therapies to treat their SD.

Managing Dysfunction

Irrespective of the presumed cause of SD, the initial management of patients presenting with SD symptoms must begin with a thorough history and physical exam to ensure that the SD is indeed a product of psychiatric medication use **(Table 2)**.[26,27] The clinician should also utilize validated psychometric questionnaires, such as the International Index of Erectile Function (IIEF) or its short version, the Sexual Health Inventory for Men (SHIM) (**Table 2**), at the initial and follow-up visits to assess the various sexual function domains (ie, erectile function, libido, orgasmic function, intercourse, overall satisfaction) at baseline and following initiation or modification of a specific treatment modality.[27] Identifying reversible risk factors for SD, such as hypogonadism, hypertension, and obesity, and initiating appropriate treatment should be the clinician's primary focus during the initial evaluation.[27] It is only after addressing easily reversible risk factors for SD that a clinician should suspect psychotropic medications as the cause of SD, especially if the timing of SD remains unclear.

Given the lack of evidence-based treatments, management of patients with presumed psychotropic-induced SD proves to be more of an art rather than a science, and only 20% of prescribers discuss this topic with their

Table 2. Initial Management of Sexual Dysfunction[26,27]

Through a thorough history and physical exam, clinicians should elicit the following:

- Onset and duration of the problem
- Patient's sexual condition prior to therapy
- Any potential confounding factors (eg, alcohol, substance abuse)
- Any comorbid conditions known to cause sexual dysfunction (eg, diabetes)
- Any ongoing symptoms of depression

Additional resources

- International Index of Erectile Function (IIEF) www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/iief.pdf
- Sexual Health Inventory for Men (SHIM) www.pfizerpro.com/sites/default/files/shim_vgu610709-01.pdf

Table 3. Managing Sexual Dysfunction Associated With Antidepressants and Antipsychotics[5,8,9,25,28]

Medication management	Dosage reduction of current medication
	Scheduled drug holidays
	Adjunct medications ***General*** Phosphodiesterase-5 inhibitors, testosterone ***Antidepressants*** Bupropion, methylphenidate ***Antipsychotics*** Dopamine agonist, aripiprazole
	Switching to another medication (In particular, for antipsychotics, switching to aripiprazole)
	Waiting for spontaneous remission after discontinuing medication
Naturopathic remedies	Herbal remedies for depression Eg, Ginkgo biloba, yohimbine, saffron (*Crocus sativus L*), Maca root (*Lepidium meyenii*), Rosa damascena oil
	Acupuncture
Lifestyle alterations	Exercise
	Scheduling sexual activity based on medication administration
	Vibratory or visual stimulation prior to sexual activity
	Psychotherapy and/or couples counseling

patients.[25] For the most part, management strategies include a wait and see approach, reduction in medication dosage, switching medications, adjunct medications, cognitive behavioral therapy (CBT), and behavioral modifications (see the following subsections) (**Table 3**).[25,28] Regardless of which management strategy a clinician employs, treatment should always follow an individualized, patient-centered approach, focusing primarily on minimizing SD without compromising the psychiatric well-being of the patient.[28] Clinicians must also determine what strategies their patients have already tried to identify which treatments are more likely to be effective.[28] Specifically regarding SSRI use, clinicians must educate their patients about the risks of PSSD.[13,28] Although various management options for PSSD have been proposed, none have proven effective and there remains no definitive treatment.

Management Strategies

WAIT AND SEE. A wait and see approach may prove beneficial for some patients, as side effects from medications, particularly SSRIs, can dissipate over time. One study suggested that SD remits in 6 months for approximately 80% of patients, while others report remission in only 10%.[25]

MEDICATION REDUCTION. Another approach involves reduction in dosage, if feasible. SD related to antidepressants may be a dose-dependent adverse effect; therefore, reduction of dosage to a minimum effective dose may be beneficial. However, reduction in dosage could compromise the patient's mental health, and depending on the particular medication, improvement in sexual function may take several months, which makes this strategy inappropriate for some patients.[25] Moreover, many patients only require short-term courses of antidepressants, so in the appropriate setting, cessation of the medication altogether could be the best option.

DRUG HOLIDAYS. Although there is some evidence supporting the use of drug holidays (ie, temporarily discontinuing the drug on weekends), this may lead to withdrawal symptoms or medication nonadherence and is not recommended.[25,29]

CHANGING MEDICATIONS. Another strategy involves switching medications, in particular from an SSRI to a non-SSRI antidepressant. This may allow for the continuation of psychiatric treatment while potentially improving sexual function and adherence. For instance, switching to bupropion, an antidepressant with a favorable sexual side effect profile, has been used with success in patients with previous SSRI-induced SD,[30] although these medications have their own unique set of side effects which, in some situations, may be even more distressing to the patient.[28]

INTERVENTIONS ADDRESSING SD. Augmentation strategies consisting of adding another pharmacological or psychotherapeutic treatment to counteract the psychotropic-related SD have shown success in some patients. Addition of bupropion, tamsulosin, phosphodiesterase-5 inhibitors (eg, sildenafil), testosterone, and 5-HT_2 antagonists (eg, mirtazapine) to counteract SD without SSRI cessation can be an effective strategy for both men and women.[1] CBT, sex therapy, couples counseling, acupuncture, and behavioral modifications such as the use of vibrators and scheduled sexual activity (ie, in the morning before the daily SSRI dose) have demonstrated mixed benefit.[25,28]

Concluding Thoughts

SD from psychiatric medications is relatively common. If a patient develops SD, multiple treatment strategies exist to help alleviate it. However, SD cannot be treated until it is first identified. Early, continuous, and direct conversations with patients about their sexual function is necessary—and should be anything but taboo.

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CAPLYTA FOR SCHIZOPHRENIA IN ADULTS

Important Safety Information

Boxed Warning: Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. CAPLYTA is not approved for the treatment of patients with dementia-related psychosis.

Contraindications: CAPLYTA is contraindicated in patients with known hypersensitivity to lumateperone or any components of CAPLYTA. Reactions have included pruritus, rash (e.g. allergic dermatitis, papular rash, and generalized rash), and urticaria.

Warnings & Precautions: Antipsychotic drugs have been reported to cause:

- **Cerebrovascular Adverse Reactions in Elderly Patients with Dementia-Related Psychosis,** including stroke and transient ischemic attack. See Boxed Warning above.
- **Neuroleptic Malignant Syndrome,** which is a potentially fatal reaction. Signs and symptoms include: hyperpyrexia, muscle rigidity, delirium, autonomic instability, elevated creatinine phosphokinase, myoglobinuria (and/or rhabdomyolysis), and acute renal failure. Manage with immediate discontinuation of CAPLYTA and provide intensive symptomatic treatment and monitoring.
- **Tardive Dyskinesia,** a syndrome of potentially irreversible, dyskinetic, and involuntary movements which may increase as the duration of treatment and total cumulative dose increases. The syndrome can develop after a relatively brief treatment period, even at low doses. It may also occur after discontinuation of treatment. Given these considerations, CAPLYTA should be prescribed in a manner most likely to reduce the risk of tardive dyskinesia. Discontinue CAPLYTA if clinically appropriate.
- **Metabolic Changes,** including hyperglycemia, diabetes mellitus, dyslipidemia, and weight gain. Hyperglycemia, in some cases extreme and associated with ketoacidosis, hyperosmolar coma or death, has been reported in patients treated with antipsychotics. Measure weight and assess fasting plasma glucose and lipids when initiating CAPLYTA and monitor periodically during long-term treatment.
- **Leukopenia, Neutropenia, and Agranulocytosis (including fatal cases).** Perform complete blood counts in patients with pre-existing low white blood cell count (WBC) or history of leukopenia or neutropenia. Discontinue CAPLYTA if clinically significant decline in WBC occurs in absence of other causative factors.

IT'S REAL PROGRESS.

Choose CAPLYTA to help control your patients' symptoms—with a metabolic, weight, and EPS profile similar to placebo in 4- to 6-week trials[1]

- **Antipsychotic drugs have been reported to cause[1]:**
  - **Hyperglycemia, diabetes, dyslipidemia, and weight gain. Blood glucose, weight, and lipids should be monitored periodically during long-term treatment**
  - **Tardive dyskinesia (TD), which may increase as the duration of treatment and cumulative dose increases, and can develop after brief treatment periods or after discontinuation. See full Important Safety Information, including Boxed Warning, below**

- **Orthostatic Hypotension and Syncope.** Monitor heart rate and blood pressure and warn patients with known cardiovascular or cerebrovascular disease. Orthostatic vital signs should be monitored in patients who are vulnerable to hypotension.
- **Falls.** CAPLYTA may cause somnolence, postural hypotension, and motor and/or sensory instability, which may lead to falls and, consequently, fractures and other injuries. Assess patients for risk when using CAPLYTA.
- **Seizures.** Use CAPLYTA cautiously in patients with a history of seizures or with conditions that lower seizure threshold.
- **Potential for Cognitive and Motor Impairment.** Advise patients to use caution when operating machinery or motor vehicles until they know how CAPLYTA affects them.
- **Body Temperature Dysregulation.** Use CAPLYTA with caution in patients who may experience conditions that may increase core body temperature such as strenuous exercise, extreme heat, dehydration, or concomitant anticholinergics.
- **Dysphagia.** Use CAPLYTA with caution in patients at risk for aspiration.

Drug Interactions: Avoid concomitant use with CYP3A4 inducers, moderate or strong CYP3A4 inhibitors and UGT inhibitors.

Special Populations: Neonates exposed to antipsychotic drugs during the third trimester of pregnancy are at risk for extrapyramidal and/or withdrawal symptoms following delivery. Breastfeeding is not recommended. Avoid use in patients with moderate or severe hepatic impairment.

Adverse Reactions: The most common adverse reactions in clinical trials with CAPLYTA vs. placebo were somnolence/sedation (24% vs. 10%) and dry mouth (6% vs. 2%).

Please see the accompanying Brief Summary of Prescribing Information on the following page.

Reference: 1. CAPLYTA prescribing information, 2019.

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CAPLYTA®
(lumateperone) capsules
42 mg

Brief Summary of Full Prescribing Information.

CAPLYTA™ (lumateperone) capsules, for oral use
Initial U.S. Approval: 2019

WARNING: INCREASED MORTALITY IN ELDERLY PATIENTS WITH DEMENTIA-RELATED PSYCHOSIS

Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. CAPLYTA is not approved for the treatment of patients with dementia-related psychosis.

INDICATIONS AND USAGE

CAPLYTA is indicated for the treatment of schizophrenia in adults.

CONTRAINDICATIONS

CAPLYTA is contraindicated in patients with history of hypersensitivity reaction to lumateperone. Reactions have included pruritus, rash (e.g. allergic dermatitis, papular rash, and generalized rash), and urticaria.

WARNINGS AND PRECAUTIONS

Increased Mortality in Elderly Patients with Dementia-Related Psychosis: Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. Analyses of 17 placebo-controlled trials (modal duration of 10 weeks), largely in patients taking atypical antipsychotic drugs, revealed a risk of death in the drug-treated patients of between 1.6 to 1.7 times that in placebo-treated patients. Over the course of a typical 10-week controlled trial, the rate of death in drug-treated patients was about 4.5%, compared to a rate of about 2.6% in placebo-treated patients. Although the causes of death were varied, most of the deaths appeared to be either cardiovascular (e.g., heart failure, sudden death) or infectious (e.g., pneumonia) in nature. CAPLYTA is not approved for the treatment of patients with dementia-related psychosis.

Cerebrovascular Adverse Reactions, Including Stroke, in Elderly Patients with Dementia-Related Psychosis: In placebo-controlled trials in elderly subjects with dementia, patients randomized to risperidone, aripiprazole, and olanzapine had a higher incidence of stroke and transient ischemic attack, including fatal stroke. CAPLYTA is not approved for the treatment of patients with dementia-related psychosis.

Neuroleptic Malignant Syndrome: Neuroleptic Malignant Syndrome (NMS), a potentially fatal symptom complex, has been reported in association with administration of anti-psychotic drugs. Clinical manifestations of NMS are hyperpyrexia, muscle rigidity, delirium, and autonomic instability. Additional signs may include elevated creatinine phosphokinase, myoglobinuria (rhabdomyolysis), and acute renal failure. If NMS is suspected, immediately discontinue CAPLYTA and provide intensive symptomatic treatment and monitoring.

Tardive Dyskinesia: Tardive dyskinesia, a syndrome consisting of potentially irreversible, involuntary, dyskinetic movements, may develop in patients treated with antipsychotic drugs. The risk appears to be highest among the elderly, especially elderly women, but it is not possible to predict which patients are likely to develop the syndrome. Whether antipsychotic drug products differ in their potential to cause tardive dyskinesia is unknown. The risk of tardive dyskinesia and the likelihood that it will become irreversible increase with the duration of treatment and the cumulative dose. The syndrome can develop after a relatively brief treatment period, even at low doses. It may also occur after discontinuation of treatment. Tardive dyskinesia may remit, partially or completely, if antipsychotic treatment is discontinued. Antipsychotic treatment itself, however, may suppress (or partially suppress) the signs and symptoms of the syndrome, possibly masking the underlying process. The effect that symptomatic suppression has upon the long-term course of tardive dyskinesia is unknown. Given these considerations, CAPLYTA should be prescribed in a manner most likely to reduce the risk of tardive dyskinesia. Chronic antipsychotic treatment should generally be reserved for patients: 1) who suffer from a chronic illness that is known to respond to antipsychotic drugs; and 2) for whom alternative, effective, but potentially less harmful treatments are not available or appropriate. In patients who do require chronic treatment, use the lowest dose and the shortest duration of treatment producing a satisfactory clinical response. Periodically reassess the need for continued treatment. If signs and symptoms of tardive dyskinesia appear in a patient on CAPLYTA, drug discontinuation should be considered. However, some patients may require treatment with CAPLYTA despite the presence of the syndrome.

Metabolic Changes: Antipsychotic drugs have caused metabolic changes, including hyperglycemia, diabetes mellitus, dyslipidemia, and weight gain. Although all of the drugs in the class have been shown to produce some metabolic changes, each drug has its own specific risk profile. Hyperglycemia and Diabetes Mellitus - Hyperglycemia, in some cases extreme and associated with ketoacidosis, hyperosmolar coma or death, has been reported in patients treated with antipsychotics. There have been reports of hyperglycemia in patients treated with CAPLYTA. Assess fasting plasma glucose before or soon after initiation of antipsychotic medication and monitor periodically during long-term treatment. In pooled data from short-term (4- to 6-week), placebo-controlled trials of adult patients with schizophrenia, mean changes from baseline and the proportion of patients with shifts from normal to greater than normal levels of fasting glucose in patients treated with CAPLYTA were similar to those in patients treated with placebo. In an uncontrolled open-label trial of CAPLYTA for up to 1 year in patients with stable schizophrenia, the percentages of patients with shifts in fasting glucose and insulin values from normal to high were 8% and 12%, respectively. 4.7% of patients with normal hemoglobin A1c (<6.5%) at baseline developed elevated levels (≥6.5%) post-baseline. Dyslipidemia - Antipsychotics have caused adverse alterations in lipids. Before or soon after initiation of antipsychotic medications, obtain a fasting lipid profile at baseline and monitor periodically during treatment. In pooled data from short-term (4- to 6-week), placebo-controlled trials of adult patients with schizophrenia, mean changes from baseline and the proportion of patients with shifts to higher levels of fasting total cholesterol and triglycerides were similar in patients treated with CAPLYTA and placebo. In an uncontrolled open-label trial of CAPLYTA for up to 1 year in patients with stable schizophrenia, the percentages of patients with a shift from normal to high were 8%, 5%, and 4% for total cholesterol, triglycerides, and LDL cholesterol, respectively. Weight Gain - Weight gain has been observed with use of antipsychotics. Monitor weight at baseline and frequently thereafter. In pooled data from placebo-controlled trials of adult patients with schizophrenia, mean changes from baseline and the proportion of patients with an increase in weight ≥7% from baseline to end of study was similar in patients treated with CAPLYTA and placebo. In an uncontrolled open-label trial of CAPLYTA for up to 1 year in patients with stable schizophrenia, the mean change in body weight was approximately -2 kg (SD 5.6) at Day 175 and approximately - 3.2 kg (SD 7.4) at Day 350.

Leukopenia, Neutropenia, and Agranulocytosis: Leukopenia and neutropenia have been reported during treatment with antipsychotic agents, including CAPLYTA. Agranulocytosis (including fatal cases) has been reported with other agents in the class. Possible risk factors for leukopenia and neutropenia include pre-existing low white blood cell count (WBC) or absolute neutrophil count (ANC) and history of drug-induced leukopenia or neutropenia. In patients with a pre-existing low WBC or ANC or a history of drug-induced leukopenia or neutropenia, perform a complete blood count (CBC) frequently during the first few months of therapy. In such patients, consider discontinuation of CAPLYTA at the first sign of a clinically significant decline in WBC in the absence of other causative factors. Monitor patients with clinically significant neutropenia for fever or other symptoms or signs of infection and treat promptly if such symptoms or signs occur. Discontinue CAPLYTA in patients with absolute neutrophil count < 1000/mm^3 and follow their WBC until recovery.

Orthostatic Hypotension and Syncope: Atypical antipsychotics cause orthostatic hypotension and syncope. Generally, the risk is greatest during initial dose administration. In these clinical trials the frequencies of orthostatic hypotension for CAPLYTA and placebo were 0.7% and 0%, respectively. The rates of syncope for CAPLYTA and placebo were 0.2% and 0.2%. Orthostatic vital signs should be monitored in patients who are vulnerable to hypotension (e.g., elderly patients, patients with dehydration, hypovolemia, and concomitant treatment with antihypertensive medications), patients with known cardiovascular disease (history of myocardial infarction, ischemic heart disease, heart failure, or conduction abnormalities), and patients with cerebrovascular disease. CAPLYTA has not been evaluated in patients with a recent history of myocardial infarction or unstable cardiovascular disease. Such patients were excluded from pre-marketing clinical trials.

Falls: Antipsychotics, including CAPLYTA, may cause somnolence, postural hypotension, and motor and sensory instability, which may lead to falls and, consequently, fractures and other injuries. For patients with diseases, conditions or medications that could exacerbate these effects, complete fall risk assessments when initiating antipsychotic treatment and periodically during long-term treatment.

Seizures: Like other antipsychotic drugs, CAPLYTA may cause seizures. The risk is greatest in patients with a history of seizures or with conditions that lower the seizure threshold. Conditions that lower the seizure threshold may be more prevalent in older patients.

Potential for Cognitive and Motor Impairment: CAPLYTA, like other antipsychotics, may cause somnolence and has the potential to impair judgment, thinking, and motor skills. In short-term (i.e., 4- to 6-week) placebo-controlled clinical trials of patients with schizophrenia, somnolence and sedation were reported in 24% of CAPLYTA-treated patients, compared to 10% of placebo-treated patients. Patients should be cautioned about operating hazardous machinery, including motor vehicles, until they are reasonably certain that therapy with CAPLYTA does not affect them adversely.

Body Temperature Dysregulation: Atypical antipsychotics may disrupt the body's ability to reduce core body temperature. Strenuous exercise, exposure to extreme heat, dehydration, and anticholinergic medications may contribute to an elevation in core body temperature; use CAPLYTA with caution in patients who may experience these conditions.

Dysphagia: Esophageal dysmotility and aspiration have been associated with antipsychotic drug use. Antipsychotic drugs, including CAPLYTA, should be used cautiously in patients at risk for aspiration.

ADVERSE REACTIONS

The following adverse reactions are discussed in detail in other sections of the labeling: Increased Mortality in Elderly Patients with Dementia-Related Psychosis; Cerebrovascular Adverse Reactions, Including Stroke, in Elderly Patients with Dementia-related Psychosis; Neuroleptic Malignant Syndrome; Tardive Dyskinesia; Metabolic Changes; Leukopenia, Neutropenia, and Agranulocytosis; Orthostatic Hypotension and Syncope; Falls; Seizures; Potential for Cognitive and Motor Impairment; Body Temperature Dysregulation; Dysphagia.

Clinical Trials Experience: Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice. The safety of CAPLYTA has been evaluated in 1724 adult patients with schizophrenia exposed to one or more doses. Of these patients, 811 participated in short-term (4- to 6-week), placebo-controlled trials with doses ranging from 14 to 84 mg/day. A total of 329 CAPLYTA-exposed patients had at least 6 months of exposure and 108 had at least 1 year of exposure to the 42-mg dose of CAPLYTA. There was no single adverse reaction leading to discontinuation that occurred at a rate of >2% in CAPLYTA-treated patients. The most common adverse reactions (incidence of at least 5% of patients exposed to CAPLYTA and greater than twice the rate of placebo) are somnolence/sedation and dry mouth. Adverse reactions associated with CAPLYTA (incidence of at least 2% in patients exposed to CAPLYTA and greater than placebo) are shown in Table 1. The following findings are based on the pooled short-term (4- to 6-week), placebo-controlled studies in adult patients with schizophrenia in which CAPLYTA was administered at a daily dose of 42 mg (N=406). Table 1 in the full Prescribing Information displays Adverse Reactions Reported in ≥2% of CAPLYTA-Treated Patients in 4- to 6-week Schizophrenia Trials. Adverse reaction is followed by percentage of patients treated with CAPLYTA 42mg (N=406) and Patients treated with Placebo (N=412) in parentheses. Somnolence/ Sedation (24%, 10%); Nausea (9%, 5%); Dry Mouth (6%, 2%); Dizziness[1] (5%, 3%); Creatine Phosphokinase Increased (4%, 1%); Fatigue (3%, 1%); Vomiting (3%, 2%); Hepatic Transaminases Increased[2] (2%, 1%); Decreased Appetite (2%, 1%). [1] Dizziness, dizziness postural; [2] ALT, AST, "hepatic enzymes" increased, or liver function test abnormal.

Dystonia: Symptoms of dystonia, prolonged abnormal contractions of muscle groups, may occur in susceptible individuals during the first few days of treatment. Dystonic symptoms include: spasm of the neck muscles, sometimes progressing to tightness of the throat, swallowing difficulty, difficulty breathing, and/or protrusion of the tongue. Although these symptoms can occur at low doses, they occur more frequently and with greater severity with high potency and higher doses of first-generation antipsychotic drugs. An elevated risk of acute dystonia is observed in males and younger age groups.

Extrapyramidal Symptoms: In the 4- to 6-week, placebo-controlled trials, the frequency of reported events related to extrapyramidal symptoms (EPS), including akathisia, extrapyramidal disorder, muscle spasms, restlessness, musculoskeletal stiffness, dyskinesia, dystonia, muscle twitching, tardive dyskinesia, tremor, drooling, and involuntary muscle contractions was 6.7% for CAPLYTA and 6.3% for placebo. In the 4- to 6-week trials, data were collected using the Simpson Angus Scale (SAS) for EPS (total score ranges from 0 to 40), the Barnes Akathisia Rating Scale (BARS) for akathisia (total score ranges from 0 to 14), and the Abnormal Involuntary Movement Scale (AIMS) for dyskinesia (total score ranges from 0 to 28). The mean changes from baseline for CAPLYTA-treated patients and placebo-treated patients were 0.1 and 0 for the SAS, -0.1 and 0 for the BARS, and 0.1 and 0 for the AIMS, respectively.

DRUG INTERACTIONS

Table 2 in the full Prescribing Information displays Drugs Having Clinically Important Interactions with CAPLYTA. *Moderate or Strong CYP3A4 Inhibitors:* Concomitant use of CAPLYTA with moderate or strong CYP3A4 inhibitors increases lumateperone exposure, which may increase the risk of adverse reactions. Avoid concomitant use of CAPLYTA with moderate or strong CYP3A4 inhibitors. Examples of CYP3A4 inhibitors include: *Moderate inhibitors* - Amprenavir, ciprofloxacin, cyclosporine, diltiazem, erythromycin, fluconazole, fluvoxamine, verapamil. *Strong inhibitors* - Clarithromycin, grapefruit juice, itraconazole, voriconazole, nefazodone, ritonavir, nelfinavir. ***CYP3A4 Inducers:*** Concomitant use of CAPLYTA with CYP3A4 inducers decreases the exposure of lumateperone. Avoid concomitant use of CAPLYTA with CYP3A4 inducers. Examples of CYP3A4 inducers include: Carbamazepine, phenytoin, rifampin, St. John's wort, bosentan, efavirenz, etravirine, modafinil, nafcillin, aprepitant, armodafinil, pioglitazone, prednisone. ***UGT Inhibitors:*** Concomitant use of CAPLYTA with UGT inhibitors may increase the exposure of lumateperone and/or its metabolites. Avoid concomitant use of CAPLYTA with UGT inhibitors. Examples of UGT inhibitors include: Valproic acid, probenecid

USE IN SPECIFIC POPULATIONS

Pregnancy: Pregnancy Exposure Registry - There is a pregnancy exposure registry that monitors pregnancy outcomes in women exposed to atypical antipsychotics, including CAPLYTA, during pregnancy. Healthcare providers are encouraged to register patients by contacting the National Pregnancy Registry for Atypical Antipsychotics at 1-866-961-2388 or online at http://womensmentalhealth.org/clinical-and-research-programs/-pregnancyregistry/. Risk Summary - Neonates exposed to antipsychotic drugs during the third trimester are at risk for extrapyramidal and/or withdrawal symptoms following delivery. Available data from case reports on CAPLYTA use in pregnant women are insufficient to establish any drug associated risks for birth defects, miscarriage, or adverse maternal or fetal outcomes. There are risks to the mother associated with untreated schizophrenia and with exposure to antipsychotics, including CAPLYTA, during pregnancy. In animal reproduction studies, no malformations were observed with oral administration of lumateperone to pregnant rats and rabbits during organogenesis at doses up to 2.4 and 9.7 times, respectively, the maximum recommended human dose (MRHD) of 42 mg/day on a mg/m^2 basis. When pregnant rats were administered lumateperone during the period of organogenesis through lactation, the number of perinatal deaths of pups was increased at 4.9 times the MRHD, with no adverse effects on pups at 2.4 times the MRHD. The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2 to 4% and 15 to 20%, respectively. Clinical Considerations - *Disease associated maternal and/or embryo/fetal risk:* There is risk to the mother from untreated schizophrenia, including increased risk of relapse, hospitalization, and suicide. Schizophrenia is associated with increased adverse perinatal outcomes, including preterm birth. It is not known if this is a direct result of the illness or other comorbid factors. *Fetal/neonatal adverse reactions:* Extrapyramidal and/or withdrawal symptoms, including agitation, hypertonia, hypotonia, tremor, somnolence, respiratory distress, and feeding disorder have been reported in neonates who were exposed to antipsychotic drugs during the third trimester of pregnancy. These symptoms have varied in severity. Monitor neonates for extrapyramidal and/or withdrawal symptoms and manage symptoms appropriately. Some neonates recovered within hours or days without specific treatment; others required prolonged hospitalization. Data - *Animal Data:* Pregnant rats were treated with oral doses of 3.5, 10.5, 21, and 63 mg/kg/day lumateperone (0.8, 2.4, 4.9, and 14.6 times the MRHD on a mg/m^2 basis) during the period of organogenesis. No malformations were observed with lumateperone at doses up to 2.4 times the MRHD. Findings of decreased body weight were observed in fetuses at 4.9 and 14.6 times the MRHD. Findings of incomplete ossification and increased incidences of visceral and skeletal variations were recorded in fetuses at 14.6 times the MRHD, a dose that induced maternal toxicity. Pregnant rabbits were treated with oral doses of 2.1, 7, and 21 mg/kg/day lumateperone (1.0, 3.2, and 9.7 times the MRHD on a mg/m^2 basis) during the period of organogenesis. Lumateperone did not cause adverse developmental effects at doses up to 9.7 times the MRHD. In a study in which pregnant rats were administered oral doses of 3.5, 10.5, and 21 mg/kg/day lumateperone (0.8, 2.4, and 4.9 times the MRHD on a mg/m^2 basis) during the period of organogenesis and through lactation, the number of live-born pups was decreased at 2.4 and 4.9 times the MRHD, and early postnatal deaths increased at a dose 4.9 times the MRHD. Impaired nursing and decreased body weight gain in pups were observed at 4.9 times, but not at 2.4 times, the MRHD. Pregnant rats were treated with a human metabolite of lumateperone (reduced ketone metabolite) at oral doses of 15, 60, and 100 mg/kg/day (1.2, 19, and 27 times the exposure to this metabolite at the MRHD of lumateperone based on AUC plasma exposure) during the period of organogenesis. This metabolite did not cause adverse developmental effects at a dose 1.2 times the exposure at the MRHD of lumateperone; however, it caused an increase in visceral malformations (cleft palate) at 27 times and skeletal malformations at 19 times the exposure at the MRHD of lumateperone, a dose that induced maternal toxicity.

Lactation: Risk Summary - There are no available data on the presence of lumateperone or its metabolites in human milk or animal milk, the effects on the breastfed infant, or the effects on milk production. Toxicity in animals has been linked to the formation of aniline metabolites of lumateperone. Although aniline metabolites were not present in (adult) humans at quantifiable levels, it is unknown whether infants exposed to lumateperone will exhibit comparable lumateperone metabolism and elimination pathways as adults. In addition, there are published reports of sedation, failure to thrive, jitteriness, and extrapyramidal symptoms (tremors and abnormal muscle movements) in breastfed infants exposed to antipsychotics. Based on findings of toxicity in animal studies and the potential for serious adverse reactions in the breastfed infant, breastfeeding is not recommended during treatment with lumateperone.

Females and Males of Reproductive Potential: Infertility - Based on findings from animal studies, lumateperone may impair male and female fertility.

Pediatric Use: Safety and effectiveness of CAPLYTA have not been established in pediatric patients.

Geriatric Use: Controlled clinical studies of CAPLYTA did not include any patients aged 65 or older to determine whether or not they respond differently from younger patients. Antipsychotic drugs increase the risk of death in elderly patients with dementia-related psychosis. CALYPTA is not approved for the treatment of patients with dementia-related psychosis.

Hepatic Impairment: Use of CAPLYTA is not recommended for patients with moderate (Child-Pugh class B) to severe hepatic impairment (Child-Pugh class C). Patients with moderate and severe hepatic impairment experienced higher exposure to lumateperone. No dosage adjustment is recommended for patients with mild hepatic impairment (Child-Pugh A).

OVERDOSAGE

No specific antidotes for CAPLYTA are known. In managing overdose, provide supportive care, including close medical supervision and monitoring and consider the possibility of multiple drug involvement. In case of overdose, consult a Certified Poison Control Center (1-800-222-1222 or www.poison.org).

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IN MEMORIAM

Eulogies for Passionate Psychiatrists

» H. Steven Moffic, MD

If we have learned nothing else during the pandemic, it is that the time we have with our loved ones, family, friends, and colleagues is precious and fleeting. Here are some psychiatrists who have died since our last series of eulogies, in order of when I learned of their deaths. As usual, the sources of information were published obituaries, knowledge I had of their work, and any personal connections that I had.

Darold Treffert, MD

My Name Is a Palindrome!

Some readers may recall that Treffert was among the psychiatrists who wrote his self-portrait, "Get That Piece of Paper" (October 13, 2019), for the *Psychiatric Times™* series of the same name. It was a poignant, folksy piece about his father, who wanted him to be sure to go far in his education so that he would not be limited in his options. What a prescient piece of advice, given the uniqueness of Treffert's career.

As part of a career plan for psychiatric residents when he went through residency, Treffert was paid a living wage for 2 years of service at a Wisconsin psychiatric center. He was assigned to the Winnebago Mental Health Institute, where he started a children's unit. There, he encountered some very unusual children who had unique mental abilities, like being able to assemble a 200-piece puzzle upside down.

That experience led to his special interest in savant syndrome, characterized by "islands of genius" within overall limitations, and consequently to consulting on the movie *Rain Man*, starring Dustin Hoffman, through which the public learned about this syndrome. That, in turn, led to many appearances on national media over the years. He ended his career as research director at the Treffert Center, an integrated education and treatment center for children.

Since I also worked in Wisconsin, I knew Darold both personally and professionally. He was beloved, as was conveyed by all the tributes he received on social media after he died at the age of 87 on December 14, 2020.

One time, upon meeting the son of colleague Lamis Jabri, MD, he said:

"Did you know my name is a palindrome?"

From then on, he was affectionately known as Dr Palindrome by many, as his last name could be spelled the same backward or forward.

Treffert often wondered whether there was a little bit of Rain Man in all of us that perhaps could be assessed. Do you have any?

Rodrigo Muñoz, MD

The First Hispanic President of the APA

I knew Muñoz from our shared interest in the cultural aspects of psychiatry. When he became president of the American Psychiatric Association (APA) in 1998-1999, I became president of the American Association for Social Psychiatry. We both tried to highlight underserved minorities during our respective terms.

Muñoz was born in Colombia, where one of his grandfathers was renowned as a heroic revolutionary figure. Later, Muñoz left Colombia to begin his residency at a hospital affiliated with Yale. There, he came under the influence of Daniel X. Freedman, MD, as I did too when I was a resident at the University of Chicago.

In 1970, Muñoz moved to Sheboygan, Wisconsin, just north of Milwaukee, where I now live. After his first wife passed away, he and his 3 children moved to California.

Muñoz was a beloved educator and received numerous teaching awards from the University of California, San Diego. He also became a role model and hero to many international medical graduates and minority physicians.

Still, his major focus was being a clinician, like he was in Sheboygan, as evidenced by his chosen 1999 annual meeting theme: "The Clinician." Of course, patient care is the essence of who we all are.

Munoz died on November 28, 2020, at age 81.

Arthur Meyerson, MD

Community Psychiatrist at Ground Zero

Meyerson was a lifelong New Yorker and a leader in the field of psychiatry. He was a role model for me because of his focus on community mental health, and he was beloved by many of the community psychiatrists who knew him. Early in his career, he pressed for the rights of the chronically mentally ill.

Usually, community psychiatry is practiced for the poor over an extensive geographical area, what used to be called "catchment areas." However, Meyerson also practiced a unique community service for the traumatized at a much more constricted area. After September 11, 2001, he provided leadership and free therapy to those who needed it, in his role as clinical director for Disaster Psychiatry Outreach at Ground Zero.

Besides psychiatry, Meyerson was also quite involved with the arts, including reading, writing poetry, and singing with his glee club. This is reflected in the fact that his family asked that donations made in his name be sent to the Young People's Chorus and the University Glee Club, both in New York City.

Meyerson died on January 27, 2021, at age 84. He is survived by his wife, Carol Bernstein, MD, also a renowned psychiatrist.

Rabbi Abraham Twerski, MD

Religion and Psychiatry Meet in the "Peanuts" Comic Strips

Twerski was one of the rare psychiatrists who was also a rabbi. Or was it the other way around—a rabbi who was also a psychiatrist? His career made it hard to distinguish, although he mainly worked in psychiatric settings. I identified him as both, as he did in his book *The Rabbi & the Nuns: The Inside Story of a Rabbi's Therapeutic Work With the Sisters of St. Francis*.

When growing up in Milwaukee as a member of the Twerski Hasidic dynasty of rabbis, this Twerski had an interest in the comics as lighthearted entertainment. Later, to reduce his own stress, he kept these books, especially compilations of the "Peanuts" comic strips, at his desk. Twerski specialized in substance abuse treatment, and he once had a patient who could not admit that he was an alcoholic until Twerski showed him the familiar "Peanuts" strip of Charlie Brown trying—yet again— to kick the football held by his nemesis Lucy. The patient connected Charlie Brown's failure to appreciating his own limitations.

Among the scores of books he authored, Twerski wrote several on the wisdom of the "Peanuts" comic strips, using them for educational and therapeutic teaching, especially self-esteem.

Eventually, a lasting friendship developed between Twerski and "Peanuts" creator Charles Schultz. After Schultz died, Twerski often wore a "Peanuts" tie as a public tribute. Rabbi and psychiatrist Twerski died at age 90 after battling COVID-19.

Robert J. Ross, MD, PhD

Combining Science and Clinical Care

Most of the psychiatrist eulogies that I have shared have focused on psychiatrists my age (74 years) or older. Not so with Ross, who died at home on January 17, 2021, at age 38. Given his promising career, his death seems especially tragic.

Ross, like me, went to medical school at Yale, but in his case, he pursued the even more rigorous combined MD/PhD program. He then continued on to the psychiatric residency program at Yale, where he was awarded the Ira R. Levine Award for his skill and devotion in caring for patients with severe psychiatric illness. He was beloved as both a teacher and a colleague. We can only imagine where his twin loves of basic science and clinical care would have led.

Kenneth Altshuler, MD

Hearing the Needs of the Deaf

I spent about a dozen years of my career at Baylor College of Medicine in Houston between 1977 and 1989, and it did not take long for me to know of Altshuler, who also came to Texas in 1977 to begin his career at the University of Texas, Southwestern. He reached the heights of academic psychiatry over a 42-year career, 23 years of which he spent as chair of the Department of Psychiatry. While there, I watched from afar as he transformed a fledging department into one of national scientific renown, as the faculty grew from 6 full-time members to more than 100 psychiatrists.

Altshuler's diverse interests in psychiatry extended far beyond administration, including psychoanalytic principles, geriatric psychiatry, dreams, and mental illness in the deaf. His services for the deaf were duplicated in many countries.

Not only did he receive many awards, but he also set up philanthropic funds for clinical psychiatry, education, and communication disorders. Despite his dedication to work, he kept time for his family, including hosting family vacations. He died on January 6, 2021, at age 91.

Dr Moffic *is an award-winning psychiatrist who has specialized in the cultural and ethical aspects of psychiatry. He received the one-time designation of being a Hero of Public Psychiatry from the Assembly of the American Psychiatric Association in 2002. He has recently been leading Tikkun Olam advocacy movements on climate instability, burnout, Islamophobia, and anti-Semitism for a better world. He serves on the Editorial Board of* Psychiatric Times™. ❐

Finding Love Among the Highs and Lows of Ultradian Bipolar Disorder

» Akriti Sinha, MD

When Amazon Prime decided to base a television series on selected stories from the "Modern Love" column of *The New York Times*, I was excited. I had been an avid reader of the column, in which individuals reflect on the intricate nature of human relationships. The episode that struck me most was "Take Me As I Am, Whoever I Am," based on the essay written by Terri Cheney in 2008.[1] Then an entertainment lawyer, Terri wrote about her struggles with ultradian bipolar disorder, revealing how she hid her condition from her friends before ultimately going public.

In the series, Terri is played by Anne Hathaway. The Oscar-winning actress takes the viewer through the roller coaster of bipolar highs and lows. The episode begins with Lexi (Hathaway) during a manic high at a supermarket. She sports loud makeup, sequins, and bright clothes. She is instantly drawn to a man named Jeff and lands herself a date with him that week. The action segues into a flash-mob dance reminiscent of a scene in the movie *La La Land*.

As might be expected, the high does not last. As soon as Lexi reaches home, she abruptly sinks into depression and curls up in a fetal position, almost catatonic in her bed. While she does manage to wake herself up for the date, she appears slow, dysphoric, withdrawn, and unkempt, making Jeff wonder if she has a twin.

A few mornings later, Lexi wakes up—euphoric again—to the sound of birds chirping, and she calls Jeff for another date. However, by the time he arrives that night, she has flipped again, going from dancing around her apartment to sobbing uncontrollably on the bathroom floor. When Jeff walks away, she decides things need to change. She needs to give everyone a chance to know the real Lexi.

The episode illustrated how stigma often prevents individuals from getting the psychiatric help they need. Particularly unusual was the portrayal of a high-functioning lawyer with ultra-ultra rapid cycling (ultradian) bipolar disorder, an uncommon illness for even psychiatrists to see and diagnose. Lexi had almost no baseline or a euthymic phase.

As a portrayal of bipolar disorder, the episode has both strong and weak points. Hathaway's portrayal of Lexi's depression makes you feel empathetic. Crumpled on her bathroom floor in tears, hopeless and terrified, Lexi is a realistic portrayal of many patients' experiences. Lexi's mania, however, looks as glamorous as a Hollywood movie. She is super-productive and euphoric, with no impairment or mixed symptoms. Unfortunately, many patients will not be able to relate.

"As soon as Lexi reaches home, she abruptly sinks into depression and curls up in a fetal position, almost catatonic in her bed."

Pluses and minuses aside, it is heartening to think that viewers will see and empathize with Lexi's struggles. Ultradian bipolar disorder can be difficult to recognize, even for psychiatrists, and it can be a controversial diagnosis to make.[2] While 12% to 24% of patients with bipolar disorder experience rapid cycling (defined as 4 or more mood episodes in a year), the ultradian form is characterized by multiple episodes in a day. Some psychiatrists would prefer to classify it as a mixed state. Ultradian might also be mistaken for borderline personality disorder (BPD), but there are ways to distinguish them. For instance, mood cycling in BPD is closely tied to events in patients' emotional lives, so it may appear random. In contrast, the underlying chemical disturbance in ultradian bipolar disorder leads to more regular mood cycling.

Despite its rarity, ultradian has been on psychiatrists' radar for decades, and good treatment options are available. Robert M. Post, MD, and colleagues first described ultradian in the 1980s.[3] Anticonvulsants like valproic acid and carbamazepine may be more effective for treatment than lithium. It is also important to reduce triggering factors like antidepressants, drugs of abuse, thyroid abnormalities, and irregular sleep schedules. There have been promising results with calcium channel blockers like nimodipine.[4]

In the episode's final scene, Lexi finally opens up about her condition to a coworker. It is a powerful moment in which she likens the cathartic experience to an elephant lifting its foot off her chest. After a trial of several medications and electroconvulsive therapy, Lexi finds a new stability. She is ready to begin a new chapter in her life.

Cheney's column and the episode both end with realistic hope: "I've finally accepted that there is no cure for the chemical imbalance in my brain, any more than there is a cure for love."[5]

Dr Sinha *is chief resident physician of psychiatry at the University of Missouri–Columbia.*

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BIPOLAR UPDATE

Comorbid PTSD: Update on the Role of Prazosin

» David N. Osser, MD

Posttraumatic stress disorder (PTSD) is often found to be a comorbidity in patients with bipolar disorder. In fact, sometimes it is the primary problem.

Irritable mood is a regular feature of PTSD. Triggers include events or thoughts related to the original trauma, which elicit an immediate adrenalized fight-or-flight response. Patients with PTSD will almost always present with sleep disturbance, including nightmares, disturbed awakenings without nightmare recollection, and night terrors observed by bed partners but not remembered.[1] Although mania can present with irritable (rather than elevated) mood during manic episodes, the irritability in mania tends to occur when others disagree with the unrealistic plans or problematic behaviors of the individual with mania. In DSM-5 mania, the patient must present with 4 rather than 3 of the additional [hypo] manic symptoms during manic episodes if the mood is irritable.

The best medication for PTSD-related sleep disturbances, and perhaps other symptoms as well, is prazosin, which is an α-1 adrenergic antagonist antihypertensive agent. There have been 9 randomized, placebo-controlled trials of prazosin for PTSD, 6 of which have reported positive results. Some of these study results were strongly positive, with effect sizes compared with placebo in the neighborhood of 1.0 for all symptoms.[2-4]

However, the largest randomized trial, which was published in 2018 and included 304 veterans from 13 medical centers, found no efficacy with prazosin.[5] Doses were raised over 5 weeks, to up to 20 mg in men and 12 mg in women (higher than previous studies for the women). Some guidelines (including the latest Veterans Affairs PTSD practice guidelines) concluded that the medication had little value. The authors and others tried to explain these negative results, noting issues such as clinicians' reluctance to refer very distressed and unstable patients to the study. If patients were receiving trazodone, they could not participate unless they were willing to stop taking it. Trazodone helps many patients with PTSD fall asleep, even if it has not demonstrated efficacy for staying asleep and preventing nightmares. Prazosin (a nonsedative), on the other hand, is not particularly helpful for initial insomnia. Prazosin had also been prescribed in study hospitals for many years, and perhaps the best patient candidates had already been treated.

Prazosin appears to be effective and perhaps the best medication for selected patients.

This study made it clear that there are many patients who do not respond to prazosin and that research is needed to determine whether there are predictors of response.

Already we know that high blood pressure, which is a common medical comorbidity in PTSD, is a predictor.[6] Raskind has termed these patients the "adrenergic subtype" of PTSD. In their 2013 study,[3] which reported positive results overall, the authors found that patients with a baseline systolic blood pressure of 110 mm Hg or less did not respond to prazosin better than to placebo.[6] Benefits rose sharply with each increase of baseline systolic blood pressure of 10 mm Hg.

Another predictor of poor response could be active drinking in patients who have an alcohol use disorder (AUD) and are actively drinking. Results of a study in veterans (N = 96) with comorbid AUD who were actively drinking during treatment with prazosin showed no efficacy for sleep or other PTSD symptoms. In another negative study, veterans (N= 20) with nightmares and mild to moderate suicidal ideation were given prazosin at night.[7] Nightmares improved more with placebo than with prazosin, and there was no difference in suicidal ideation or daytime PTSD symptoms. Thus, it may be that suicidal ideation predicts poor response; a larger study is needed to better understand this link. Notably, among the 3 trials reporting negative results for prazosin, the only positive finding for prazosin was a lower rate of suicidal ideation in the prazosin group (8%) compared with placebo (15%) in the large 2018 study.[5] However, this was a secondary outcome measure.

In an 8-week study comparing prazosin, hydroxyzine, and placebo in 100 patients with nightmares associated with PTSD (28% women), investigators found prazosin was superior to both hydroxyzine and placebo in reducing nightmares and improving other measures of sleep quality.[8] Hydroxyzine was also more effective than placebo on these measures in this study, which is the only controlled study of hydroxyzine in PTSD to date.

In conclusion, prazosin appears to be effective and perhaps the best medication for properly selected patients with PTSD, especially for their sleep disturbances. It might also address daytime symptoms, including irritability. Prazosin generally does not interact with medications for bipolar disorder. It is not particularly sedating, so another medication is often needed to address initial insomnia. Hydroxyzine and trazodone are good options.[1,8] Clinicians should be aware that there is a rare risk of priapism with prazosin, so, theoretically, there may be a greater than usual risk when combining trazodone and prazosin. Patients should be warned to pay attention to this possible side effect.

The effective doses of prazosin (after slow titration over several weeks) in the studies supporting its use clustered around a mean of 15 mg at bedtime for men and about half that for women. However, patient sensitivity to the medication is highly variable, with some patients only needing 1 mg and some needing and tolerating more than 20 mg.[1] The highest dose mentioned in the literature was 45 mg at bedtime in a case report.[9]

Dr Osser *is associate professor of psychiatry, Harvard Medical School, and colead psychiatrist at the US Department of Veterans Affairs, National Telemental Health Center, Bipolar Disorders Telehealth Program, Brockton, Massachusetts. He also serves as a member of the Editorial Board of* Psychiatric Times™. *Dr Osser has no financial disclosures regarding this article.*

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JOURNAL CLUB

Exploring the Link Between Neuroticism-Depression and College Drinking

» Cornel N. Stanciu, MD, MRO

Binge drinking is defined as consumption of 5 or more standard drinks on 1 occasion for males, or 4 or more for females, bringing blood alcohol concentration to 0.08 grams of alcohol per deciliter or higher.[1] These drinking patterns lead to serious health and safety risks, including death from unintentional injuries such as motor vehicle crashes,[2] sexual assault,[3] suicide attempts as well as other mental health issues, legal charges, and, over the long term, damage to the liver and other organs.

Perhaps not surprisingly, national surveys have found that half of full-time college students aged 18 to 22 years consumed alcohol in the previous month, and one-third engaged in binge drinking.[4] In addition to the previously noted negative impacts, academic performance is also compromised, with 1 in 4 students endorsing academic difficulties (ie, missing class or falling behind on assignments) due to alcohol consumption.[5] Those who binge drink are more likely to perform poorly on tests and projects compared with those who drink but do not binge (40% vs 7%) and are 5 times more likely to miss a class.[6] Although not all individuals who drink develop an addiction, consumption and especially binge drinking patterns are often preludes to an addiction, with approximately 9% of college students meeting criteria for alcohol use disorder.[7] Lack of screening may also underestimate the magnitude of the problem.[8]

The first few weeks of freshman year are often a period of heavy drinking and alcohol-related consequences. Social pressures and expectations during new-found independence, widespread availability and access to alcohol, unstructured schedules with mounting academic pressure, and lack of parental interactions all play a role. Alongside these stressors, many students have preexisting personality traits that may account for the use and misuse of alcohol during college.

Neuroticism, 1 of the 5 higher order personality traits, is defined by high emotional instability, depressed mood, low frustration tolerance, and anxiety. It also has been found to positively predict alcohol consumption (social intake within recommended parameters)[9-11] and alcohol use (intake beyond recommended parameters that can lead to addiction).[12] Only 1 previous study of 200 college students evaluated the implications of personality types; that study found high neuroticism and low conscientiousness predicted more alcohol use and related problems.[13]

Martin and colleagues[14] aimed to better understand the role of personality and neuroticism in college alcohol use/misuse among freshman, above and beyond the reported levels of stress. The starting hypothesis revolved around the notion that negative affect faces of neuroticism, and primarily depression, are more strongly associated with alcohol use and misuse than stress when accounting for other personality domains.

Structured Investigation

Martin and colleagues[14] conducted a cross-sectional outpatient study, which was approved by the Institutional Review Board. Survey data was collected from participants during the first 8 weeks of their first college semester. Participants included 211 female and 90 male matriculating college freshmen with an average age of 18.58 years (SD=0.39) from 2 campuses of a private university in the southeastern United States, spanning both urban and rural areas. Students were recruited via fliers posted on campus and during frequent in-person undergraduate events.

Data was acquired via online surveys of behavioral, health questionnaires, and cognitive assessments. Most surveys were completed within 3 weeks of the study initiation, and participants received a $15 gift card for completion. The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and the Alcohol Use Disorders Identification Test (AUDIT) were used to assess alcohol use and misuse (**Table**).

Endorsement of use 1 or more times on the ASSIST prompted the administration of the AUDIT, a 10-item questionnaire with a maximum score of 40 for which the higher scores indicate more severe and hazardous, harmful, excessive alcohol use/misuse. Stress was assessed using the Perceived Stress Scale (PSS), a 14-item self-reported measure of stress with each stress symptom scored on a 4-point Likert scale, where 0 = never and 4 = very often (maximum score of 56). Personality was assessed using the 44-item version of the Big Five Inventory (BFI), which measures 5 dimensions of personality (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism).

Ten facet traits were also calculated to assess

Table. Assessment Tools and Measures

Screening test/scale	Acronym/definition	Explanation of item
Alcohol, Smoking and Substance Involvement Screening Test	ASSIST	An 8-item questionnaire assessing an individual's frequency of substance use, consequences of use, and failure to stop or reduce use.
Alcohol Use Disorders Identification Test	AUDIT	10-item screening tool to assess excessive drinking and the potential for development of an addiction
Perceived Stress Scale	PSS	Psychological instrument used to measure the individual's perception of stress
Big Five Inventory	BFI	A 44-item inventory used to measure and categorize individuals on 5 dimensions of their personality
Openness to Experience	BFI personality dimension	BFI domain encompassing the following facets: fantasy, aesthetics, feelings, actions, ideas, values
Conscientiousness	BFI personality dimension	BFI domain encompassing the following facets: competence, order, dutifulness, achievement-striving, self-discipline, deliberation
Extraversion	BFI personality dimension	BFI domain encompassing the following facets: warms/gregariousness, assertiveness, activity, excitement seeking, positive emotions
Agreeableness	BFI personality dimension	BFI domain encompassing the following facets: trust, straightforwardness, altruism, compliance, modesty, tender-mindedness
Neuroticism	BFI personality dimension	BFI domain encompassing the following facets: anxiety, depression, angry/hostility, self-consciousness, impulsivity, vulnerability

more specific personality characterization within the 5 domains: openness, aesthetics, and ideas; conscientiousness, order, and self-discipline; extraversion, assertiveness, and activity; agreeableness, altruism, and compliance; and neuroticism, anxiety, and depression.

Analyses controlled for campus site (rural vs urban), sex, and individual week of study enrollment (school obligations as potential stressors fluctuated between study weeks). The investigators examined partial correlations between predictions while controlling for covariates. They used multiple regression analysis to examine the conditional and joint effect of personality and stress on alcohol use and misuse.

Analyzing the Results

Of the sample, 54% (or 164 individuals) endorsed use of alcohol at least once in their lifetime. Descriptive statistics of all covariates were accounted for, and across covariates sex and week of study enrollment were only modestly associated with AUDIT scores (male gender and more weeks since college commencement somewhat associated with higher AUDIT scores); site of the campus was not. Despite this, a t-test concluded that there were no gender differences between alcohol use and misuse ($t(161) = -1.89$, $P = .06$). Among partial correlations, the participants' AUDIT scores were positively correlated with PSS scores ($r = .17$, $P = .003$) and neuroticism ($r = .31$, $P < .001$), and negatively correlated with agreeableness ($r = -.12$, $P = .031$). Stress was significantly correlated with all the personality domain scores except for openness to experience.

Regression analyses provided less biased estimates of personality and stress on AUDIT. To elucidate the relationship between neuroticism, stress, and alcohol use and misuse (given the discrepancy between the partial correlation results and the multiple regression model), the neuroticism facets were explored as outcome measures. Analyses that used the neuroticism facets (depression or anxiety) in place of the neuroticism domain found that neuroticism-depression was positively associated with higher AUDIT scores when accounting for PSS and domain-level 5 personality traits ($\beta = .23$, $P = .028$; adjusted $R^2 = .11$, $F(10, 146) = 2.90$, $P = .002$).

Exclusion of all personality traits except for neuroticism-depression did not explain more variance in AUDIT (adjusted $R^2 = .10$, $F(5, 152) = 4.56$, $P < .001$). Interaction effects found that neuroticism as a domain moderated the relationship between PSS and AUDIT ($\beta = .16$, $P = .040$; adjusted $R^2 = .12$, $F(10, 146) = 3.16$, $P = 0.001$). This interaction was found to be unique. Neuroticism-depression score moderated the relationship between PSS and AUDIT-T ($\beta = .18$, $P = .020$; adjusted $R^2 = .14$, $F(11, 145) = 3.22$, $P < .001$. At low levels of the depression facet, stress was negatively associated with alcohol use and misuse, but at high levels of the depression facet, stress was positively associated with alcohol use and misuse (**Figure**).

Discussion

This study supports the notion that neuroticism, and specifically the neuroticism-depression facet, appear to be the most robust predictors of alcohol use and misuse among incoming freshmen and could serve as useful population risk indicators. At low levels of the depression facet, stress was negatively associated with alcohol use and misuse; at high levels of the depression facet, however, stress was positively associated with alcohol use and misuse.

Investigators branched off previous studies exploring the roles of personality or stress on college drinking. They analyzed survey results data from Wave I of the MAPme Project, a longitudinal study of biobehavioral health and substance use during college. Those findings showed that personality characteristics and stress play a significant role in the severity of problematic alcohol use and misuse, but certain traits are more significantly associated with alcohol involvement than others. The neuroticism-depression facet was a better predictor of alcohol use and misuse than the neuroticism domain, and this facet accounted for unique variance even when controlling for stress and other personality facets and domains. Stress did not account for unique variance in harmful and hazardous alcohol use and misuse beyond personality traits.

Unfortunately, this study had a number of limitations. Due to issues with the sample population, the findings may not generalize to other student populations. This study was conducted using a primarily Caucasian group from a private university located in the southeast US, without ensuring varied socioeconomic statuses. Similarly, although the sample encompassed both urban and rural participants, they were located in the same part of the country. The study also included a greater proportion of women compared to men, which may have skewed the baseline starting characteristics and outcomes.

Other issues can impact the findings. For instance, there were fairly low numbers of reported alcohol use among the sample to confidently generalize findings. Compensation offered to participants may add external biases and contribute to participant selection and participation.

Psychiatric Residency Rotation

Richard Berlin, MD

—Chicago Reform School, 1979

It was the kind of place where boys marched to school
in two straight lines, and not one had heard of Madeline,

a place where phones rang when you hung them up,
and no one knew why, or cared,

a place where fathers were AWOL and mothers begged us
to save their sons, where boys never learned

oceans are saltwater, and teachers met families
only once a year because that was their contract.

It was the kind of place where a year cost as much as four
at Harvard, where a rare student graduated high school,

a place where boys denied belts wore pants hung
on hard-ons while they dreamed of high-top

Chuck Taylor sneakers and NBA stardom,
a place where Maintenance patched potholes

only when the mayor came for his annual inspection,
where shattered dorm windows let Lake Michigan's

wind pour through in winter, mosquitoes in summer,
a place where the Admin building had A/C, new carpet,

plush leather chairs, and bowls filled with chocolates,
where new Directors were fired after a crisis or two,

the next messiah hired with a new treatment "model"
staff never bothered to follow, a place where workers

smoked with the boys, bribed them with butts, and got memo'd
not to toss garbage from home into campus dumpsters,

a place where staff got arrested as often as the boys,
a few kids returning years later as counselors, their pockets

packed with street cred and love for the youth.
It was the kind of place where boys arrived on Thorazine

and cheeked their pills, where charts were as thick
as the Chicago phone book but missing histories and lab tests

required for treatment, where doctors in training
functioned like five-star generals, but needed Security

to guard them back to their cars, where boys
were just boys crying at night for their mothers,

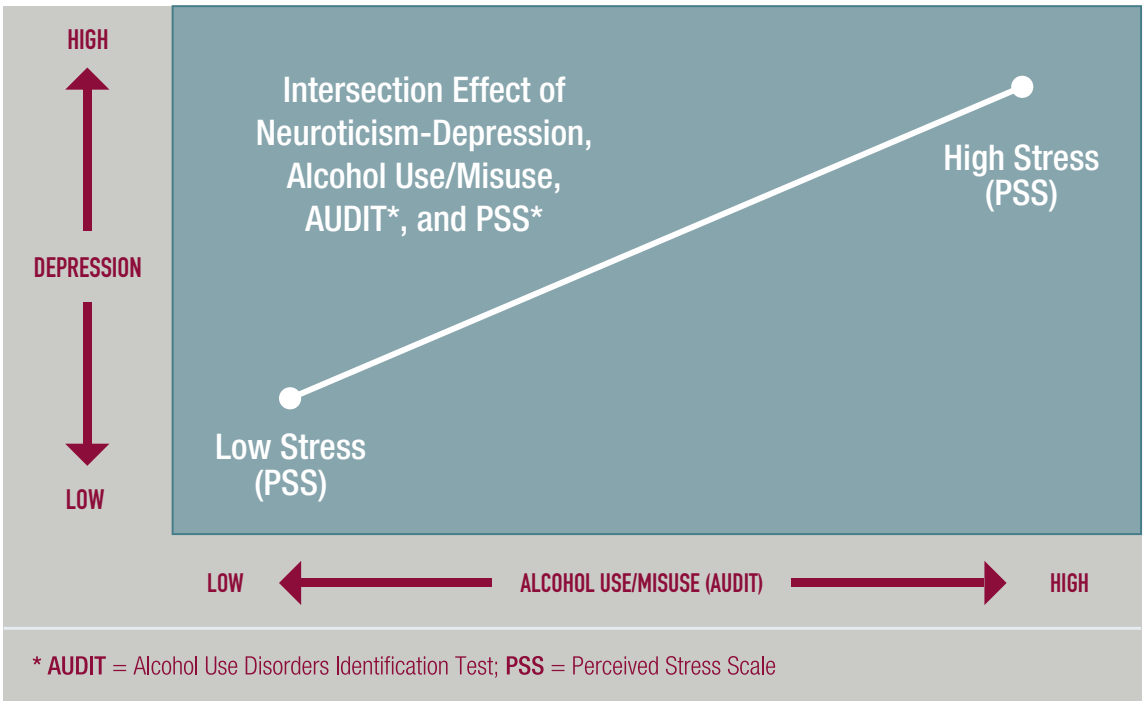
immortal when they ran over broken glass that glittered
when sun fell on the school's only playing field.

It was that kind of place.

Dr Berlin *has been writing a poem about his experience of being a doctor every month for the past 23 years in* Psychiatric Times™ *in a column called "Poetry of the Times." He is instructor in psychiatry, University of Massachusetts Medical School, Worcester, MA.* ❐

POETRY OF THE TIMES

Figure. Correlation Between Stress, Alcohol Use, and Depression



* **AUDIT** = Alcohol Use Disorders Identification Test; **PSS** = Perceived Stress Scale

The authors used a single-domain, self-reported assessment of stress, associated with increased likelihood of response bias and social desirability bias. More comprehensive and objective measures of stress levels might include physiological assessment, such as skin conductivity, heart rate, or cortisol measures that have shown be strongly associated with perceived stress.

The study employed the AUDIT-Total score, which confounds alcohol consumption and problematic alcohol use behaviors. The study participants reported low alcohol use and misuse behaviors, but the tool was not well prepared to detect unique effects of each of these constructs. Thus, future research could expand on this study by examining alcohol consumption and problems separately.

This study is limited by its cross-sectional design. To best examine the relationship between stress and personality on alcohol use and misuse, future studies could take a longitudinal state-trait perspective, treating personality and neuroticism specifically as stable traits and stress as a state.

Fortunately, data from this sample will continue to be collected until the students graduate, allowing longitudinal examinations into alcohol use and misuse trajectories, and the associations between stress, personality traits, and hazardous and harmful alcohol use.

So what does this mean for clinical practice? When presented with highly stressful circumstances, high neuroticism-depression in individuals predicts propensity to use and misuse alcohol. Similarly, people with high neuroticism-depression are likely to drink more when stressed, but low neuroticism-depression seems to be protective, with these individuals using and misusing alcohol at lower rates. Finally, the BFI domains and faces seem to have a role in alcohol use/misuse, above stress levels. These could be used as screeners for population risk indicators among incoming freshmen.

Dr Stanciu *is assistant professor of psychiatry at Dartmouth's Geisel School of Medicine and Director of Addiction Services at New Hampshire Hospital, Concord, NH. He is Addiction Section Editor for* Psychiatric Times™. *The author reports no conflicts of interest concerning the subject of this article.*

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FROM THE PAGES OF Medical Economics
SMARTER BUSINESS. BETTER PATIENT CARE.

6 Essential Facts About Cyber Security

» Todd Shryock and Logan Lutton

An analysis of data from the US Department of Health and Human Services conducted by the security firm Bitglass showed that there were 599 health care breaches that collectively affected more than 26 million people. The report resulted in 6 key findings.

Attacks are increasing each year. Since 2018, the number of hacking and IT incidents has increased. Last year, hacking was the top cause of breaches, leading to 403 and 599 breaches (67%).

Hacking is resulting in larger breaches. Hacking compromised 91.2% of all exposed health care records in 2020—24.1 million out of 26.4 million.

The cost of breaches is rising. The average cost per breached record increased from $429 in 2019 to $499 in 2020. Data breaches cost health care organizations $13.2 billion last year.

Hacking is not the only problem. The remaining breach categories—unauthorized disclosure of personal health information by internal parties or systems, loss of theft devices, and miscellaneous leaks—exposed the personal details of about 2.3 million people, exposing victims to identify theft, phishing, and other forms of cyberattacks.

Breach numbers are up everywhere. 37 of 50 states suffered more breaches in 2020 than they did in 2019. California had the most at 49, surpassing last year's leader, Texas, which suffered 43 in 2020.

Recovery is slow. In 2020, the average health care firm took 236 days to recover from a breach. ❒

Read more at: https://bit.ly/3qihDeK

Brief Summary of Prescribing Information for Drizalma Sprinkle™ (duloxetine delayed-release capsules). This Brief Summary does not include all the information needed to use Drizalma Sprinkle™ safely and effectively. See full Prescribing Information for Drizalma Sprinkle™.

WARNING: SUICIDAL THOUGHTS AND BEHAVIORS
See full prescribing information for complete boxed warning.

Increased risk of suicidal thinking and behavior in pediatric and young adult patients taking antidepressants.

Closely monitor all antidepressant-treated patients for clinical worsening and for emergence of suicidal thoughts and behaviors.

INDICATIONS AND USAGE

Drizalma Sprinkle™ (duloxetine delayed-release capsules) is a serotonin and norepinephrine reuptake inhibitor (SNRI) indicated for:

- Major Depressive Disorder (MDD) in adults
- Generalized Anxiety Disorder (GAD) in adults and pediatric patients aged 7 to 17 years old
- Diabetic Peripheral Neuropathic Pain (DPNP) in adults
- Chronic Musculoskeletal Pain in adults

CONTRAINDICATIONS

Serotonin Syndrome and MAOIs: Do not use MAOIs intended to treat psychiatric disorders with Drizalma Sprinkle™ or within 5 days of stopping treatment with Drizalma Sprinkle™. Do not use Drizalma Sprinkle™ within 14 days of stopping an MAOI intended to treat psychiatric disorders. In addition, do not start Drizalma Sprinkle™ in a patient who is being treated with linezolid or intravenous methylene blue.

DOSAGE AND ADMINISTRATION

- Drizalma Sprinkle™ can be taken with or without food. Drizalma Sprinkle™ may be swallowed whole (do not crush or chew capsule); opened and sprinkled over applesauce; or administered via nasogastric tube
- Missed doses should be taken as soon as it is remembered. Patients should not take two doses of Drizalma Sprinkle™ at the same time
- There is no evidence that doses greater than 60 mg/day confers additional benefit, while some adverse reactions were observed to be dose-dependent

WARNINGS AND PRECAUTIONS

- **Hepatotoxicity:** Hepatic failure, sometimes fatal, has been reported in patients treated with duloxetine delayed-release capsules. Duloxetine delayed-release capsules should be discontinued in patients who develop jaundice or other evidence of clinically significant liver dysfunction and should not be resumed unless another cause can be established. Drizalma Sprinkle™ should not be prescribed to patients with substantial alcohol use or evidence of chronic liver disease
- **Orthostatic Hypotension, Falls, and Syncope:** Cases have been reported with duloxetine delayed- release capsules therapy
- **Serotonin Syndrome:** Increased risk when coadministered with other serotonergic agents (eg, SSRI, SNRI, triptans), but also when taken alone. If it occurs, discontinue Drizalma Sprinkle™ and initiate supportive treatment
- **Increased Risk of Bleeding:** Duloxetine may increase the risk of bleeding events. A post-marketing study showed a higher incidence of postpartum hemorrhage in mothers taking duloxetine. Concomitant use of NSAIDs, aspirin, other antiplatelet drugs, warfarin, and anticoagulants may increase this risk
- **Severe Skin Reactions:** Severe skin reactions, including erythema multiforme and Stevens-Johnson Syndrome, can occur with duloxetine. Drizalma Sprinkle™ should be discontinued at the first appearance of blisters, peeling rash, mucosal erosions, or any other sign of hypersensitivity if no other etiology can be identified
- **Discontinuation Syndrome:** Taper dose when possible and monitor for discontinuation symptoms
- **Activation of Mania or Hypomania:** Use cautiously in patients with bipolar disorder. Cautions patients about the risk of activation of mania/hypomania
- **Angle-Closure Glaucoma:** Avoid use of antidepressants, including Drizalma Sprinkle™, in patients with untreated anatomically narrow angles
- **Seizures:** Prescribe with care in patients with a history of seizure disorder
- **Blood Pressure:** Monitor blood pressure prior to initiating treatment and periodically throughout treatment
- **Hyponatremia:** Can occur in association with SIADH. Cases of hyponatremia have been reported
- **Glucose Control in Diabetes:** In diabetic peripheral neuropathic pain patients, small increases in fasting blood glucose and HbA_{1c} have been observed

ADVERSE REACTIONS

Most common adverse reactions (≥5% and at least twice the incidence of placebo patients) nausea, dry mouth, somnolence, constipation, decreased appetite, and hyperhidrosis.

DRUG INTERACTIONS

- Potent CYP1A2 Inhibitors: Avoid concomitant use
- CYP2D6 Substrates: Consider dose reduction with concomitant use

USE IN SPECIFIC POPULATIONS

- **Hepatic Impairment:** Avoid use in patients with mild, moderate, or severe hepatic impairment
- **Renal Impairment:** Avoid use in patients with severe renal impairment
- **Pregnancy:** Third trimester use may increase risk of symptoms of poor adaptation (respiratory distress, temperature instability, feeding difficulty, hypotonia, tremor, irritability) in the neonate. Advise patients that Drizalma Sprinkle™ use during the month before delivery may lead to an increased risk for postpartum hemorrhage and may increase the risk of neonatal complications requiring prolonged hospitalization, respiratory support and tube feeding.
- **Lactation:** Advise breastfeeding women using duloxetine to monitor infants for sedation, poor feeding and poor weight gain and to seek medical care if they notice these signs.

To report SUSPECTED ADVERSE REACTIONS, contact Sun Pharmaceutical Industries, Inc. at 1-800-818-4555 or FDA at 1-800- FDA-1088 or www.fda.gov/medwatch.

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SUN PHARMA

Race, Ethnicity, and Chronic Pain

» Steven A. King, MD, MS

Most health care professionals are aware that medical care in this country varies a great deal based on the patients' race and ethnicity. We only have to look at the current coronavirus disease 2019 (COVID-19) crisis, in which Black individuals have been disproportionately affected both in number of infections and deaths as a result of a myriad of psychosocial, genetic, and environmental factors.

On top of unequal access, some individuals hold discriminatory beliefs about pain experienced by individuals of different racial and ethnic groups. In 1892, S. Weir Mitchell, MD, the father of American neurology, wrote about the experience of pain in White people of Northern European ancestry in comparison with Black and Native American people. He stated, "In our process of being civilized, we have won, I suspect, intensified capacity to suffer. The savage does not feel pain as we do."[1]

This view of pain was often used to rationalize the mistreatment of enslaved and Native American people: when violence was inflicted on them, they did not suffer as White people did. Pre-Civil War, 19th century New Orleans physician Samuel A. Cartwright, MD, said he identified "dysaesthesia Aethiopis," an inherited disorder specific to Black individuals that made them insensitive to pain.[2]

These views were perpetuated solely based on racism, without any science to support them. However, we now know that genetics can play a significant role in disease. Different races and ethnicities can be more at risk for certain diseases, such as sickle cell disease among Black people and Tay-Sachs disease among people of Ashkenazi Jewish ancestry. Thus, there is still the question of whether pain is experienced differently by individuals from different backgrounds.

A complicating factor in this discussion is how the experience of pain is affected by culture. It is readily apparent that it is more acceptable in some cultures and societies, often based on race or ethnicity, to complain about pain. How much of this is due to actual differences in the pain experience versus cultural acceptability of reporting pain—nature versus nurture—remains unclear.

A recent literature review examined the effects of race and ethnicity on the care individuals received for chronic pain.[3] The review identified trends in the effects of race and ethnicity on the experience of pain and how it is treated. Among the multitude of previous studies, one can find many different results, ranging from race and ethnicity playing significant roles to playing virtually no role.

There is still the question of whether pain is experienced differently by individuals from different backgrounds.

Some studies have reported that Black individuals and people who belong to certain ethnic minority groups have higher pain thresholds, while other studies have reported that they are more sensitive to pain.[4-6] Minority patients, especially those from groups in which there are relatively small numbers of represented physicians, may have their level of pain underestimated by their caregivers.

Several studies have examined affects of race or ethnicity on the prescribing of opioids for pain. The most common finding was that Black patients were less likely to be prescribed opioids than White patients; however, it is worth noting that Hispanic patients were less likely to receive opioids than non-Hispanic White or non-Hispanic Black patients.[7,8] Furthermore, some studies found that Black patients who were prescribed opioids were monitored more closely for misuse than White patients.[9]

In light of the prescription epidemic in this country, resulting in rising rates of misuse and overdoses, it could be argued that more restrictive prescribing and closer monitoring might be a positive thing. If so, Black patients might accidentally benefit from these prescribing patterns. However, there is no indication that physicians are more carefully looking out for their Black patients than for their White patients. Even if the result is positive, there is no apparent intent. Furthermore, research has shown that Black patients and non-White Hispanic patients may have a more difficult time than White patients filling opioid prescriptions, as pharmacies in their neighborhoods may carry smaller supplies of these medications.[10]

Unfortunately, there has been a tendency to have limited participation of non-English speakers and immigrants in studies of Hispanic patients, and this may have resulted in an unrepresentative sample. Considering that pain is a subjective complaint that must be self-reported, limited language skills could impair patients' ability to convey the presence and severity of pain, all important factors in determining proper treatment protocols.

The extent to which race, socioeconomic status, and access to medical care contribute to the apparent discrepancies in the management of pain remains unclear. The issue of poor access to health care may extend beyond just the pain itself and may also affect the identification and treatment of underlying disorders that may be causing or exacerbating the pain. This includes mental health issues, most notably depressive and anxiety disorders, which can play important roles in the development and maintenance of chronic pain.

It is not too surprising that so many factors may explain variances in pain among different racial and ethnic groups. We know that there are many elements involved in the development of pain, especially chronic pain, including genetic, cultural, psychological, and environmental influences. The importance of each factor can vary from individual to individual.

The authors of the current study noted that there are no easy answers to pain management discrepancies, especially between Black and White individuals in the United States. More research is needed to identify the reasons for these discrepancies and the best methods for addressing them. Physicians should be aware of biases, including unconscious ones, and the methods for assessing and managing pain, especially among patients who may belong to different racial and ethnic groups than they do. Viewing all patients as complex individuals whose pain may involve many factors is crucial.

Dr King *is in private practice in Philadelphia, Pennsylvania.*

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CONVERSATIONS IN CRITICAL PSYCHIATRY

Phenomenology, Power, Polarization, and Psychosis

» Awais Aftab, MD

Nev Jones, PhD, is an assistant professor in the Department of Psychiatry at the Morsani College of Medicine, University of South Florida, and a faculty affiliate of the Louis de la Parte Florida Mental Health Institute. An applied mental health services researcher, her expertise includes the social and cultural determinants of pathways to and through care, early intervention in psychosis, multi-stakeholder perspectives on mental health services, and the relationship between poverty, education/employment and longer-term outcomes. She is currently a primary investigator (site PI) on grants funded by the Patient Centered Outcomes Research Institute (PCORI), National Institute of Disability, Independent Living and Rehabilitation Research (NIDILRR), and the National Institute of Mental Health (NIMH).

Although I had known about Jones for some time and had interacted with her on social media, I remember the exact moment when I found myself in complete awe of her. It was when I read David Dobb's article "The Touch of Madness," a profile on her life and career.[1] It remains one of the most remarkable and thought-provoking profiles I have read as a psychiatrist. The article describes her experiences of psychosis as a doctoral student in philosophy, the ways in which her social circle reacted, her encounters with the mental health system, the derailment of her career as an aspiring philosopher, and the beginning of her career as a brilliant psychologist, who has used insights from her own lived experience to shed light on the ways in which our current practices are failing those who need our help the most.

AFTAB: Without repeating your life story, which can be gleaned in the Dobb's article, how has your own experience with schizophrenia spectrum psychosis shaped your understanding of what psychosis is and of the role played by culture and stigma in shaping this experience and the outcomes?

JONES: I tend to situate my views on experience within the standpoint theory literature, ie, that knowledge, in general, is socially situated, and that individual and collective identities and experiences shape (but, of course, do not simplistically determine) one's understanding of the world, self, and others, and one's particular attunement to relations of power (what speakers and what conclusions one finds to be credible). All of us, of course, have our own sets of experiences and identities—some socially or structurally imposed and others that we explicitly take on.

When it comes to psychosis specifically—both the experience itself and the clinical relationships in which one then finds oneself—a few things really stand out for me. One is a deep realization of (and then attunement to) the complexities of the experiences that fall under the psychosis umbrella—the many and variable forms they take, certainly, but above all, their liminality. By liminality I mean that, for many of us, language quickly breaks down, as do the psychological constructs and categories on which we tend to rely. Although it could also be the case that the experience of psychosis really only exposes limits and fissures that are already there, but masked.

I feel like there was an enormous disconnect between my experiences and the more mainstream conceptualization of psychosis, as well as key symptom categories of hallucinations, delusions, passivity phenomena, and alogia. Not just because the assumed distinctions between delusion/belief and hallucination/sensation, or between thought and the spoken word easily dissolve in actual experience. But also because of the ambiguous, indeterminate role of agency, our own agency, as we struggle to apprehend these limits. More on that later.

The second key issue for me is power. Power both in the sense of force (physical and legal) as well as relational power as it circulates between individuals. We all deal with, and are constantly immersed in, relations of power, but as a patient navigating psychosis, we tend to experience this in particularly deep, generally subjugating, ways, eg, through very strong forms of social rejection and exclusion, fear, misrecognition, assumed impairment, and disability. Then, at a more macro level, invisibility and devaluation when it comes to thinking about social justice, socioeconomic reform, and so on. If anything, I have experienced this in a much more attenuated way than so many other individuals I know, or with whom I have subsequently met or worked. As an interviewee in a study put it, we're "throw-away people."

So that is at least a start. Both these areas—phenomenology and then power—are pretty clearly at the heart of my research.

AFTAB: Starting with psychopathology, can you say more about your perspective[2] on the unacknowledged complexities of psychosis and schizophrenia?

JONES: I should start by emphasizing that *psychosis* is, of course, an umbrella term that includes an absolutely huge array of different alterations of experience, or alterations of patterns of experience. Yet we, and psychiatry and the allied psysciences, by and large do not engage with this breadth, depth, and variety at all. Philosophers of psychiatry love to refer to a 2006 article by Nancy Andreasen, MD, PhD, juicily titled "DSM and the Death of Phenomenology in America." I think it is actually worth quoting her analysis directly. One of the major problems she identifies is a very fundamental misunderstanding of what the DSM does, namely that[3]:

> ***The criteria include only some characteristic symptoms of a given disorder. They were never intended to provide a comprehensive description. Rather, they were conceived of as "gatekeepers"—the minimum symptoms needed to make a diagnosis. Because DSM is often used as a primary textbook or the major diagnostic resource in many clinical and research settings, students typically do not know about other potentially important or interesting signs and symptoms that are not included in DSM.***

I would word this more strongly. Most clinicians with whom I have trained, interviewed, or otherwise interacted have very explicitly been trained to view DSM symptom lists as comprehensive. A few indicators have, in essence, become the thing itself in working clinicians' minds. The consequences of this, only some of which Andreasen herself describes, cannot be overstated. Misunderstanding, misrecognizing, reducing, and over-simplifying psychosis can and does impact everything from translational neuroimaging (dependent on the use of standardized measures) and new drug development, to clinical conceptualization and the capacity of clinicians to engage more deeply with clients. Clients who feel profoundly misunderstood may never open up in therapy or consultations.

AFTAB: You have done some fascinating work on the phenomenology of psychosis. For instance, on the nature of auditory hallucinations,[4] on the role of

agency and interpretation,[5] and sexuality[6] in the phenomenology of psychosis. What are some of main findings and conclusions of this body of research?

JONES: After a very difficult period, I got into grad school (in psychology), started doing research, and also facilitated Hearing Voices Groups. (I suppose I should really stress that had you told the Nev of, say 2007, that she would be become a professor of psychiatry, she would have told you that you were completely out of your mind). As a patient earlier on, I think it is fair to say that I honestly was never very sure that I was experiencing psychosis/schizophrenia, precisely because it seemed to diverge so profoundly from the standard SCID questions, for example. At least as I heard and understood them. But then, once I started to interact with other people, and not just a random few, but a lot of individuals, through research, peer support and facilitation, and eventually training and outreach, I began to realize "this is not just me at all."

In fact, at multiple points, I felt heartbroken hearing other individuals' stories and the extent to which they felt they could not open up, how they never even tried to describe so much of their experience to clinicians, or how they had long ago given up trying. Many were folks who had been in the public mental health system for decades. They had worked with dozens and dozens of different clinicians and social workers. The areas of misunderstanding or silencing or invisibilization took different forms. I listened to this, which really is what informed my initial research.

Just as one example, I briefly mentioned the Hearing Voices Groups at a large service user gathering. An older woman raised her hand and asked if I could talk to her after the meeting.

"You said voices group," she said, "can you say what you mean by that?"

"Well," I responded, "they take a huge variety of forms and *voices* is itself maybe not the greatest term. Some individuals literally hear a voice; for others it is more quasi-auditory; for others it may even be a color with words jumbled in it. For instance, one of the members of my group refers to a group of her voices as a 'wall of color' that comes at her. Does this help?" I asked.

At that point, she literally broke down crying and then proceeded to talk about the decades she spent thinking that, in spite of a diagnosis of schizophrenia, she did not really hear voices, she did not know what to call them, and that something was wrong with her because even her schizophrenia was not real.

These experiences, as well as my own, inspired me and galvanized me to try to elevate these experiences and their complexities. So that is what I did—a series of qualitative publications on the aspects of psychosis and schizophrenia that I felt had been extremely neglected, dismissed, and devalued.

AFTAB: Looking at your publication history, it seems like you then moved away from phenomenology and, for the past 5 or 6 years, have mostly published research on mental health services. Would you say that these more recent studies and publications have more to do with what you referred to as *relations of power*?

JONES: Yes, precisely. I think I felt very strongly that I needed to do what I could to, as I say, complicate extant understandings of psychosis. Having tried my best to do that, I wanted to tackle the more macro issues of power, engagement, and outcomes in services. And, beyond that work designed to deepen our understanding of ways in which structures and institutions (eg, welfare policy, income inequality, structural racism, and xenophobia), shape psychiatric discourse and the trajectories of those who end up in this space, especially those on the severe end of the spectrum.

I would add that, as strange as it might sound, I see psychiatry and the mental health system as victims of (or at least profoundly constrained by) broader policy. Socioeconomics are much more central in my mind. Not just in the sense that structural disadvantages are profoundly implicated in the epidemiology of serious mental illness (SMI) but also in the sense that what individuals are and what they can do with their lives is tied to socioeconomic capital, income (in)security, and the central roles of work and productivity in the context of socially valued roles. From the perspective of social justice, it is important to not just try to address problems at the level of psychopathology but also address the extra-individual ways in which macro-level systems shape individuals' lives and do so in ways that are anything but just and equal in the case of individuals with SMI. So, a lot of my more recent work has focused on the ways in which deeper structural disadvantage, poverty, the American benefits system, and so on, influence what options are available, what services look like, and how lives unfold over the longer term.

From the perspective of social justice, it is important to not just try to address problems at the level of psychopathology but also address the extra-individual ways in which macro-level systems shape people's lives.

AFTAB: The inclusion of consumer/survivor/ex-patient (c/s/x) perspectives in academic discourse in psychiatry has historically been a very neglected area. What are some of the consequences and implications of this absence? I am interested in the way this exclusion has affected psychiatry but also how it has affected those who have been excluded. It is common for me to encounter service users on Twitter who had unfavorable and negative experiences with psychiatric care (many of whom felt their voices were not heard), and as a result there is a lot of anger, pain, and frustration, sometimes to a point that individuals have lost all trust in the medical system.

JONES: And this is true across many different systems—criminal justice, child welfare, income-based social services, disability. At the broadest level, the problem is really the problem of social hierarchies, hierarchies of marginalization and exclusion, and, in some cases, incarceration and harm. Historically, there have been forced sterilizations as well as decades-long and sometimes life-long periods of (involuntary) commitment to asylums or state hospitals. There is collective pain, and also individual pain, distrust, and anger. The tragedy is that we have never seen the kind of dialogues and collaboration that this history demands. That is, there seems to me so much potential for deep listening and systemic rethinking or redesign work. Where policy is the real barrier, we need collaboration to change policy. That this has not happened only further undermines trust in the system and seeds ideological polarization. Since I am active both in user/survivor activist spaces as well as academic groups and lists, I often feel particularly painfully aware of the almost endless opportunities for dialogue, and the huge contribution that service users could make, but also the lack of meaningful opportunities to do so.

AFTAB: Dobbs wrote in his article: "In the United States, the culture's initial reaction to a person's first psychotic episode, embedded most officially in a medical system that sees psychosis and schizophrenia as essentially biological, tends to cut the person off instantly from friends, social networks, work, and their sense of identity."[1]

This is something I have observed in the context of inpatient psychiatric hospitalizations for first episode psychosis. Psychiatric hospitalization is often a practical necessity since we as a society have failed to invest in other methods of psychiatric crisis management. However, I do recognize that it can be incredibly traumatic for some individuals on the one hand, while being therapeutic for others.

Psychiatric hospitals prioritize patient safety over comfort and autonomy, but an extreme emphasis on safety can sometimes be misplaced. The idea that we are fulfilling our duty to patients by offering them medications in a locked-door setting with bare-bones amenities reminds me of our attitudes toward children in the preattachment theory era when the consequences of maternal deprivation were seen as unimportant as long as the infant received physical care. Future generations may see our psychiatric hospitalization practices with a similar mix of curiosity and horror. What are your thoughts on this?

JONES: Involuntary hospitalization is something I have only recently started to study, although, as you say, it is an almost ubiquitous facet of path-

ways to and through early care for youth and young adults with first episode psychosis. A few years ago, I was awarded an internal grant to investigate the impact of involuntary hospitalization on youth across the diagnostic spectrum. We now have our first papers under review from the qualitative arm of this project. Overwhelmingly, within this sample, participants described inpatient environments as cold, dehumanizing, and punitive (with clearly negative impacts on participants' reported willingness to trust future providers or disclose suicidal thoughts).

Perusing this data, I found the description of involuntary hospitalization as a kind of "punishment" most striking and most thought-provoking. Increasingly, the questions I have been asking myself, in part inspired by the legal socialization literature in criminology, concern the extent and ways in which these experiential entanglements of force and treatment, as well as perceived moralization in the paradoxical context of otherwise biomedicalized care, shape the development of system-related values, attitudes, and moral reasoning. I say paradoxical because one of the primary underlying motivations for physical health analogies has often been the putative mitigation of moral blame or culpability; and yet at the intersection of involuntary treatment and mental health, moral blame/moral discourse seemingly creeps right back in.

Of course, the existence and structuring of the average inpatient facility absolutely reflects the positionality and status of mental health challenges and crises in the United States. It is thus a kind of societal indictment. I also feel like this is pretty widely agreed upon. Few direct care clinicians I know are under any illusion about the therapeutic capacities of standard state- or county-funded inpatient facilities.

AFTAB: What do you think of the early intervention in psychosis (EIP) services as they currently exist?

JONES: If we compare average to good early intervention in psychosis services to status quo care, the difference is stark. Meaning that so much of the time, under care as usual, young people will only have access to medication management and maybe, if they are lucky, some access to a therapist with at least minimal training in psychosis. EIP services have also really helped to elevate the relative clinical standing of what, for decades in the United States, has been an incredibly neglected sub-group. That is not to say services are perfect, nor that implementation has not been uneven; some states, like New York, have massively invested in training, technical assistance, and support, whereas other states have under-funded EIP programs, with little or no support. I do research on early psychosis around the country, and this really manifests in interviews with young people from well-supported, high quality services versus under-resourced, bare bones EIP services.

I would say that the real elephant in the room is what comes after early intervention—assuming there is access to well-implemented programs. What are young people with ongoing psychosis supposed to do following discharge? This is where the broader issue of how society, including employers and institutions of higher education, views psychosis and schizophrenia also rears its head. Even under the best of circumstances, clinical interventions can only go so far if societal structures and institutions do not accept (and ideally) embrace members of the broader community with disabilities and mental differences. Some of my teacher assistant's work has tried to move in this direction. For example, with funding from the Substance Abuse and Mental Health Services Administration I developed 2 toolkits on supporting students with early psychosis in higher education. But we clearly have a long way to go.

AFTAB: The role played by socioeconomic determinants—poverty, racial discrimination, stigmatization, domestic abuse, lack of education, unemployment, etc—in influencing the risk and course of schizophrenia has received relatively scarce research attention, although things are beginning to change. While a biogenetic conceptualization of schizophrenia has certainly downplayed social and structural factors with regards to poor outcomes, what is interesting is that some of the critical discourse has also shown a neglect of social and structural factors, and has instead been focused on trying to tie the poor outcomes to the use of antipsychotic medications. What do you make of this situation?

"Even under the best of circumstances, clinical interventions can only go so far if societal structures and institutions do not accept (and ideally) embrace members of the broader community with disabilities and mental differences."

JONES: As I see it, there have always been threads within the broader user/survivor movement that have focused on medications and treatment as central targets to the neglect of underlying structural determinants. This line of inquiry has consumed so much oxygen that it has ended up contributing to a neglect of structural determinants. I regularly talk to individuals who, for example, bring up the patently false claim that chronic psychosis would not exist were it not for antipsychotics. Ergo, this logic goes, all we have to do is remove medications from the equation, and we would massively reduce disability, chronicity, and so on. Similar logic seems to operate for Open Dialogue—the belief, that is, that if we simply withhold or massively reduce antipsychotics early in the disease, chronic psychosis will never develop.

What do I make of this all? It is frustrating in a whole lot of ways. The overwhelming focus on medications (or interventions like Soteria associated with the minimization of medication use) ends up providing an almost perfect alibi for the kinds of conservative social welfare and benefits policies in place in the United States since the mid-1990s. Ultimately, what we are not doing is coming together, across identity and coalitional lines, to think deeply and creatively about the vast array of crisscrossing structural determinants, including income inequality, urban living conditions, limited class mobility, structural racism, and health care financing. Those are, from my perspective, the really major players.

AFTAB: Popular discourse on psychiatry, especially on online platforms and social media, is characterized by an extreme polarization. What do you think are some of the driving forces of this polarization? Why should we be worried about it, and what can be done?

JONES: I often think that if we knew each other as human beings rather than as caricatured identity groups (whether service users, activists, or psychiatrists) we would, or could, actually find a lot of common ground—build common ground, that is. Also, through dialogue, everyone learns to think more deeply, and with more nuance, about the issues at hand.

Another contributor, as I mentioned previously, are the individuals with various ideological axes to grind, a phenomenon we find on both ends of the ideological spectrum. These polarizing figures almost invariably seem to have little to no investment in recentering the views of those on the receiving end of public sector services, who, especially when it comes to schizophrenia and psychosis, are disproportionately poor, Black, and subject to myriad forms of disadvantage.

When I was a graduate student in Chicago, doing research in several of the city's more notorious service ghettoes, I can tell you that the individuals I spoke to, interviewed, worked with for various projects, were not putting "decreased medication prescribing" on top of their priority list. It was housing, basic income, and access to food. I remember going on a home visit with an assertive community treatment team to accompany a young pregnant soon-to-be-mother to the grocery story. I remember feeling heartbroken that, 5 months before her baby was due, she was trying to build up a supply of diapers so that she would have enough when the baby was actually born. When push comes to shove, there is not even the slightest doubt in my mind that addressing these kinds of social conditions is the real priority when it comes to justice, as exemplified by the incredible poverty this young woman was experiencing and the underlying social disinvestment in individuals with significant psychiatric disabilities it represents.

AFTAB: I would like to talk about the polarized state of online discourse on antipsychotics a little bit more. On one hand, we see folks insisting that everything is hunky-dory, and the very notion that

the long-term use of antipsychotic medications could worsen functional outcomes even in some individuals is summarily dismissed. On the other hand, we see a sort of fanatic conviction that antipsychotics are toxic medications, that they in fact make schizophrenia worse, and the best thing we can do is to taper individuals off these medications.

What is clear is that individuals have very different experiences with these medications. For some, these medications can be incredibly therapeutic, offering relief and functional restoration, but for others, these medications may not do much or may cause harm.

Based on my understanding of the literature, the notion that there is a subset of individuals in whom long-term use may worsen outcomes strikes me as a plausible hypothesis, albeit one that needs to be confirmed by future research in the form of randomized controlled trials. What is clear is that individuals have very different experiences with these medications. For some, these medications can be incredibly therapeutic, offering relief and functional restoration, but for others, these medications may not do much or may cause harm. What is your take on this issue, and what are some of the pitfalls?

JONES: I completely agree with you. I remember sitting in on a panel presentation with Lex Wunderink, MD, PhD, back in 2015 or so. (Wunderink has looked at long-term recovery rates in individuals with first-episode psychosis with antipsychotic dose reduction/discontinuation).[7] After the presentation, a very senior and influential schizophrenia researcher in the United States described Wunderink's work as extremely important. He made basically the same points you do above but concluded that the big challenge is that we just do not know (and cannot currently identify) these sub-groups (individuals who will benefit vs those who will not, as well as in what ways and over what stretch of time). Obviously, this is not very helpful for either clients (or clinicians or family) stuck making decisions about medications in the here and now.

Also, in general, I think individuals tend to find areas of high uncertainty in any medical context highly stressful and discomforting. What I do think we need is true information and decision aids, ie, resources that lay out where the status of research literature is, resources that are transparent about the myriad unanswered questions we have and do not attempt to spin or sugar coat any of it. (I can honestly say I have never seen anything that I think actually does this—none of the medication-related shared decision-making tools or resources).

AFTAB: As a psychiatric researcher and as someone with lived experience, you are a success story of service-user involvement in mental health research. What are the challenges you have experienced in navigating this dual role, especially with regards to simultaneously existing in the vastly different cultures of the psychiatric research community and the c/s/x community? How hard is it to do interdisciplinary work in an environment driven almost entirely by National Institutes of Health (NIH) grants?

JONES: Honestly, I will not consider myself successful, at least by the standards of the academy, until I have an R01 Notice of Award in hand. Otherwise, it is very challenging and quite painful a lot of the time—cognitive dissonance, code-switching. Back in 2017, the Alternatives conference, that big national gathering of user/survivor activists, happened to coincide in both time and place with the NIMH services conference. One of the days, I co-led a workshop on service user research involvement and priorities at Alternatives in the morning and presented at the NIMH venue in the afternoon. When I mentioned this to a handful of individuals at the latter, they had no idea the former was happening. I did not run into a single other university-based researcher at Alternatives. This is a kind of the structural example of what I see a lot—the opportunities to come together, but simultaneously the degree of separation, the lack of awareness. For me, these are the challenges of always feeling, uncomfortably, caught between 2 worlds.

Right now, a group of colleagues and I have a commentary[8] on ways in which the field (administrators, senior PIs, funders) could better support a pipeline of mental health services— students, trainees, and researchers with experience of significant psychiatric disabilities and intersecting experiences of disadvantage. I would love for the research community to engage with, and dialogue about, the problems we call out and suggestions we raise there.

AFTAB: How can psychiatry and psychology trainees acquire a better appreciation of the c/s/x perspectives? Is there any literature that you would like to recommend?

JONES: A big part of me wants to completely sidestep this question because while there are many powerful first-person accounts and narratives out there, I think that what is really needed is not more reading but direct engagement, dialogue, and conversation. Clinicians, as well as virtually all translational, clinical, and services researchers talk to service users all the time. However, this talk generally takes place in the form of the unidirectional provision of expert therapy or management. Instead, diverse service users need to be invited to the table as epistemic agents and interlocutors, rather than informants. All of us have to allow ourselves to be moved, emotionally as well as intellectually, in the course of this dialogue. We also need relationships, not one-off conversations, and relationships that can grow and evolve over time.

For anyone who does not know where to start, I am happy to make introductions, suggest listservs and forums where clinicians and researchers without existing relationships could start to make them. (My Twitter handle @viscidula.)

AFTAB: Thank you!

Conversations in Critical Psychiatry *is an interview series aimed to engage prominent critics within and outside the profession who have made meaningful criticisms of psychiatry and have offered constructive alternative perspectives to the current status quo. The opinions expressed in the interviews are those of the participants and do not necessarily reflect the opinions of* Psychiatric Times™.

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COMMENTARY

Can Psychiatry Sustain Connections While Hosting Sustainable Conferences?

» Jeremy D. Wortzel, MPhil, Joshua R. Wortzel, MD, MPhil, and Elizabeth Haase, MD, and GAP Climate Committee

As we prepare for the second online annual meeting of the American Psychiatric Association, it is a safe bet that few of us are thinking how wonderful it is to stay at home. While online conferences have much to offer, many of us miss the collegial interactions and invigorating break from office routine.

At the same time, we have become accustomed to the efficiency of online meetings—the decreased time and cost of travel, the comforts of controlling what others see and do not see, and the chance to spend more time with family. The environmental benefits of online meetings are also enormous. Large conferences can produce the carbon dioxide equivalent (CO_2e) emissions of an entire city in a single week.[1] In our recent *JAMA Network Open* study on the carbon footprint of APA meetings, we found that by holding its 2020 Philadelphia meeting online, the APA saved roughly 20,000 metric tons CO_2e emissions—the equivalent of burning 22 million pounds of coal or 500 acres of dense forest.[2]

Psychiatrists increasingly appreciate the costs of this carbon. Climate change affects mental health in a myriad of ways, through temperature changes that impact pharmaceutical safety and neurophysiology,[3] existential stressors and eco-anxiety in a whole generation of young individuals, and climate-related traumas from forest fires to coastal flooding.[4] Some of us are also aware of the degree to which we, the health care system, are the problem. American health care generates more greenhouse gases than many countries, and it impacts more than 400,000 disability-adjusted life-years annually.[5] The APA has wisely recognized climate change as a top priority,[6] and our response must be to reduce our carbon emissions—as well as respond to the damage they cause—bringing our practice in line with international goals for sustainability.

But sustainability is more than just cutting carbon emissions. Sustainability means creating a system where all of us can thrive—plants, animals, humans, and planet. This requires adequate financial resources, social justice, and social connectivity, while also decreasing the destruction of our planetary home. As we prepare for this second online meeting, it is an opportunity to reflect: Where can psychiatry become more sustainable? What can online meetings accomplish? What parts of in-person contact are important to retain, and how?

> American health care generates more greenhouse gases than many countries.

During our panel discussion, "The Carbon Footprint of Cancelling the APA, a Virtual Match, and More: Impacts of Psychiatric Activity on Global Warming and How to Respond," we will explore these issues, presenting research on the carbon footprint of residency interview travel by Daniel Brooks Bernstein and our research on the APA's carbon footprint. We found that the carbon footprint of APA meetings may vary 3-fold by location in the United States, with northeastern locations optimally minimizing the aggregate carbon footprint. We also analyzed how the APA's carbon footprint would change with different kinds of meetings—regional, online, and so on. For example, we have found that regional meetings could cut carbon emissions by 24% to 53%, and as much as 85% to 86% if nonregional attendees participated online.

Bernstein, a Stanford medical student, found that each of his classmates generated an average of 12,331 pounds of CO_2 to complete their residency interviews, with 1 candidate generating as much as 44,000 pounds of CO_2. Surely some of these flights are unnecessary to the development of these gifted doctors, especially given the climate and health costs of their travel.

Professional meetings are crucial for socialization, networking, mentoring, and learning. The casual conversations and meals that surround the program are important for the development of a professional identity and lead to creative advancement in clinical practice, research, and policy. Psychiatry especially prizes sustaining connections. But, in truth, many of our assumptions about what binds us to each other have been challenged by the ways we interact now through social media, telecommunications, and our recent rapid adjustment to telepsychiatry. The APA could achieve emissions reductions well within the target of the 2015 Paris Agreement by adjusting either its APA annual meeting or residency interview procedure, which would help our profession fulfill the Hippocratic Oath to "do no harm." Using our experiences from the past 2 years, we can find ways to make changes that not only maintain sustainable connections to one another and our patients, but also contribute to the sustainability of our planet.

The panel will also include an overview of the carbon footprint of US health care and a discussion of its sustainable solutions by Todd Sack, MD, FACP, and panel chair Elizabeth Haase, MD. We look forward to sharing ideas and discussing what psychiatry should relinquish and what must be retained as we innovate for new climate-changed realities.

Mr Jeremy Wortzel *is a medical student at the University of Pennsylvania School of Medicine.* **Dr Joshua Wortzel** *is a resident at the University of Rochester School of Medicine.* **Dr Haase** *is associate professor of psychiatry at the University of Nevada School of Medicine at Reno and acts as medical director at Carson Tahoe Health, Outpatient Behavioral Health Services.*

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Psychological and Cognitive Insight: How to Tell Them Apart and Assess for Each

Jerrold Pollak, PhD

The evaluation of patients' insight into their own conditions has been a cornerstone of psychiatric practice for more than a century.[1] Most clinical studies and empirical investigations of insight have focused on patients' so-called psychological insight (sometimes referred to as *clinical insight*) and its role in the assessment and treatment of schizophrenia and other psychotic disorders. Since the early 2000s, the construct of *cognitive insight* has emerged as a complementary form and, like psychological insight, is considered to have important implications for research and clinical practice.[2]

Historically, assessment of patients' psychological insight has played a prominent part in differential diagnosis, case formulation, treatment planning, and decision-making. It has been considered an integral component of the mental status examination, intake evaluations, progress/treatment notes, and case closing summaries.

Since the advent of the stress tolerance and coping skills era of psychotherapy in the early 1990s, the construct of insight has played a less significant role in diagnosis and treatment planning. Still, the construct of insight remains an important factor to consider when utilizing a stress tolerance and coping skills approach to assessment and psychotherapy.

Psychological and Cognitive Insight

The reality is that there is no consensus definition for psychological insight. Broad and vague definitions are vulnerable to subjective judgment, low inter-rater reliability, and a high number of false positives, resulting in the overdiagnosis of insight-related problems. Narrower definitions risk generating unacceptably high rates of false negatives. This can lead to underdiagnosis of both the level and the severity of impaired insight and the erroneous conclusion that a patient has enough insight to benefit from a range of treatment options.

From a historical perspective, 3 components stand out: awareness that one has a mental disorder, the ability to correctly attribute one's symptoms to this condition, and the capacity to appreciate the need for treatment.[2] Additional components include an appreciation of the social and related consequences of one's illness.[3] For the purpose of this discussion, psychological insight can be gauged by the criteria in **Table 1**.[4]

Cognitive insight, unlike psychological insight, is a relatively recent arrival in the literature and has its genesis in the work of Aaron Beck, MD, and colleagues.[5] Cognitive insight comprises 2 components: self-reflection and self-certainty. The former refers to considering competing perspectives and entertaining alternative explanations for one's beliefs, ideas, and perceptions. The latter is the ability to be self-critical with respect to the correctness of one's beliefs, ideas, perceptions, and reasoning process. Self-certainty also includes a willingness to modify one's conclusions about self and others in response to support and empathetic feedback. Criteria for cognitive insight are included in **Table 2**.[6]

ACTIVITY GOAL

The goal of this article is to provide an overview of psychological and cognitive insight, including working definitions for these and other insight-related constructs. The etiologies of compromised insight are outlined. This article also highlights clinically relevant correlates of psychological and cognitive insight.

LEARNING OBJECTIVES

1. Clarify the similarities and differences between psychological insight and cognitive insight
2. Identify and define different types of pseudo-insight
3. Review common etiologies of compromised insight
4. Discuss the role of rating scales and psychological/neuropsychological testing in the evaluation of insight

TARGET AUDIENCE

This continuing medical education (CME) activity is intended for psychiatrists, psychologists, primary care physicians, physician assistants, nurse practitioners, and other health care professionals who seek to improve their care for patients with mental health disorders.

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Table 1. Criteria for Psychological Insight[4]

1. Some recognition of symptoms and related changes in mental status and everyday functioning
2. At least partial awareness of maladaptive perceptions, thoughts, beliefs, mood, or behavior, as well as unrealistic and skewed interpretations of remote, recent, and/or ongoing events and situations
3. A reasonable degree of concern about these difficulties and symptoms
4. Can attribute at least some difficulties and symptoms to one or more mental health conditions or other plausible health and medical-related factors
5. Appreciates the need for evaluation and treatment for difficulties and symptoms
6. Adequately understands the possible risks and benefits of the recommended treatment, including the consequences of declining treatment
7. Some ability to gauge the benefits and possible detrimental effects of ongoing treatment and capacity to work collaboratively with clinical staff
8. Can provide plausible explanations for wanting modifications to proposed treatment plan or for opting out of treatment altogether[4]

A Widespread Issue

Decreased insight is fairly common among patients with a broad range of mental health, neurodevelopmental, and neurocognitive disorders. Decrements in psychological and cognitive insight are associated with a number of difficulties for patients, their loved ones, and the practitioners involved in their care. Insight-related difficulties also have significant implications for diagnosis, case formulation, and treatment. In addition, clinicians need to carefully assess the adequacy of a patient's level of psychological and cognitive insight in order to facilitate decision-making regarding informed consent to treatment, civil commitment, mandated outpatient treatment, child custody, parental fitness, work capacity, criminal responsibility, legal guardianship, estate planning, and assisted suicide.

What is generally referred to as *impaired insight* is prevalent among patients with schizophrenia, major mood disorders, and psychotic disorders. Although estimates vary, it seems at least 30% of these patients have compromised insight, which adversely affects their judgment and decision-making, response to treatment, functioning, and quality of life, as well as the attitudes and feelings of significant others.[7]

Insight might impact treatment choices, including level of care, alliance building, choice of treatment modalities, treatment adherence, and the overall course and outcome. For example, if a patient has a history of nonadherence due to persistently impaired insight associated with a psychotic disorder, a long-acting injectable antipsychotic medication may be used to enhance adherence.[8] Patients with impaired insight are also more responsive to supportive psychotherapy with distress tolerance and coping skills components than to insight-based psychodynamically oriented psychotherapy.

As well, both psychological and cognitive insight figure prominently in psychoeducation for caregivers and nonpsychiatric health care providers regarding the psychosocial and medical needs of patients with diminished insight.[9]

The Relationship Between Insights

Measures of psychological and cognitive insight correlate to a modest degree, suggesting that these 2 conceptualizations are relatively distinct (albeit overlapping) and complementary constructs.[2]

Cognitive insight differs from psychological insight because of its emphasis on meta-cognitive capacities and, more specifically, the patient's capacity for cognitive flexibility. These considerations encompass patients' awareness of the possible fallibility of their perceptions, beliefs, ideas, and thinking processes. It also includes the ability to hear corrective feedback and then use it to correct the maladaptive reasoning that underlies faulty conclusions about oneself and others.

Moreover, because cognitive insight includes the ability to entertain alternative explanations or viewpoints, it may ultimately undergird psychological insight. As patients' cognitive insight increases, they should be more aware of their illnesses and recognize salient symptoms and their real-world impact. In this regard, both of these types of insight may work in tandem to enhance self-understanding and treatment responsiveness.

Both psychological and cognitive insights are best understood as complex and interdependent multidimensional phenomena on a continuum and, hence, should be viewed as nonbinary.[10] Therefore, the question is not whether a patient possesses or lacks psychological or cognitive insight, but rather to what degree, if at all, they demonstrate self-awareness. In this regard, patients can have adequate or better insight into one or more aspects of their condition but not others.

For example, there is evidence that patients with schizophrenia appear to have better awareness of some of their psychiatric symptoms than of their associated cognitive difficulties.[7] Or, a patient may have a very limited understanding of the significance of their psychotic symptoms and decline intervention, but may be painfully aware of their depression and receptive to treatment for mood problems.

Thus, clinicians should use their estimation of a patient's psychological and cognitive insights to create both a case-specific profile of strengths and weaknesses germane to psychological self-reflection and an estimation of the patient's ability to work in a reasonably productive manner in treatment.[1]

Psychological and cognitive insight are dynamic rather than static constructs. A patient's insight profile may change over time in response to medical, psychological, and situational influences. A patient's insight may also fluctuate due to the frequency, duration, type, and severity of neuropsychiatric symptoms.

For instance, a young adult with acute onset of a suspected substance-induced psychotic disorder may display a pattern of uniformly impaired insight, but within a few days of supportive and targeted psychiatric treatment, the same patient may demonstrate substantial improvement on one or more insight components or parameters. Conversely, if a patient has waxing and waning insight-related difficulties due to a major mood disorder with intermittent psychosis and then suffers mild head injuries, they may exhibit a more widespread, persistent, and severe profile of impaired insight, referable to postconcussive factors. Therefore, it is important to periodically reevaluate the adequacy of insight.

Additional Conceptualizations

ANOSOGNOSIA. Psychological and cognitive insight overlap with the construct of anosognosia, which is defined as unawareness or denial of illness.[11] This term is generally limited to the detrimental effects of medical conditions that impair central nervous system functioning and adversely affect a patient's ability to recognize symptoms and their neurologic causes. It also has negative effects on daily functioning and quality of life. Problems with psychological and cognitive insight are considered an integral part of a patient's neuropsychiatric status. Additionally, anosognosia might be extended to describe the insight-related difficulties of patients with neuropsychiatric disorders such as schizophrenia (**Table 3**).[3]

PSEUDO-INSIGHT. This refers to patient reports suggesting greater recognition and understanding of their clinical status than is warranted based on history, collateral information, everyday functioning, recent/current life circumstances, and clinical judgment.

In some instances, pseudo-insight represents a form of positive impression management. Patients may display pseudo-insight when seeking greater autonomy from real or perceived control by family or caregivers. Successful impression management can sometimes lead to quicker discharge from inpatient-level care, reduced involvement or termination of outpatient services and mental health court, and the voiding of conditional discharges from state hospitals.

In extreme cases, pseudo-insight can be associated with iatrogenic effects. This can occur when caretakers attempt to achieve quicker and more substantial gains in self-understanding than can be realistically assimilated and productively utilized, leading to a potentially serious worsening of the patient's clinical status.

Patients with psychotic disorders and personality disorders associated with a susceptibility to narcissistic injury (and accompanying precipitous loss of self-esteem, rage, dissociation, or transient psychosis) are especially vulnerable to destabilization in response to premature or overzealous efforts of clinicians to bolster insight. In particular, patients with borderline personality disorder are highly prone to negative therapeutic reactions, although this can also be observed in patients with other problematic personality patterns.[12]

Pseudo-insight can also be a problem after an

initial psychotic episode, when patients may experience postpsychotic depression (anxiety, depression, lowered self-esteem, increased hopelessness, suicidal preoccupation, and reduced subjective quality of life). A mix of true and pseudo-insight often accompanies and influences this phase. It has also been tied to the pernicious influence of stigma as a mediating variable, including what is referred to as self-stigma or internalized stigma.[10] Postpsychotic depression is often accompanied by a mix of accurate insight into one's condition and pseudo-insight. The pernicious influence of stigma may be a mediating variable here, notably what is referred to as "internalized stigma."

There is also a variant of pseudo-insight that may be more aptly termed "deceptive insight," which involves persuasive and seemingly illuminating self-disclosures, frequently coupled with observations of others, that aim to manipulate and exploit others. Patients with salient antisocial or psychopathic traits frequently exhibit this form of pseudo-insight.

ALEXITHYMIA. Alexithymia, which roughly translates to "no words for feelings," involves a striking inability to make sense of and report one's feelings.[13] It is characterized by severe lifelong difficulty recognizing, labeling, describing, and expressing affective states, including psychological symptoms and other mental status change. These individuals have a characterological form of impaired insight, which may be aggravated by psychosocial or other stressors. It may worsen in response to the onset of neuropsychiatric disorder(s) of varied type.

USABLE INSIGHT. This concept refers to insight that flows from an ongoing treatment that is perceived as supportive and nonthreatening. It can be productively used by the patient to achieve desirable, real-world goals while maintaining hope for continued symptomatic and functional improvement. This insight has received increased attention in the literature on recovery trajectories in psychotic disorders. It potentially has broad application to many other psychiatric conditions, including substance use disorders, because improved insight appears to contribute to better treatment outcomes.[14]

FEIGNED ILLNESS. Feigned illness involves an exaggerated and, in some instances, fabricated account of poor daily functioning secondary to psychiatric or medical disorders. It can include reports of difficulties or symptoms that are compatible with impaired insight.[15] This clinical presentation appears to reflect "negative impression management." These patients may receive a diagnosis of malingering, when the motivation involves one or more external incentives, or of a factitious disorder, when the sick role is a salient motivating factor.

An Etiology of Insight

Impaired insight may result from major mental illnesses such as schizophrenia and other psychiatric conditions, notably major mood disorders with psychotic features that are associated with diminished awareness of illness. In many cases, limitations in insight are associated with long-standing neurodevelopmentally based cognitive and neuropsychological deficits, the onset of neurocognitive deficits during the prodromal psychotic phase, or a first episode of psychosis.[16]

"Impaired insight may result from major mental illnesses such as schizophrenia and other psychiatric conditions notably major mood disorders with psychotic features that are associated with diminished awareness of illness."

In the case of anosognosia, reduced insight can result from an acute or insidious medically induced mental status change, referable to central nervous system dysfunction. This includes an acute mental status change referable to a right hemisphere cerebral vascular accident, which has well-documented negative effects on insight, and the deleterious effects of progressive neurodegenerative diseases such as Alzheimer disease and the behavioral variant of frontotemporal neurocognitive disorder.[17-19]

Impaired insight may also result from psychosocial or other stressors, which can heighten the effect of long-standing psychological defenses and associated coping strategies. That said, this explanation for diminished awareness of illness in schizophrenia and related disorders lacks clear empirical support and is not considered a sufficient explanation.[7]

Two or more etiologies can have a synergistic effect. For instance, an older adult with significant personality disorder, primarily involving one or more insight-interfering defenses (eg, denial, omnipotence, externalization of blame, projection, and/or projective identification), might develop a neurodegenerative disorder, which is also associated with diminished insight. In these circumstances, it is easy to misattribute the limitations in insight to the neurologic disorder. In fact, the patient's long-standing problematic defensive structure and coping mechanisms may be a contributory factor or even a sufficient explanation for the insight-related difficulties. This is not rare, especially early in the neurodegenerative disease process.

Along similar lines, limitations in insight frequently co-occur as part of the long-term baseline functioning of patients with neurodevelopmental disorders such as intellectual disability and autism spectrum disorder, even when these conditions are mild. Kindred conditions, like borderline intellectual functioning, are also highly associated with baseline decrements in insight. In some instances, this can lead to an overdiagnosis of an acquired impairment in insight.

A reliable history (via record review or collateral interviews with significant others) that includes neurodevelopmental status, personality patterns and traits, and general adaptation to life preceding illness onset is needed to determine the root cause of a patient's impaired insight. Reports of previous psychological and neuropsychological test evaluations can also be helpful.

Correlates of Insight

Clinical literature and empirically based studies find many unfavorable consequences of impaired insight.[2] Most of this literature pertains to psychological insight involving patients with psychotic disorders, in particular schizophrenia. Impaired insight has many negative consequences for patients' mental health, careers, and social lives (**Table 4**).[3,14,20,21]

These negative consequences make intuitive sense and continue to influence clinical practice. However, there is only modest empirical support for many of them. Moreover, most of the research study data are correlational and, hence, insufficient to clearly establish cause and effect relationships. For example, is poor treatment adherence caused by decrements in insight or do difficulties with treatment adherence result in problems with insight?[14]

Regarding schizophrenia and psychological insight, there are positive correlations between higher levels of insight and greater adherence to treatment.[14] Higher insight also correlates with improved indices of general mental health and better daily functioning over time. On the other hand, there are negative correlations between lower levels of insight and increased frequency of positive and negative psychotic symptoms, greater disorganized thinking, and increased rates of psychiatric hospitalization.

Additional empirical research on psychological insight is indicative of mixed findings regarding insight and indices of quality of life and functioning. Results have included both positive or negative correlations and no linkages between insight and these variables.[22]

Empirical research on cognitive insight has found negative correlations between the self-reflectiveness component of cognitive insight (an indicator of higher cognitive insight) and positive symptoms of psychosis.[2] Notably, these symptoms

Table 2. Criteria for Cognitive Insight[6]

1. Ability to remain objective about delusional ideas, other non-reality-based beliefs and experiences, and related cognitive misattributions and distortions
2. Capacity to put these difficulties and symptoms into perspective
3. Ability to be open and responsive to modifying one's perceptions, beliefs, and ideas
4. Capacity to be self-critical about one's beliefs and ideas

Table 3. Five Forms of Insight

- Anosognosia
- Pseudo-insight
- Alexithymia
- Usable insight
- Feigned illness

are more frequent among patients with lower self-reflectiveness. Findings are also consistent with the expected linkage between the self-certainty component of cognitive insight (an indicator of lower cognitive insight) and positive symptoms of psychosis, which are more frequent among patients with higher self-certainty. There are mixed findings regarding the relationship between cognitive insight and indices of quality of life and adequacy of daily functioning.

There is a continuously expanding body of research on the cognitive and neuropsychological correlates of insight. As is true with most other research endeavors pertaining to insight, the most widely studied form of insight is psychological insight. Most investigations have involved patients with schizophrenia and related psychotic disorders.[23]

With few exceptions, most studies of patients with schizophrenia report significant and persistent decrements in cognitive and neuropsychological functioning that encompasses general cognitive and intellectual abilities and skills, sustained attention and concentration, anterograde-episodic memory, and executive functioning.[24]

Still, patients' neurocognitive profiles show considerable heterogeneity, and small numbers of patients with schizophrenia have minimal or no discernible neurocognitive deficits based on detailed psychometric testing.[23]

Cognitive and neuropsychological functioning should be related to the adequacy of psychological insight. That is, better neurocognitive functioning should be correlated with higher levels of insight, and worse neurocognitive functioning should be linked with lower levels of insight. Overall, studies offer reasonable evidence for this prediction and support the idea that cognitive and neuropsychological deficits are meaningfully related to decrements in accurate self-appraisal.[22]

Still, the linkages are far from robust. This suggests that neurocognitive factors are probably not sufficient to explain the high base rates of impaired insight in schizophrenia and psychotic disorders. This underscores the importance of adopting a biopsychosocial perspective when it comes to understanding the relationship of insight to schizophrenia and other mental disorders, and when considering the development of effective strategies to augment insight.[23]

Negative correlations have been reported between levels of psychological insight (specifically cognitive difficulties related to having a psychotic disorder) and degrees of neurocognitive impairment.[25]

Finally, a review of the correlates of cognitive insight found fairly good support for an association between higher levels of self-certainty and worse neurocognitive functioning.[2] That review also highlights mixed findings when it comes to the expected positive correlation between the self-reflectiveness component of cognitive insight and neurocognitive functioning (namely, that higher levels of self-reflectiveness are associated with better neurocognition). More specifically, higher self-reflectiveness was associated with more compromised neurocognition.[2]

Insight and the *DSM-5*

An innovative feature of the DSM-5 is the introduction of specifiers, which are designed to provide a more fine-grained description of a patient's diagnostic status. A specifier for insight is based on the following classification: good or fair insight, poor insight, and absent insight or delusional beliefs. This specifier is indicated for 3 of the 9 disorders contained in the chapter titled "Obsessive-Compulsive and Related Disorders." It remains unclear why only 3 diagnoses and this category of disorders have these specifiers, because many *DSM-5* categories include conditions that can present with varying degrees of problematic insight, including neurodevelopmental disorders, dissociative disorders, somatic symptoms and related disorders, feeding and eating disorders, personality disorders, substance-related and addictive disorders, and neurocognitive disorders.[26]

Assessment and Tracking Tools

There is no gold standard assessment protocol or tool(s) for evaluating insight, but there are a number of self-report and clinician rating scales that have been developed since the 1990s.[27] All have their strengths and weaknesses, and none are appropriate for all patients.

"Future research should aim to better understand the therapeutics of insight, including whether specific interventions may be more effective in enhancing insight with certain patient groups."

Most rating scales have been developed for the assessment of psychotic and related disorders and are not clearly applicable to patients with suspected or known decrements in insight. Some scales measure a limited number of components of awareness, judgment, and thinking germane to insight. For example, the Measure of Insight into Cognition-Clinician rating scale is specifically designed to assess insight related to cognitive difficulties and symptoms in patients with schizophrenia.[25]

Similarly, many scales are not designed for longitudinal assessment over the course of treatment. Some are geared more to one form of insight than another. For example, the Beck Cognitive Insight Scale is designed for the assessment of cognitive insight, whereas most scales were developed for the evaluation of psychological insight.[5]

Table 4. Ramifications of Reduced Insight[3,14,20,21]

1. Decreased help-seeking behavior
2. Increased frequency and duration of untreated illness
3. Difficulty establishing workable treatment alliances
4. Poor adherence to treatment
5. More frequent and severe symptoms
6. Recurrent episodes of acute illness
7. Increased use of emergency mental health services and psychiatric admissions (notably civil commitments)
8. Worse treatment and a poorer prognosis
9. Lower educational and vocational attainment
10. Difficulty establishing and sustaining meaningful interpersonal relationships
11. Poorer everyday function and quality of life

Scales for the assessment of psychological insight intercorrelate reasonably well, which suggests that they are measuring comparable aspects of this construct. However, correlations between self-report and clinician and observer scales are modest, indicating that there are important discrepancies between patient self-appraisal and clinician judgment regarding insight.[14]

Unfortunately, the majority of these instruments have, at best, a limited normative base. Many do not have operational criteria for classifications based on level of severity (eg, impaired/poor, fair, good), which would strengthen interscorer reliability. Moreover, few instruments generate empirically derived cut-off scores for classifications (normal versus abnormal, impaired versus intact) or involve score profiles offering clear guidelines for diagnosis and treatment planning and intervention.

Self-reported rating scales are not stand-alone instruments and should only be used to supplement findings from clinician-based rating scales, clinical and semi-structured interviews, and collateral data from record reviews and informants. Clinical judgment is needed to properly utilize these scales for diagnosis, treatment planning, and longitudinal assessment.

It may be necessary to perform formal psychological and neuropsychological testing. These tests include self-reporting instruments such as the Minnesota Multiphasic Personality Inventory-3 (MMPI-3), the Personality Assessment Inventory (PAI), and the Million Clinical Multiaxial Inventory-IV (MCMI-IV). They contain scales and indices relevant to the assessment of insight (including pseudo- and deceptive insight). Formal psychological and neuropsychological testing should be considered when the patient's clinical status remains unclear following appropriate assessment or when there is some question about personality and psychodynamic or cognitive and neuropsychological factors that contribute to the patient's insight-related difficulties/symptoms. Formal testing might also follow repeated unexplained stalemates in treatment or difficulties with treatment adherence that may reflect heretofore unappreciated problematic insight.

Directions for Future Research

The clinical and empirical study of insight has largely been confined to psychotic disorders utilizing the construct of psychological insight. Therefore, considerably less is known about insight (both psychological and cognitive) in relation to mood and other disorders like obsessive-compulsive disorder.[28] There are scant data bearing on the interface of insight with nonpsychotic disorders.

A key research agenda should include the development of empirically validated strategies to enhance cognitive and psychological insight across a range of disorders. Future research should help clinicians reliably differentiate state-related from trait-related decrements in insight. Promising interventions include psychoeducation (with both patients and caregivers), cognitive-behavioral approaches, motivational interviewing, and cognitive remediation.[7,24,29]

Future research should aim to better understand the therapeutics of insight, including whether specific interventions may be more effective in enhancing insight with certain patient groups. Further, it would be useful to understand which approaches may be more efficacious than others with certain components of impaired insight and during different phases of illness and stages of treatment.[3,30]

As for nonpsychotic disorders, it would be helpful to ascertain the base rates of compromised psychological and cognitive insight in these patients, and whether there are any clinically relevant differences in the level and pattern of insight-related difficulties between psychotic and nonpsychotic disorders and, more generally, across diagnostic categories.

To address these gaps in knowledge, it would be highly desirable to have clinician and patient rating scales that generate score profiles for both psychological and cognitive insight.

Rating scales that are germane to both forms of insight could help to determine whether measuring both at once would improve incremental validity. Multiple-form rating scales could contribute to more successful treatment planning and outcomes among one or more patient groups than rating scales that address only one type of insight.

Work groups tasked with the development of an updated *DSM* should consider inclusion of a clinical and research review of insight and its application to differential diagnosis.

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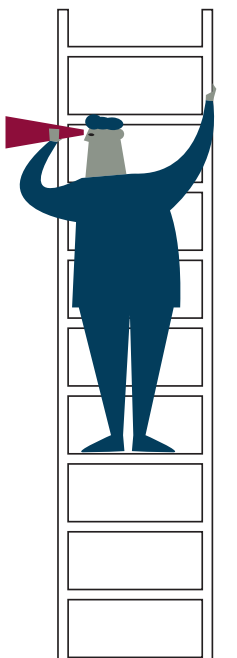
Posttest, credit request forms, and activity evaluations must be completed online at https://education.gotoper.com/activity/ptcme21apr (requires free account activation), and participants can print their certificate or statement of credit immediately. This website supports all browsers. For PER's privacypolicy, please visit https://www.gotoper.com/privacy.

PLEASE NOTE THAT THE POSTTEST IS AVAILABLE ONLINE ONLY ON THE 20TH OF THE MONTH OF ACTIVITY ISSUE AND FOR 18 MONTHS AFTER.



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Tulare County Adult Jail	$200/hr.
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Division of Behavioral Health Services

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PSYCHIATRISTS

For clinical staff and leadership positions

The State of New Jersey's Division of Behavioral Health Services is seeking motivated Psychiatrists for full-time inpatient work in our Joint Commission accredited State psychiatric hospitals and forensic center. Psychiatrists with management experience are also needed to serve as Chiefs of Psychiatry.

Post Certified - $255,541 (3+ years post certification)
Board Certified - $237,617
Board Eligible - $224,080

- Facilities are in close proximity to metropolitan centers of New York City and Philadelphia/N.J. Shore
- Psychiatrists work with a multidisciplinary team
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- Private Practice Permitted
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- Generous medical and dental benefits and retirement packages for full-time positions

Candidates must possess N.J. medical license

The Department of Health welcomes J1 Visa/Conrad 30 Program applicants. Additionally, the Department participates in a variety of State and federal workforce development and incentive programs ranging from, but not limited to the department's tuition reimbursement program and the Federal Student Loan Redemption Program. Additional information provided upon request.

Interested candidates should send a cover letter and detailed resume to:
Evan Feibusch, M.D. | Medical Director, DBHS
Evan.Feibusch@doh.nj.gov | 609.913.5316

NJ Health New Jersey Department of Health

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University of Massachusetts Medical School
UMASS
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Department of Psychiatry

Transforming Lives Through Research, Clinical Care and Education

UMass Memorial Health Care and the University of Massachusetts Medical School currently have openings within the Department of Psychiatry.

The Department of Psychiatry is a national leader in public sector psychiatry, child and adolescent psychiatry, neuropsychiatry, biological psychiatry, psychosocial rehabilitation, women's mental health, and addiction psychiatry. We integrate our clinical, research, teaching and community partnership activities to help individuals and families transform their lives through recovery from mental illness and addiction. We work in an inclusive, responsive and equitable environment. We are interested in having Faculty with diverse backgrounds join our Department who are motivated for a career that reflects excellence in clinical practice, scholarly activity and clinical research. We are the largest provider of psychiatric services in central Massachusetts, with over 400 faculty members and 12 hospitals and community mental health centers. Our settings vary and include urban clinics and beautiful shore-side facilities such as Cape Cod.

Our residency program trains 7 residents per year, including general psychiatry and specialty tracks for combined adult and child psychiatry and combined neurology. We offer fellowships in Child and Adolescent Psychiatry, Addiction Psychiatry, Forensic Psychiatry, Neuropsychiatry, and Adult Developmental Disabilities. Interested candidates should send their curriculum vitae addressed to Dr. Kimberly A. Yonkers.

UMass Medical School

Facility Medical Director
(Cape Cod and Islands Mental Health Center, Pocasset, MA)
Provides administrative and clinical oversight for the DMH-operated and contracted state hospital and community support programs. Clinical Care in our Partial Hospital program.

Full-Time Psychiatrist
(Worcester Recovery Center and Hospital, Worcester, MA)
Inpatient Services

Forensic Psychiatrist
(Worcester Recovery Center and Hospital, Worcester, MA)
Inpatient Services

Geriatric Researcher, Psychologist/Psychiatrist (UMMS, Worcester, MA)
Geriatric Research

Full-Time Psychiatrist (Brockton Multi-Service Center, Brockton, MA)
Outpatient services.

FOR ADDITIONAL INFORMATION, PLEASE CONTACT:
Marie Hobart, MD, Vice Chair, Public Sector Psychiatry
marie.hobart@umassmed.edu

Interested applicants should apply directly at
https://academicjobsonline.org/ajo/UMASSMED/Psych
(J-1 and H-1B candidates are welcome to apply)

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Chief Medical Officer (Community Healthlink, Worcester, MA)
Supervision of a large group of professionals and participation in development efforts serving >22,000 individuals each year.

Medical Director (Adult Inpatient Psychiatry Marlborough, MA)
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Interested applicants should submit a letter of interest and curriculum vitae addressed to Kimberly Yonkers, MD:
c/o: Jessica Saintelus, Physician Recruiter
Jessica.Saintelus@umassmemorial.org

http://jobs.jobvite.com/umassmemorialmedicalgroupphysicians/search?q=&d=Psychiatry

As the leading employer in the Worcester area, we seek talent and ideas from individuals of varied backgrounds and viewpoints.

Psychiatrists

The Department of Psychiatry at **New York City Health + Hospitals/Jacobi** offers Psychiatrists like you, the opportunity to make a real impact! With 89 Adult Acute Inpatient beds, a Comprehensive Psychiatric Emergency Program (CPEP), a Consultation-Liaison Service, an Adult Ambulatory Practice, and a Community-Based Assertive Community Treatment Program, we are well positioned to perform life sustaining work. The department employs evidence-based best practices in providing the highest quality care to its patients, utilizing a patient-centered approach that is respectful of their individuality, culture, and community.

Join our modern, state-of-the-art facility that offers a Level 1 Trauma Center, and located in an attractive and safe residential Bronx Neighborhood, just 20 minutes from Manhattan. As a North Bronx Healthcare Network hospital, we are affiliated with North Central Bronx Hospital and are a teaching site and academic affiliate of the Albert Einstein College of Medicine, offering a full continuum of Acute Care Inpatient and Outpatient services within diverse Medical and Surgical Specialties, including Psychiatry.

Opportunities are currently available for the following:

- Unit Chief – Behavioral Health
- Inpatient Attending
- Attending Psychiatrist CPEP
- Child Psychiatrist CPEP

Moonlighting opportunities also available!

An academic appointment at Albert Einstein College of Medicine is offered!

We offer an easily accessible location within a beautiful residential Bronx neighborhood, generous compensation package, as well as unparalleled health benefits, opportunities for advancement, retirement plan, malpractice, Sponsorship for H1 & J1 Visas, and much more! **For immediate confidential consideration, please email your CV to Joe Mastov – Physician Recruiter, at: Mastovj@pagny.org or call 646-895-3875.**

www.pagny.org

Physician Affiliate Group of New York [PAGNY] provides services to NYC Health + Hospitals Corporation (H + H), the largest public healthcare system in the United States. EOE M/F/D/V

NYC HEALTH+ HOSPITALS Jacobi

Psychiatrists

At **New York City Health + Hospitals/North Central Bronx** our goal is to make an impact on the communities we serve, each and every day! We are a modern, state-of-the-art community hospital located in an attractive and safe residential Bronx neighborhood just 20 minutes north of Manhattan. As part of the North Bronx Healthcare Network, we are affiliated with Jacobi Medical Center and are a teaching site and academic affiliate of the Albert Einstein College of Medicine, offering a full continuum of acute care inpatient and outpatient services within diverse Medical and Surgical specialties, including Psychiatry.

The Department of Psychiatry has 70 Adult and Geriatric Acute Inpatient Beds, a Partial Hospital Program, Psychiatric Emergency Consultation-Liaison Service, an Adult Ambulatory Practice, and a community-based Assertive Community Treatment Program. The department employs evidence-based best practices in providing the highest level of quality care to its patients, all while utilizing a patient-centered approach that is respectful of their individuality, culture, and community.

Opportunities are currently available for the following:

- Inpatient Attending
- Director of Psychiatry Emergency Services
- Attending Psychiatrist – Emergency Room
- Attending Psychiatrist – Partial Hospital Program
- Geriatric Psychiatry

Moonlighting opportunities also available!

An academic appointment at Albert Einstein College of Medicine is offered!

We offer an easily accessible location within a beautiful residential Bronx neighborhood, generous compensation package, as well as unparalleled health benefits, opportunities for advancement, retirement plan, malpractice,Sponsorship for H1 & J1 Visas, and much more! **For immediate confidential consideration, please email your CV to Joe Mastov – Physician Recruiter, at: Mastovj@pagny.org or call 646-895-3875.**

www.pagny.org

Physician Affiliate Group of New York [PAGNY] provides services to NYC Health + Hospitals Corporation (H + H), the largest public healthcare system in the United States. EOE M/F/D/V

NYC HEALTH+ HOSPITALS North Central Bronx

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New York is the State of Opportunity™! Join our excellent team of psychiatrists and nurse practitioners delivering compassionate care for patients involved in the justice system through a multidisciplinary model. Central New York Psychiatric Center is a dynamic organization that provides comprehensive, evidence-based mental health services through a continuum of care in our inpatient hospital and statewide correctional facilities and is accredited by The Joint Commission.

Benefits:

- Salary Range: $195,263- $268,311.
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- Optional paid on-call duty at the hospital.
- Opportunities for academic affiliation with SUNY Upstate, Division of Forensic Psychiatry.
- Generous benefits and retirement package.
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For more information, contact Jessica Wildey, HR Specialist, at 315-765-3359 or Jessica.Wildey@omh.ny.gov

PSYCHIATRISTS

$266,844 - $320,640
annual salary (Board Certified)

$260,004 - $311,592
annual salary (Board Eligible)

INPATIENT · OUTPATIENT

CALIFORNIA CORRECTIONAL HEALTH CARE SERVICES

FIND YOUR CAREER BALANCE IN CALIFORNIA

California Correctional Health Care Services is seeking proactive, knowledgeable psychiatrists to join our multidisciplinary teams. Within the California Department of Corrections and Rehabilitation's facilities, you will find like-minded professionals well-versed in the intricate psychiatric and medical interplay necessary to treat our diverse patient population. Here, you will see and develop treatment plans for cases you won't encounter in any other practice. And with the support of our dedicated medical assistants, you'll be able to devote your time to practicing and honing advanced psychopharmacological skills. Plus, with locations throughout California, you're sure to find your perfect fit.

In return for your efforts, we offer:

- 40-hour workweek with flexible schedules, including 4/10s (affords you true work-life balance)
- Generous paid time off and holiday schedule
- 401(k) and 457 plans (tax defer up to $39,000 - $52,000 per year)
- State of California retirement that vests in five years (visit www.CalPERS.ca.gov for retirement formulas)
- $10,000 Thank You Bonus to professionals newly hired with the State of California
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Blair Eversley at **CentralizedHiringUnit@cdcr.ca.gov** or **(877) 793-4473**.
You may also apply online at **www.cchcs.ca.gov**.

Effective July 1, 2020, in response to the economic crisis caused by the COVID-19 pandemic, the Personal Leave Program 2020 (PLP 2020) was implemented. PLP 2020 requires that each full-time employee receive a 9.23 percent reduction in pay in exchange for 16 hours PLP 2020 leave credits monthly through June 2022. EOE

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RECRUITING FULL TIME & PER DIEM PSYCHIATRISTS
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Northwell Health's Behavioral Health Service Line strives to address the diverse mental health needs of the communities we serve by providing a continuum of accessible, high quality psychiatric and substance abuse services including emergency, crisis, inpatient, and outpatient programs for people of all ages. Northwell's clinical programs are complemented by a robust education, training, and research enterprise, including the world-renowned Psychiatry Research Department at The Zucker Hillside Hospital, which has led cutting-edge investigations that have meaningfully influenced many lives.

TO BOLSTER OUR NETWORK OF OUTSTANDING CARE PROVIDERS,
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South Oaks Hospital
Amityville, NY

ADOLESCENT INPATIENT PSYCHIATRIST
The Zucker Hillside Hospital
Glen Oaks, NY

COLLEGE UNIT INPATIENT PSYCHIATRIST
The Zucker Hillside Hospital
Glen Oaks, NY

PERINATAL PSYCHIATRIST
The Zucker Hillside Hospital
Glen Oaks, NY

EMERGENCY PSYCHIATRIST – Per-Diem
Cohen Children's Medical Center, NY
Long Island Jewish Medical Center, NY

OUTPATIENT PSYCHIATRIST
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Staten Island, NY

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Qualified candidates should forward their CV to Lan Ma: OPR@northwell.edu

As a non-profit, health care organization, Southcentral Foundation serves Alaska Native and American Indian people in the Anchorage service area. Our relationship-based Nuka System of Care is one of the nation's most innovative health care systems. With a focus on multidimensional wellness, 4/10 option, outpatient clinics, residential homes for adolescents, substance abuse programs, and a behavioral urgent response team.

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- Exp w ADHD
- Earn $100k+ working 20hr a week

Email resume:
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Full-time psychiatrist for a large public health & hospital system in Silicon Valley

$275,080 -$357,600 annually
36 days of annual leave
Full benefits & retirement
(Above annual salary includes additional pay for Board Certification and Acute Settings)

Santa Clara Valley Health and Hospital System, a public healthcare system in the heart of Silicon Valley, is seeking full-time BE/BC psychiatrists for a variety of clinical settings, including emergency psychiatric services, inpatient consultation liaison services, jail custody health inpatient services, specialty mental health outpatient services and primary care behavioral health services.

As the largest public health care system in northern California, we offer comprehensive healthcare resources to a large and diverse patient population. Psychiatrists are part of a robust team of staff that work in collaboration with other medical specialties and behavioral health clinicians to provide integrated health care to patients.

Psychiatrists are eligible for numerous benefits including 36 days of annual leave, 5 days of educational leave, 12 holidays, $4500 educational funds, health benefits, life insurance and CalPERS retirement plan. No calls required.

In addition, part-time opportunities for BE/BC psychiatrists, PGY IIIs and IVs are available.

If you are interested in working in a dynamic and collegial work environment, please submit a CV and letter of interest to MD.Recruitment@hhs.sccgov.org.

The County of Santa Clara is an Equal Opportunity.

Outpatient Psychiatry Opportunity

San Joaquin County Behavioral Health Services is seeking to fill Outpatient Adult [General], and Sub-Specialty Psychiatry (Child Psychiatry, Geriatric, Forensic, Addiction and Psychosomatic Medicine) positions in a multidisciplinary, recovery-oriented clinical setting. Services are provided either on-site or using a hybrid model of on-site and tele-psychiatry practice. The positions offer a very competitive salary with a guaranteed base, plus incentive opportunities, board certified Psychiatrists have the potential to easily earn over 300K+ a year; comprehensive health insurance; up to three retirement and pension programs; 35 days of vacation and CME time that increase with tenure. Signing and moving bonuses are also available. Interested J-1 and H-1B candidates are welcome to apply.
Fax your CV to 209-468-2399 or email to BHSadministration@sjcbhs.org. EOE

Psychiatrist Position
Excellent Opportunity in California

Imperial County Behavioral Health Services is currently recruiting for full-time or part-time psychiatrists. Imperial County, a rich farming area with a population of 180,000, is located 90 miles east of San Diego, 90 miles south of Palm Springs, 60 miles west of Yuma, Arizona, and just north of the cosmopolitan city of Mexicali, Mexico. San Diego State University maintains a satellite campus in Calexico, and there are several private and public universities located in Mexicali. Imperial County's location and diversity make it the perfect place for any professional.

The position pays a highly competitive salary, including health benefits for you and your family, requires no hospital work and minimal after-hours work, freeing you up for more leisurely activities. As a Psychiatrist with Imperial County Behavioral Health, you will be part of a multi-disciplinary treatment team that includes therapists, nurses and rehabilitation technicians that provide comprehensive support and resources to assist clients in achieving recovery.

J-1 and H1-B Applicants welcome. Our agency is experienced in successfully processing J-1 Waiver and H-1B Visa applicants.

Qualified candidates must have a CA medical license or ability to obtain. Send CV to Imperial County Behavioral Health Services, 202 North 8th Street, El Centro, CA 92243.

For additional information, please contact: Kristen Smith (442)265-1606 kristensmith@co.imperial.ca.us

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Please send your CV or resume by email if interested in getting more information. david@citrials.com

FLORIDA

UNIVERSITY OF MIAMI, DEPARTMENT OF PSYCHIATRY

EXCEPTIONAL PSYCHIATRY OPPORTUNITY

Addiction Psychiatrist

The Department of Psychiatry and Behavioral Sciences at the University of Miami announce a search for an academic psychiatrist with interest and experience in Addiction Psychiatry. Applicants with clinical translational research background and track record of funding are encouraged.

JOB DESCRIPTION

We are seeking an Associate Professor or equivalent to take on a leadership role in the Department as Division Chief for Addiction Psychiatry and Director of the Addiction Fellowship.

QUALIFICATIONS OF THE PSYCHIATRIST

- Board certification in Psychiatry.
- Board eligibility/certification in Addiction Psychiatry
- Demonstrated record of experience and training in addiction psychiatry.

COMPENSATION & BENEFITS

This dynamic position commands an extremely competitive salary enhanced by an attractive benefits package, including but not limited to:

- Competitive compensation including bonus programs and vacation.
- Comprehensive benefits include health/dental/vision, paid malpractice, and 403(b) plans.

The University of Miami (UM) Miller School of Medicine is an academic medical center with extensive clinical facilities including the UHealth system, Jackson Memorial Hospital, and the Miami VA Hospital. Department psychiatrists are on the faculty of the Miller School of Medicine, South Florida's only academic medical center.

CV's and letter of interest can be directed to: Carmen Alsina at calsina@med.miami.edu

SYLVESTER COMPREHENSIVE CANCER CENTER
UNIVERSITY OF MIAMI HEALTH SYSTEM

NCI Comprehensive Cancer Center

UNIVERSITY OF MIAMI, DEPARTMENT OF PSYCHIATRY

SYLVESTER COMPREHENSIVE CANCER CENTER

EXCEPTIONAL PSYCHIATRY OPPORTUNITY

Consultation-Liaison Psychiatrist & Psycho-Oncology

The Department of Psychiatry and Behavioral Sciences at the University of Miami and the NCI-designated Sylvester Comprehensive Cancer Center announce a search for an academic psychiatrist with interest and experience in Consultation Liaison Psychiatry. Applicants will work collaboratively with fellow psycho-oncology providers including psychologists, psychiatrists, oncology social workers and other multidisciplinary members providing oncology services.

JOB DESCRIPTION

The candidate will provide psychiatric consultation-liaison services across inpatient and outpatient oncology settings. As a faculty member of the Department of Psychiatry and Behavioral Sciences, the candidate will be expected to participate in psycho-oncology teaching and training activities. Research opportunities in psycho-oncology are also available.

QUALIFICATIONS OF THE PSYCHIATRIST

- Board certification in Psychiatry.
- Board eligibility/certification in C-L Psychiatry would be preferred but experience will be considered.
- Demonstrated record of interest or training in psycho-oncology preferred.

COMPENSATION & BENEFITS

This dynamic position commands an extremely competitive salary enhanced by an attractive benefits package, including but not limited to:

- Competitive compensation including bonus programs and vacation.
- Comprehensive benefits include health/dental/vision, paid malpractice, and 403(b) plans.

The University of Miami (UM) Miller School of Medicine is an academic medical center with extensive clinical facilities including the NCI-designated Sylvester Comprehensive Cancer Center (Sylvester). All Sylvester physicians are on the faculty of the Miller School of Medicine, South Florida's only academic medical center.

CV's and letter of interest can be directed to Maria Rueda-Lara, MD email: mrueda2@med.miami.edu

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Interested candidates apply at: https://smhc-nh.org/job-openings

EOE M/F

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CarePoint Health

Medical Director, Psychiatry
CarePoint Health System
Jersey City, New Jersey, United States

CarePoint Health is recruiting for a Full Time Medical Director position with Christ Hospital located in Jersey City, NJ

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- Adult Population, 17 Beds, Average Census: 14
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- BC-Geneal Psychiatry Acceptable

Compensation & Benefits

- Competitive compensation Including: Bonus and On Call
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CarePoint Health is a three-hospital system: Bayonne Medical Center, Christ Hospital (Jersey City) and Hoboken University Medical Center. We also have a large Medical Group for referrals. The health system is across the Hudson River from New York City. Enjoy all the amenities of having a great practice, with its close relation to New York City, the Pocono Mountains of Pennsylvania, and New England. Position is employed with the health system.

For consideration, CVs can be sent to Michael Georgevich, MHA Email: Michael.Georgevich@carepointhealth.org

NEW YORK

MELIORA
UNIVERSITY of ROCHESTER MEDICAL CENTER

University of Rochester Department of Psychiatry has an opportunity for psychiatrists interested in developing a career in Emergency Psychiatry to join the energetic and dedicated team of our Comprehensive Psychiatric Emergency Program, in the pursuit of clinical and academic excellence.

This full-time position includes an academic appointment with University of Rochester School of Medicine and Dentistry at the rank of instructor, assistant or associate professor, commensurate with experience and accomplishments, and ample opportunities for faculty development within a robust tradition of mentorship. Teaching and clinical supervision of psychiatric residents and fellows, medical students and other trainees is an integral part of this position, along with involvement in process improvement and program development, and direct interfacing with Emergency Medicine department and the Pediatric and Adult Acute inpatient psychiatric units.

With over 8,500 visit per year, we are the primary provider of emergency psychiatric services to our diverse and vibrant community in Western New York. Our program has a 24/7 interdisciplinary team of psychiatrists, nurse practitioners, RN's and social workers, and encompasses a dedicated behavioral health space immediately adjacent to the Emergency Department. The Comprehensive Psychiatric Emergency Program also includes an Extended Observation Bed Unit and a Mobile Crisis Team. One of the nation's top academic medical centers, the University of Rochester Medical Center forms the centerpiece of the University's health research, teaching, patient care and community outreach missions. The University's health care delivery network is anchored by Strong Memorial Hospital - an 800-bed, University-owned teaching hospital, which boasts specialty programs that consistently, rank among the best in the nation. At URMC, our robust teaching and research programs transform the patient experience with fresh ideas and approaches steeped in disciplined science. Here, health care professionals who innovate, take intelligent risks, and care deeply about the lives they touch deliver care.

The Greater Rochester area and surrounding counties constitute a community of over one million residents spread over many neighborhoods and townships. With a wealth of unique attractions and events spanning all four seasons, the city has been rated by Forbes as one of America's top ten most livable cities, #3 Best Places to Raise a Family 2010, Top 50 Most Educated Cities in America, and boasts affordable housing and public schools that rank among the highest in the nation.

Compensation includes an excellent, nationally competitive base salary, with bonus/moonlighting opportunities, loan forgiveness program, annual CME allotment, and generous benefits package through the University, including retirement program with direct University contribution and tuition benefits.

Minimum requirements include board certification/board eligible in general psychiatry, and eligibility for an unrestricted NYS medical license.

For immediate consideration, please apply online and send letter of interest and CV to:
Jessica Millspaugh
Faculty Recruitment Coordinator
Phone: (585) 275-3569
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SOUTH CAROLINA

PRISMA HEALTH

Inspire health. Serve with compassion. Be the difference.

Seeking Candidates for Director of Adult Residency Training Program in Psychiatry
Greer, SC

Prisma Health, the largest not-for-profit healthcare provider in South Carolina, currently seeks board certified psychiatrist to join our growing department and training program. We are seeking qualified candidate for program director for our adult residency training program in Greer, South Carolina. Ideal candidates will be appointed to the University of South Carolina School of Medicine Greenville faculty and work closely with the department chair as we welcome our second class of eight residents in July 2021.

Details Include:

- Candidate must be board certified in psychiatry and demonstrated accomplishments as an educator with leadership experience in academic psychiatry for a minimum of 3 years.
- Must possess or be eligible or license in the state of South Carolina.
- Experience in an outpatient mental health setting, including telepsychiatry services
- Clinical responsibilities in the outpatient setting and consultation-liaison coverage in small hospital
- Academic faculty position working with residents and medical students
- Rich benefits package including relocation, malpractice, health and dental insurance
- CME allowance and competitive compensation
- Responsibilities:
  - Direct teaching and training
  - Evaluating and supervising residents
  - Mentoring
  - Developing, monitoring, and evaluating didactic courses and rotations
  - Facilitating required committees (Residency Education Committee, Clinical Competency, Program Evaluation Committee
  - Overseeing and organizing program accreditation processes

Prisma Health - Upstate employs 16,000 people, including over 1,200+ physicians on staff. Our system includes clinically excellent facilities with 1,627 beds across 8

campuses. Additionally, we host 19 residency and fellowship programs and a 4-year medical education program: University of South Carolina School of Medicine–Greenville, located on Prisma Health Greenville Memorial Medical Campus. We are a designated Level I Emergency Trauma Center and have a separate research facility.

Greer is located near Greenville, South Carolina and a beautiful place to live and work and the Prisma Health - Upstate catchment area is 1.3 million people. Greenville is located on the I-85 corridor between Atlanta and Charlotte, and is one of the fastest growing areas in the country. Ideally situated near beautiful mountains, lakes and beaches, we enjoy a diverse and thriving economy, excellent quality of life and wonderful cultural and educational opportunities.

Public Service Loan Forgiveness (PSLF) Program Qualified Employer

Qualified candidates should submit a letter of interest and CV to: Natasha Durham, Physician Recruiter, Natasha.Durham@PrismaHealth.org, ph: 864-797-6114

Prisma Health is an equal opportunity employer which proudly values diversity. Candidates of all backgrounds are encouraged to apply.

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Child & Adolescent Psychiatrist Consultation-Liaison and Emergent Telepsychiatry Evaluations Greenville, SC

Prisma Health, the largest not-for-profit healthcare provider in South Carolina, currently seeks BC/BE Child & Adolescent Psychiatrists to join our growing psychiatry department. The department is expanding our clinical, education, and research missions and looking for great candidates to help us grow!

Successful candidates will have the opportunity to work within our children's hospital and emergency department as well as performing telepsychiatry to our primary and specialty care clinics. Ideal candidates should have an interest in teaching and eligibility for faculty appointment with University of South Carolina School of Medicine Greenville, located on Prisma Health's Greenville Memorial Medical Campus.

Details Include:

- Candidate must be fellowship-trained and BE/BC in child and adolescent psychiatry
- Experience or interest in working in a consultation-liaison role (inpatient, emergency department, and emergent outpatient telepsychiatry visits to primary care clinics (adults and children)
- Monday - Friday Outpatient with 1:7 weekend inpatient coverage
- Academic faculty position working with fellows, residents and medical students
- Competitive compensation
- Rich benefits package including relocation, malpractice, health and dental insurance
- CME allowance

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CHA Cambridge Health Alliance AFFILIATED WITH
Beth Israel Deaconess Medical Center · MassGeneral Hospital for Children · Harvard Medical School Teaching Hospital · Harvard School of Dental Medicine · Harvard T.H. Chan School of Public Health · Tufts School of Medicine

Cambridge Health Alliance
Child & Adolescent Inpatient Psychiatry Expansion

Cambridge Health Alliance (CHA), a well-respected, nationally recognized, and award-winning public healthcare system, is one of the region's leading providers of behavioral and mental health care. **The new CHA Center of Excellence for Child & Adolescent Inpatient Mental Health Care at Somerville** will provide a transformative continuum of patient- and family- centered care for diverse youth with mental health needs. Including specialized autism spectrum/ neurodevelopmental beds at our Somerville Campus.

CHA is passionate about helping children and their families, join our expanding team and make a difference!

Psychiatry Opportunities:
- Inpatient Child/Adolescent Psychiatrists
- Inpatient Neurodevelopmental Child/ Adolescent Psychiatrists

Psychology Opportunities:
- Inpatient Child/Adolescent Psychologists
- Pediatric Neuropsychologists

CHA is a teaching affiliate of Harvard Medical School (HMS) and academic appointments are available commensurate with medical school criteria.

Please visit www.CHAproviders.org to learn more and apply through our secure candidate portal. CVs may be sent directly to Melissa Kelley, CHA Provider Recruiter via email at providerrecruitment@challiance.org. CHA's Department of Provider Recruitment may be reached by phone at (617) 665-3555 or by fax at (617) 665-3553.

In keeping with federal, state and local laws, Cambridge Health Alliance (CHA) policy forbids employees and associates to discriminate against anyone based on race, religion, color, gender, age, marital status, national origin, sexual orientation, relationship identity or relationship structure, gender identity or expression, veteran status, disability or any other characteristic protected by law. We are committed to establishing and maintaining a workplace free of discrimination. We are fully committed to equal employment opportunity. We will not tolerate unlawful discrimination in the recruitment, hiring, termination, promotion, salary treatment or any other condition of employment or career development. Furthermore, we will not tolerate the use of discriminatory slurs, or other remarks, jokes or conduct, that in the judgment of CHA, encourage or permit an offensive or hostile work environment.

Hackensack Meridian *Health*

Hackensack Meridian *Health* · SETON HALL UNIVERSITY
HACKENSACK MERIDIAN SCHOOL OF MEDICINE AT SETON HALL UNIVERSITY

Department of Psychiatry

With the continued growth of our Department of Psychiatry and our New General Psychiatry Residency Programs at Ocean Medical Center and Jersey Shore University Medical Center our vision for Behavioral Health is Bright.

Hackensack Meridian Health is a leading not-for-profit health care network in New Jersey offering a complete range of medical services, innovative research, and life enhancing care aiming to serve as a national model for changing and simplifying health care delivery through partnerships with innovative companies and focusing on quality and safety.

Through a partnership between Hackensack Meridian Health and Seton Hall University, the School of Medicine will re-define graduate medical education, research, and clinical practice; reverse the critical physician shortage in both the New York/New Jersey metropolitan area and the nation; and stimulate economic development in northern New Jersey.

The School of Medicine will be the anchor in the development of a comprehensive health sciences campus that will also include research facilities and biotechnology endeavors – all in service of educating tomorrow's doctors, discovering novel therapies, and facilitating compassionate and effective healthcare that will meet the ever-changing needs of tomorrow's patients.

The School of Medicine will be the cornerstone of a dynamic venue for the exchange of ideas, the development of healthcare and research thought leaders and practitioners, and the discovery of novel therapies to meet the medical challenges of the future.

"Ocean Medical Center's psychiatry program will be a community-based program," said Ramon Solhkhah, M.D., program director for psychiatry as well as founding Chair of Psychiatry & Behavioral Health at the Hackensack Meridian School of Medicine at Seton Hall University. "Our new psychiatry residency program will improve clinical care and ultimately encourage future health care leaders to build practices in the Jersey Shore area,"

As the area's premier provider of psychiatric services, **Hackensack Meridian Behavioral Health Services** has provided comprehensive mental health and substance abuse services to the residents of Monmouth, Ocean, Middlesex, and Bergen Counties for over forty years. Due to continued growth and expansion, we are currently accepting applications for Psychiatrists to join our Mental Health and Addiction Interdisciplinary Teams in the following positions:

- **Carrier Clinic -Inpatient Attending-** Child/Adolescent and Adult/Geriatric–Carrier Clinic (Belle Mead, NJ)
  Carrier Clinic – Inpatient- PT House Physician (weekends)
  On-Call Weekend Rounding Physician
- **Child & Adolescent Section Chief** – Includes Pediatric CL: Jersey Shore University Medical Center, (Neptune, NJ)
- **Consultation Liaison Psychiatrists:** Hackensack University Medical Center (Hackensack, NJ), JFK Medical Center (Edison, NJ), Ocean Medical Center (Brick, NJ), Jersey Shore University Medical Center (Neptune, NJ)
- **Outpatient:** Ocean Medical Center (Brick, NJ)
- **Staff Psychiatrist for Adult Inpatient Unit:** Riverview Medical Center (Red Bank, NJ) and Hackensack University Medical Center (Hackensack, NJ)
- **Outpatient Child & Adolescent Psychiatrist:** Hackensack University Medical Center (Hackensack, NJ)
- **Geriatric Psychiatry:** Hackensack University Medical Center (Hackensack, NJ)
- **ED/Crisis Unit:** Jersey Shore University Medical Center (Neptune, NJ)
- **Telehealth Remote Psychiatrist**

Renee.Theobald@hackensackmeridian.org or call: 908-839-5693

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As you enjoy the print edition of *Psychiatric Times*®, take a minute to go to our updated website for in-depth coverage and timely news and information.

Updated features include:

- Simple and flexible interface
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Drizalma Sprinkle™ Capsules Have Demonstrated Bioequivalence to Cymbalta® (duloxetine delayed-release capsules)[1,4]

Drizalma Sprinkle™
(DULOXETINE) DELAYED-RELEASE CAPSULES
20 mg, 30 mg, 40 mg, 60 mg

- Because delayed-release duloxetine capsules are not able to be crushed, opened, or sprinkled, Drizalma Sprinkle™ provides the first and only once-daily, delayed-release dosing option for patients who cannot or will not swallow solid medication forms[1,5,6]
- Drizalma Sprinkle™ provides the same drug release whether it is swallowed whole in capsule form, sprinkled over applesauce, or administered via nasogastric tube[1]

The duloxetine your patients require—approved in a sprinkle formulation designed for those who cannot or will not swallow solid forms of medication[1]

Dosing and Administration

- Drizalma Sprinkle™ is available in 4 dosage strengths—20 mg, 30 mg, 40 mg, and 60 mg—for flexibility and easy titration[1]
- Drizalma Sprinkle™ can be administered with or without food. Capsules can be opened, and the contents sprinkled over applesauce[1]

IMPORTANT SAFETY INFORMATION (cont'd)

ADVERSE REACTIONS

The most common adverse reactions (≥5% and at least twice the incidence of placebo patients) were nausea, dry mouth, somnolence, constipation, decreased appetite, and hyperhidrosis.

DOSING AND ADMINISTRATION

Drizalma Sprinkle™ may be taken with or without food. Drizalma Sprinkle™ may be swallowed whole (do not crush or chew capsule); opened and sprinkled over applesauce; or administered via nasogastric tube.

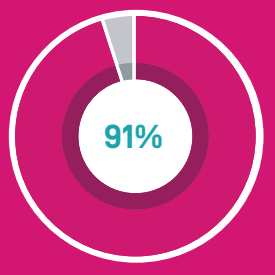
DRUG INTERACTIONS

- Avoid concomitant use with potent CYP1A2 inhibitors
- Consider dose reduction with concomitant use with CYP2D6 substrates

USE IN SPECIFIC POPULATIONS

- **Hepatic Impairment:** Avoid use in patients with mild, moderate, or severe hepatic impairment
- **Renal Impairment:** Avoid use in patients with severe renal impairment
- **Pregnancy:** Advise patients to notify their healthcare provider if they become pregnant or intend to become pregnant during treatment with Drizalma Sprinkle™. Third trimester use may increase risk of symptoms of poor adaptation (respiratory distress, temperature instability, feeding difficulty, hypotonia, tremor, irritability) in the neonate. Advise patients that Drizalma Sprinkle™ use during the month before delivery may lead to an increased risk for postpartum hemorrhage and may increase the risk of neonatal complications requiring prolonged hospitalization, respiratory support and tube feeding

Please see additional Important Safety Information throughout this journal cover wrap, and Brief Summary of Full Prescribing Information, including Boxed Warning.



Drizalma Sprinkle™ is Covered on Most Medicare Part D Plans

91% of lives on the top 10 Medicare Part D plans are offered coverage for Drizalma Sprinkle™[4]

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Drizalma Sprinkle™ is designed for patients who cannot or will not swallow solid medication forms[1]

Drizalma Sprinkle™ provides effective therapy in one formulation for 4 different indications[1]:

- Major Depressive Disorder (MDD) in adults
- Generalized Anxiety Disorder (GAD) in adults and pediatric patients aged 7 to 17 years
- Diabetic Peripheral Neuropathic Pain (DPNP) in adults
- Chronic musculoskeletal pain in adults

IMPORTANT SAFETY INFORMATION (cont'd)

USE IN SPECIFIC POPULATIONS (cont'd)

- **Lactation:** Advise breastfeeding women using duloxetine to monitor infants for sedation, poor feeding and poor weight gain and to seek medical care if they notice these signs

To report SUSPECTED ADVERSE REACTIONS, contact Sun Pharmaceutical Industries, Inc. at 1-800-818-4555 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Please see additional Important Safety Information throughout this journal cover wrap, and Brief Summary of Full Prescribing Information, including Boxed Warning.

To Learn More, Visit: drizalmasprinklehcp.com

References: 1. Drizalma Sprinkle™ [prescribing information]. Cranbury, NJ: Sun Pharmaceutical Industries, Inc., 2020. **2.** National Alliance on Mental Health. Depression in older persons fact sheet. National Council on Aging website. www.ncoa.org/wp-content/uploads/Depression_Older_Persons_FactSheet_2009.pdf. Published October 2009. Accessed October 2, 2020. **3.** Center for Drug Evaluation and Research, US Food and Drug Administration. *Size, Shape, and Other Physical Attributes of Generic Tablets and Capsules: Guidance for Industry.* www.fda.gov/media/87344/download. Published June 2015. Accessed October 2, 2020. **4.** Data on file. Sun Pharmaceutical Industries, Inc., Princeton, NJ. **5.** Institute for Safe Medication Practices. Oral dosage forms that should not be crushed. Published November 1, 2018. Accessed October 2, 2020. www.ismp.org/recommendations/do-not-crush. **6.** Cymbalta® [prescribing information]. Indianapolis, IN: Lilly USA, LLC; 2020.

This promotional program was developed in conjunction with and sponsored by Sun Pharmaceutical Industries, Inc.

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Drizalma Sprinkle™
(DULOXETINE) DELAYED-RELEASE CAPSULES
20 mg, 30 mg, 40 mg, 60 mg