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AT A CROSSROADS

Clinicians and Law Enforcement, a Partnership to Protect Mental Health

Leah Kuntz; Jeff Futo; and Mark R. Munetz, MD

Individuals with serious mental illness are over 10 times as likely to experience use of force in interactions with law enforcement than those without serious mental illness.[1] Furthermore, approximately 25% of all fatal police shootings in the US between 2015 and 2020 involved someone with a mental illness.[2] What can be done to prevent these tragedies? According to 2 experts, the best possible avenue is partnership and cooperation between mental health clinicians and law enforcement.

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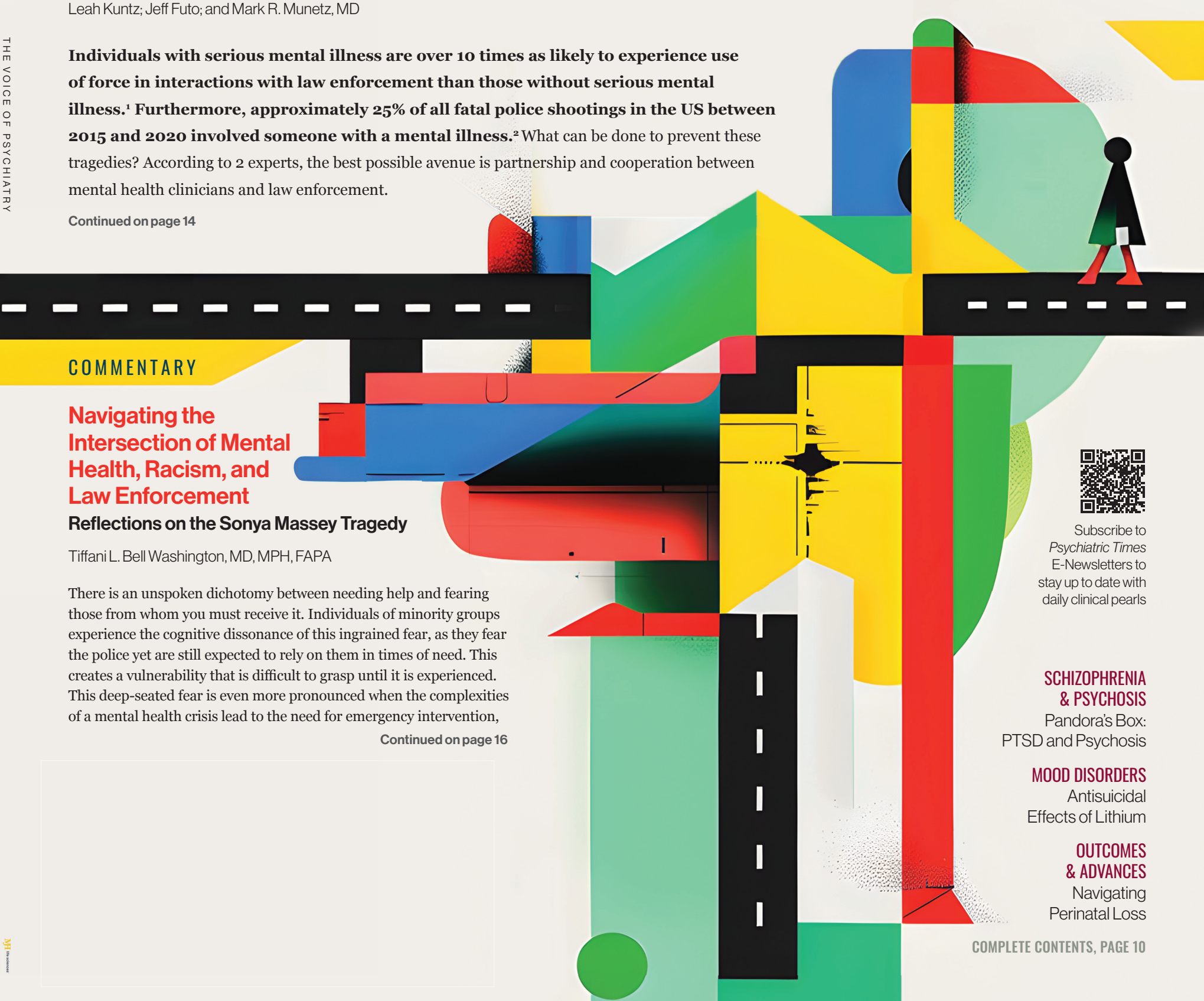

COMMENTARY

Navigating the Intersection of Mental Health, Racism, and Law Enforcement

Reflections on the Sonya Massey Tragedy

Tiffani L. Bell Washington, MD, MPH, FAPA

There is an unspoken dichotomy between needing help and fearing those from whom you must receive it. Individuals of minority groups experience the cognitive dissonance of this ingrained fear, as they fear the police yet are still expected to rely on them in times of need. This creates a vulnerability that is difficult to grasp until it is experienced. This deep-seated fear is even more pronounced when the complexities of a mental health crisis lead to the need for emergency intervention,

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In This Issue

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Publisher's Note

What We Are Thankful For

The month of November is a time to celebrate, reconnect with friends and family, and give thanks. Allow us to share a short list of some things for which we are thankful.

Most importantly, we are thankful for you, the psychiatric clinicians who strive to provide top-quality care and improve patient outcomes. We do our best at *Psychiatric Times* to assist you in this endeavor by sharing best practice tips and clinical pearls from your colleagues and leaders in the field cover to cover in every print issue and online at psychiatrictimes.com.

We are also thankful for the robust and thriving pipeline of innovative treatments. For the first time in more than 50 years, there is a new agent with a novel mechanism of action for schizophrenia: Cobenfy, formerly known as KarXT. To live in such a historic time of advancements is extremely exciting, and who knows what the upcoming year will bring in terms of discoveries and approvals?

We are also thankful to be the voice of psychiatry, providing a platform to psychiatric clinicians from around the world. In this issue, you can find a myriad of voices, including a continuing education article on multidisciplinary inpatient care for youth with eating disorders, a Special Report focused on forensic psychiatry, and an update on trauma and psychosis, along with much more.

What are you thankful for in psychiatry and your work life? Share via social media or write to us at PTEditor@mmhgroup.com. ■

Mike Hennessy Jr
President and CEO, MJH Life Sciences

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Schizophrenia Pharmacology: Version 2.0

John J. Miller, MD **Editor in Chief** Dr Miller is medical director of Brain Health in Exeter, New Hampshire; editor in chief of *Psychiatric Times*; staff psychiatrist at Seacoast Mental Health Center, Exeter; and consulting psychiatrist at the Insight Meditation Society in Barre, Massachusetts.

September 26, 2024, turned out to be a paradigm-changing day for the treatment of individuals with schizophrenia. KarXT (Cobenfy) was approved by the US Food and Drug Administration (FDA) after a 15-year journey that started with a young scientist's remarkable vision for developing a medication with the first new mechanism of action since 1954 to treat individuals with schizophrenia. The name KarXT defines the story: a small start-up company named Karuna Therapeutics, Inc, hypothesized that by combining 2 well-established molecules—xanomeline and trospium—brain circuits associated with schizophrenia could be modulated by a novel nondopaminergic mechanism to improve symptoms and have an entirely different pharmacology than all the other medications currently approved to treat schizophrenia that were developed over the past 70 years.

The Visionary

At age 27, Andrew Miller, who had just completed his chemical engineering doctorate, began to explore possible innovations for unmet needs in medicine. With no background in pharmacology or medicine, after much effort and investigation, Dr Miller became passionate about developing a new treatment for schizophrenia. Researching the existing literature on possible novel mechanisms of action, he identified an established model of treating cognitive and psychotic symptoms by agonizing 2 specific muscarinic cholinergic receptors (mAChRs) in the brain: M1 and M4. Back in the 1990s, Eli Lilly and Company studied xanomeline, a molecule that binds tightly to all 5 of the mAChRs and has significant agonism activity at the M1 and M4 receptors, as a possible treatment for cognitive function in Alzheimer disease. Significantly, xanomeline demonstrated improvement compared with placebo in cognitive function, and in an astounding and serendipitous finding, it also demonstrated improvements in psychotic symptoms in patients with Alzheimer disease. Subsequently, data from a study demonstrated improvement in psychosis and cognition in patients with schizophrenia. However, further development of xanomeline was abandoned due to the poor tolerability that is expected from a medication that agonizes the mAChRs in the peripheral nervous system, specifically nausea, vomiting, diarrhea, sweating, and salivation.

Thinking outside the metaphorical box, Dr Miller asked himself if adding an anticholinergic medication that could not cross the blood-brain barrier might just allow for the central M1 and M4 agonism while mitigating the peripheral mAChR adverse effects. Dr Miller and colleagues created a list of all existing candidate medication combinations, which numbered 7410. The first combination on that list was xanomeline and trospium—an anticholinergic medication the FDA approved in 2004 for overactive bladder. Dr Miller hypothesized that finding an optimal dosing combination of xanomeline and trospium could provide the central benefits for psychosis and cognition while minimizing the peripheral adverse events. The final obstacle in testing this hypothesis was a lack of financial resources, with only $4000 left in the bank account. At this point in the journey, Dr Miller was the only employee of Karuna, which was founded around the development of KarXT. He applied for funding from the Wellcome Trust, a philanthropic organization based in the United Kingdom, which awarded Karuna funding for the initial clinical trial with KarXT. With $5.5 million in hand, Dr Miller could assemble a team to investigate whether or not the xanomeline/trospium combination had a future in the treatment of individuals with schizophrenia.

KarXT Clinical Development

The phase 2 clinical trial, named EMERGENT-1, was a 5-week double-blind placebo-controlled trial of KarXT in individuals with schizophrenia experiencing a significant relapse of symptoms, with an average Positive and Negative Syndrome Scale (PANSS) total score of 97, which places these patients in the "markedly ill" category. At the end of 5 weeks, the least square mean (LSM) improvement in total PANSS score, the primary outcome, in the KarXT group was 11.6 points greater than in the placebo group, with an effect size of 0.81.[1] This robust outcome paved the way for 2 more identically designed phase 3 trials (EMERGENT-2 and -3), the findings of which demonstrated a similar improvement in the total PANSS score compared with placebo, as well as strong effect sizes (LSM improvements, 9.6 points and 8.4 points; effect sizes, 0.61 and 0.60, respectively).[2,3] Finally, 2 open-label, 52-week phase 3 studies designed to further assess the long-term safety, tolerability, and efficacy of KarXT in adult patients with schizophrenia were completed. Data from those studies, EMERGENT-4 and -5, supported the findings of the 5-week studies.[4,5]

Not an Antipsychotic

Significantly, in the FDA product insert (PI), Cobenfy is defined as being "indicated for the treatment of schizophrenia in adults."[6] Throughout the PI, it is never referred to as an antipsychotic medication. This is notable, as the FDA has described all other medications currently

approved to treat schizophrenia, from chlorpromazine (Thorazine) in 1954 to lumateperone (Caplyta) in 2019, as antipsychotics. A common property of all these antipsychotic medications is antagonism or antagonism/partial agonism of the dopamine-2 receptor (D2R), which has been hypothesized to be the mechanism that decreases the positive symptoms of schizophrenia, such as auditory hallucinations and delusions.

Schizophrenia has been well established as a syndrome with 3 primary symptom clusters—positive, negative, and cognitive symptoms. However, from 1954, when chlorpromazine became available in the United States, the treatment focus turned almost entirely to treatment of the positive symptoms because these responded to D2R blockade. Unfortunately, the antagonism of D2Rs in other parts of the brain comes at quite a cost, worsening the cognitive and negative symptoms (called secondary),[7] muscle dystonia, akathisia, drug-induced parkinsonism, tardive dyskinesia, weight gain, sedation, prolactin elevation, neuroleptic malignant syndrome, and others. Cobenfy has not demonstrated any of these adverse events. It remains to be seen if Cobenfy improves cognitive and/or negative symptoms in schizophrenia. Additionally, Cobenfy has no boxed warnings from the FDA, and its adverse events, contraindications, warnings, and precautions documented in its PI are quite different from the antipsychotic medications we have been prescribing for the past 70 years. As a result, the prescriber has much to learn about this novel treatment option for individuals with schizophrenia. The interested reader can learn more about the putative mechanism of action of Cobenfy in reference 8.[8]

TABLE 1. Common Adverse Reactions to Cobenfy[6]
(incidence, greater than or equal to 5% and at least twice that of placebo)

- Nausea
- Dyspepsia
- Constipation
- Vomiting
- Hypertension
- Abdominal pain
- Diarrhea
- Tachycardia
- Dizziness
- Gastrointestinal reflux disease

Adverse Events, Warnings

Both xanomeline and trospium target the muscarinic cholinergic system, albeit oppositional to each other. Xanomeline has a strong affinity to all 5 mAChRs but significantly agonizes only 2: the M1 and the M4. Its action at these 2 mAChRs in the brain is hypothesized to decrease presynaptic dopamine release in the circuits relevant to schizophrenia while not affecting the circuits involved in motor function or hormones. In the peripheral nervous system, xanomeline demonstrates the expected adverse effects of nausea, vomiting, diarrhea, hypersalivation, and sweating. Trospium, which poorly crosses the blood-brain barrier, has minimal effects on the central nervous system but mitigates the procholinergic adverse effects of xanomeline in the peripheral nervous system through its anticholinergic activity.

Not surprisingly, the common adverse events result from either procholinergic or anticholinergic activity, demonstrating the delicate balance that results from optimally dosing these 2 opposing mechanisms. **Table 1** lists the common adverse events of Cobenfy.

Xanomeline is extensively metabolized by the liver, and as a result, Cobenfy is contraindicated in the presence of moderate to severe hepatic impairment. CYP2D6 also metabolizes it, and the dose may need to be decreased in the presence of potent CYP2D6 inhibitors. Trospium, on the other hand, is minimally metabolized in the body, and approximately 90% of it is excreted unchanged in the urine. Hence Cobenfy is contraindicated in patients with urinary retention and is not recommended in patients with moderate to severe renal impairment. In these conditions, trospium serum levels are likely to increase, increasing the anticholinergic load. **Table 2** lists the contraindications for Cobenfy.

It is important to know about the presence of any other medication, prescribed or over the counter, that has anticholinergic activity. Benztropine, diphenhydramine, tricyclic antidepressants, clozapine, olanzapine, quetiapine, and chlorpromazine are some of the common medications our patients may be taking that have significant anticholinergic effects. Patients should be warned about the signs and symptoms of increased anticholinergic load.

TABLE 2. Contraindications of Cobenfy[6]

- Urinary retention
- Moderate or severe hepatic impairment
- Gastric retention
- History of hypersensitivity to Cobenfy or trospium chloride
- Untreated narrow-angle glaucoma

It is crucial to instruct the patient to take Cobenfy on an empty stomach, either 1 hour before or 2 hours after a meal. Food will decrease the absorption of trospium and can lead to increased procholinergic adverse events from xanomeline. With half-lives of 5 hours for xanomeline and 6 hours for trospium, Cobenfy is prescribed twice a day, commonly upon awakening and at bedtime, to maximize adherence.

Before starting Cobenfy, liver function tests and a bilirubin level should be checked, as well as baseline heart rate. These should be monitored during treatment as clinically indicated. Prior to prescribing Cobenfy, the entire PI should be read and understood.

The Pipeline

Cobenfy is the first in a novel class of medications that provide a muscarinic cholinergic mechanism of action for the treatment of individuals with schizophrenia. Two other drug candidates with similar mechanisms have recently completed phase 2 clinical trials. Emraclidine, an M4-selective positive allosteric modulator, is being evaluated in 2 placebo-controlled phase 2 trials in schizophrenia, EMPOWER-1 and EMPOWER-2, as well as in a 52-week open-label safety extension study, EMPOWER-3; trial results are expected to be released in late 2024. NBI-1117568 is a highly selective M4 agonist for the potential treatment of adults with schizophrenia and was evaluated in a recently completed phase 2 study. If FDA approved, these 2 molecules will help us understand the role of M1 agonism in the treatment of adults with schizophrenia, as this property is unique to Cobenfy.

Concluding Thoughts

The medication treatment of schizophrenia has finally diversified to a novel neurotransmitter system, the muscarinic cholinergic system, with the FDA approval of Cobenfy on September 26, 2024. Our clinical experience with Cobenfy over the next several years will educate us on how this mechanism compares with the traditional blockade of D2Rs. Prescribers should familiarize themselves with all aspects of Cobenfy before using it, as it is a novel mechanism with important properties that are very different from the D2R antagonists. It is exciting and refreshing that after 70 years of domination by D2R antagonists, we have a novel neurotransmitter target for the treatment of individuals with schizophrenia.

Dr Miller would like to disclose that he was on the Advisory Board for Karuna and is part of the Speakers' Bureau for Bristol Myers Squibb.

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From the Cover

Clinicians and Law Enforcement, a Partnership to Protect Mental Health

An Inside Look at Law Enforcement

Officer Jeff Futo (ret.) has been the Crisis Intervention Team (CIT) coordinator at Kent State University for 20 years and is credited with developing their award-winning CIT program. Futo is also former Portage County CIT Officer of the Year and Campus CIT Officer of the Year (Ohio). As the Ohio CIT coordinator and the law enforcement liaison for the Criminal Justice Coordinating Center of Excellence at Northeast Ohio Medical University in Rootstown, he provides guidance and technical assistance to CIT programs and coordinators across Ohio. Futo shared his experiences and law enforcement perspective with *Psychiatric Times*.

Law enforcement officers are often called to assist individuals experiencing a mental health crisis, and we would hope that capable officers respond. CIT programs play a critical role in preparing officers to do just that—and much more. One of the primary goals of CIT is to ensure the safety of everyone involved, including the individual in crisis. Within the CIT framework, other objectives include achieving positive outcomes, minimizing intrusiveness, and, when a crime is involved, diverting individuals to treatment alternatives when possible. When police officers are called to respond to a situation where no crime is involved, their role is to assist the individual through their crisis and seek the best possible outcome, which might involve hospitalization, a referral to services, or sometimes no action at all. Ongoing efforts are aimed at transforming local crisis response systems so that law enforcement is used as first responders only when there is an immediate threat to safety or a serious criminal issue.

Police officer training varies across the country and at different stages of an officer's career. It ranges from basic entry-level training focused on understanding mental illness, recognizing a person in crisis, and the officer's role, to advanced training, such as CIT training. CIT training for patrol officers is the most widely recognized and practiced crisis response training course. It typically consists of 40 hours of consecutive training days and is designed for officers assigned to patrol duties. The course is tailored to the specific responsibilities of patrol officers and is adapted to increase their understanding of their community's crisis response system (**Table**).

However, CIT training is just 1 component of the CIT model. CIT is designed not only to train officers but also to establish a framework that fosters community collaboration, improves communication, and creates a structured relationship between the criminal justice and behavioral health systems to manage those in crisis. CIT is not simply about responding to individuals in crisis; it is a comprehensive approach aimed at helping communities address the needs of individuals with severe and persistent mental illness, preventing their involvement with the criminal justice system whenever possible. Although the focus is often on police officer training, CIT goes far beyond that. Law enforcement agencies and leadership involved in CIT are expected to engage more deeply in community efforts, not just training. The issue is much more complex than just training officers—it is about building a collaborative, community-wide approach to crisis management.

Most police officers who attend CIT training are typical patrol officers. Although larger agencies may have the resources to create units focused solely on crisis response, most departments lack the funding or call volume to support such specialized units.

CIT is intended to be a specialized assignment for patrol officers who are both ready and willing to become crisis response specialists. This role, along with the required training and designation as a CIT officer, is not meant for all officers—only those who are prepared and motivated to take on this specific responsibility.

When law enforcement agencies promote having CIT officers, they are proclaiming to their communities a commitment to a specialized crisis response approach. In doing so, they should base their selection of officers for this role on a careful evaluation of whether an officer is able to handle the increased demands of crisis response. Officers demonstrate their readiness through their motivation, interest, field experience, and a positive performance record.

Unfortunately, this approach is not always the case. Many police departments attempt to train all officers in CIT without having policies in place to use them strategically. By placing officers who are not ready in CIT training and not having suitable policies, these agencies treat CIT as just another form of general training, rather than a specialized assignment. This undermines the integrity of CIT, as it capitalizes on the program's success and reputation without implementing it correctly, which can result in ineffective crisis response.

We hope that officers with a higher level of understanding about mental illness and individuals in crisis approach these types of incidents in a manner that is compassionate, patient, and focused on effective communication and positive outcomes. By applying the knowledge gained through specialized training, these officers are more prepared to assess situations, reduce tensions, and provide appropriate interventions, whether that involves linking people with behavioral health resources or ensuring their safety without the need to use force.

I wish mental health clinicians knew that

TABLE. CIT Training Topics

- Introduction to mental illness and persons in crisis (includes diagnoses and medications)
- Introduction to other behavioral health diagnoses/masquerading medical issues
- Substance use disorders/co-occurring disorders
- Suicidality
- Family and persons with lived experience perspective
- Cultural awareness (to include culturally informed response)
- Legal issues and applicable court decisions
- Local crisis response system (resources and navigation)
- Local court system (to include specialty dockets if applicable)
- Emergency hospitalization (to include court-ordered treatment)
- Interacting with persons in crisis (communication, de-escalation, etc)

CIT, crisis intervention team.

IMAGE BY NICOLE SLOCUM / MJH LIFE SCIENCES USING AI

officers must always prioritize safety first—for themselves, everyone around them, and the person in crisis. When responding to these situations, officers often enter unfamiliar environments where they must consider the presence of weapons and the unpredictable behavior that can accompany a mental health crisis. This level of uncertainty requires them to remain vigilant and cautious, even when a person appears cooperative and compliant.

Officers' primary role in these situations is to assess dangerousness and determine whether the individual needs to be taken into custody for a mental health evaluation. Balancing this responsibility can be challenging, as officers must evaluate immediate risks while also considering the person's civil rights and overall well-being. However, when a crime has been committed, the officer's options may be limited, and in some cases, arrest may be the only available course of action, even if the person is experiencing a mental health crisis.

Psychiatrists and mental health clinicians can improve crisis response within their communities by learning about the CIT model and the benefits of cross-systems collaboration. It is important for clinicians to understand that CIT is not solely focused on officer training; it encompasses a broader concept of managing behavioral health crises in a community through collaboration and creating actionable solutions.

Clinicians should begin by researching whether their local law enforcement agencies participate in CIT and to what extent. Engaging with steering committees, training, and other areas of the program can help build stronger ties between mental health professionals and law enforcement. If local police agencies are not part of a CIT program, clinicians can advocate for its implementation, emphasizing the importance of a coordinated response that addresses the needs of people experiencing crises in their community.

Fostering Collaboration With the Mental Health Community

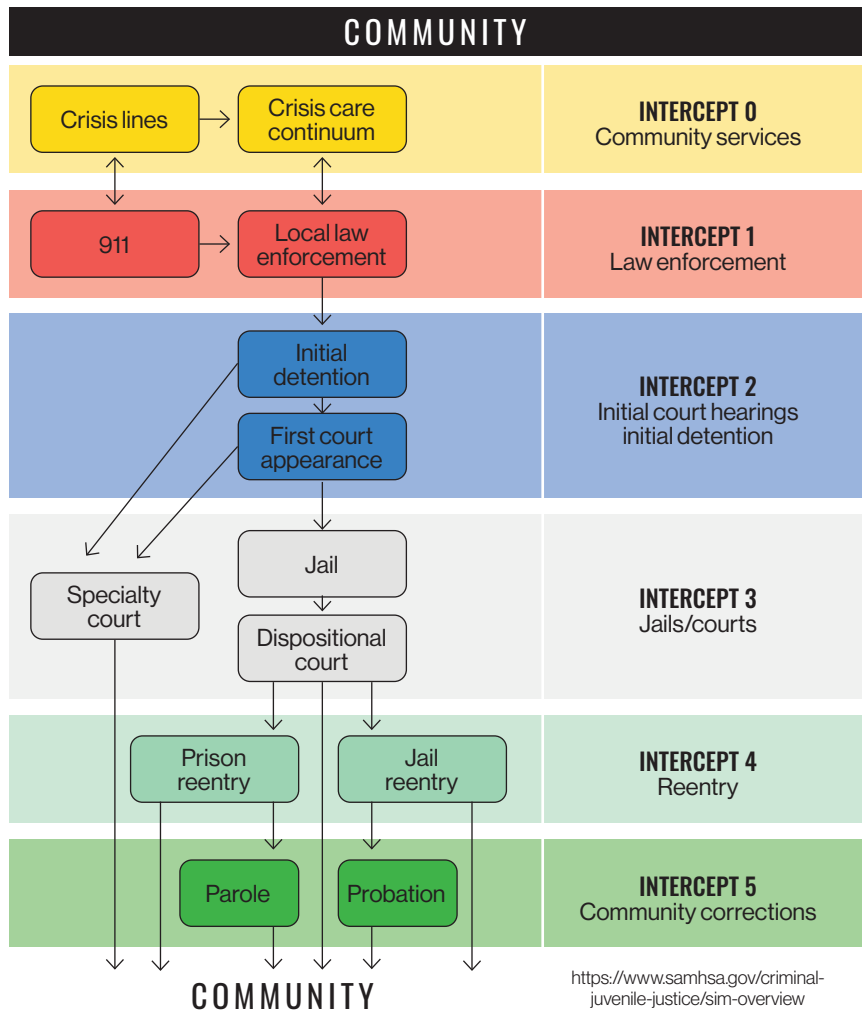
Mark R. Munetz, MD, professor and chair emeritus of psychiatry at Northeast Ohio Medical University (NEOMED), oversaw the Criminal Justice Coordinating Center of Excellence, the Ohio Program for Campus Safety and Mental Health, and the Best Practices in Schizophrenia Treatment Center, all at NEOMED. He is the codeveloper of the Sequential Intercept Model (SIM) and was a founding board member of CIT International.

Serious mental illness may first manifest itself in a crisis that comes to the attention of a law enforcement officer, and how such a crisis is handled can have enormous consequences for the individual experiencing the crisis and their families. For this reason, it is critical that law enforcement officers know how to recognize possible mental illness and have the skills necessary to safely manage the crisis. This is also the reason that every law enforcement agency should participate in its community's CIT program so that a CIT officer is dispatched or called for backup when a call is identified as possibly involving mental illness. If the officer's community does not have a CIT program, they should advocate for starting a program.

As medical director for the Summit County Alcohol, Drug Addiction and Mental Health Services (ADM) Board in the late 1990s, I became increasingly aware that a disproportionate number of the patients in our system with a serious mental illness (SMI) were being incarcerated in the county jail. We realized that many of these individuals would have been better served if there were diversion alternatives to offer the police. We learned about the CIT program that had started in Memphis in the late 1980s and the emergence of specialty mental health dockets (ie, mental health courts). Akron, Ohio, had the good fortune of having both a leader in the Akron Police Department open to learning about the CIT program and a municipal court judge who had been a drug court judge and was determined to start a mental health court. At the same time, the ADM board obtained a free consultation from what is now the Substance Abuse and Mental Health Services Administration Gather, Assess, Integrate, Network, and Stimulate (SAMHSA GAINS) Center to help us look at how best to address issues at the interface of the mental health and criminal justice systems. Patricia A. Griffin, PhD, was the consultant and, over time, we came to collaborate on a systematic approach to addressing the problem of the overrepresentation of individuals with SMI in the criminal justice system. Thanks to SAMHSA GAINS Center Director Hank Steadman, PhD, the SIM evolved (**Figure**).[3,4]

The SIM is a framework communities can use to systematically address the overrepresentation of individuals with SMI at all points in the criminal justice system. It takes advantage of the fact that people move through that system in a reasonably predictable linear fashion from arrest to an initial hearing, to jail awaiting trial or adjudication of competency to stand trial, to release or reentry, and finally to community supervision and support. At each point through this flow, opportunities exist to intercept the individual and divert them from the justice system to the treatment system where they can be better served. For communities without these programs, constituents can start anywhere; any and all movement toward addressing this very complex and challenging problem is worthwhile. Psychiatrists and other clinicians should take a leadership role and they should get comfortable talking with the various players in the justice system: police officers, sheriff deputies, prosecutors and defense attorneys, judges, jail administrators and corrections officers, and parole and probation officers. The earlier in the process we can move people to the treatment system the better, which is why I so strongly support the CIT model.

FIGURE. The Sequential Intercept Model[3,4]



https://www.samhsa.gov/criminal-juvenile-justice/sim-overview

The SIM has been put into practice by a process developed by Dr Griffin and her colleagues called Sequential Intercept Mapping. The facilitated process involves bringing individuals from multiple systems in a community together for a day-and-a-half workshop to review the services available in that community, as well as the gaps and challenges at each intercept. The group determines priorities and agrees on an initial action plan to begin addressing key gaps. This process has helped many communities begin to address the overrepresentation of individuals with SMI that makes sense for their community.

A key part of the SIM model, which sometimes has been overlooked, is what we called the ultimate intercept, likely the best way to address the complex problem. The ultimate intercept, which might now be called Intercept 0, is an accessible, effective trauma- and criminologically informed mental health system providing evidence-based and promising practices to individuals with SMI as early in the course of illness as possible. The intention is to prevent criminal justice system involvement altogether. Although a great deal of emphasis has been on the crisis response system, which is clearly important work, the ultimate intercept includes early identification and ongoing mental health (and substance use) treatment to avoid crises.

I recommend clinicians learn about and get involved with local CIT programs and efforts to develop co-responder or alternative to law enforcement response programs and provide support as needed. Although these programs are developed or in development in many communities, crisis responders find their biggest challenge is getting individuals linked to services once the crisis is resolved. The mental health system needs to offer treatment and support to avoid crises in the first place, as well as to engage or reengage individuals post crisis so they achieve and maintain stability.

Overall, this is an exciting time for communities that are developing partnerships between law enforcement, emergency medical services and fire departments, mental health, public health, family advocacy, and peers with lived experience of serious mental illness and substance use disorders. It will take time for communities to figure out what combination of specialized law enforcement response (eg, CIT), co-response, and alternative response models work best to safely resolve mental illness crises. The fact that serious mental disorders are relapsing and remitting illnesses means that some crises are inevitable. But the mental health and overall health care system must do all that it can to engage individuals as early on in the course of their illness as possible and provide ongoing treatment and support for as long as it is needed. In the meantime, our criminal justice partners have become our biggest advocates as we try to do the best we can to serve the population of individuals with SMI.

Concluding Thoughts

According to one estimate, 1997 individuals with mental illness have been killed by police officers since 2015, often as a result of calling for help.[2] Yet officers have a duty to protect others and should have the ability to defend themselves. The resulting crossroads represent an opportunity for law enforcement and psychiatric professionals to start and support programs like CIT and SIM in their communities.

Working models of CIT programs and SIM models can be seen everywhere from Johnson County, Kansas, to Lucas County, Ohio, where teams have developed electronic systems that allow cross-system communication about CIT encounters. Counties are able to track and analyze the prevalence, length of stay, and recidivism of individuals with mental illness in the local jail or identify overlapping clients of the different systems.[5] According to the Associated Press, 14 of the 20 most populous US cities have created civilian, alternative, or nonpolice response teams.[6] But the work has only just begun.

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From the Cover

Navigating the Intersection of Mental Health, Racism, and Law Enforcement

and then, to an encounter with the police.

The tragic death of Sonya Massey—who had a mental illness, per her family—serves as a stark reminder of the complex and often dangerous intersection of mental health crises, systemic racism, and law enforcement involvement. As mental health professionals, we are called to reflect deeply on this incident, not only to understand the failures that occurred but also to advocate for systemic changes that protect our most vulnerable patients.

Sonya Massey, a woman of color with serious mental illness (SMI), lost her life during an encounter with a police officer. This incident, like many others, underscores the urgent need to reassess how we, as a society, manage mental health crises, particularly among marginalized communities. This unfortunate situation brings to light the compounding vulnerabilities faced by individuals with SMI—vulnerabilities exacerbated by racial bias, stigma, and a lack of appropriate mental health resources. It is not lost on me that many of my patients refuse to call for help when a loved one is having a mental health emergency from fear of being perceived as a threat instead of a person in need of help, and subsequently killed.

Racism, both overt and implicit, continues to shape how law enforcement interacts with individuals from communities of color. Studies have shown that Black individuals are more likely to be perceived as threatening, even when unarmed, unclothed, or exhibiting symptoms of mental illness. In many instances, police officers lack the training to recognize and appropriately respond to psychiatric emergencies, leading to escalations that can turn deadly. The tragic outcome of Sonya Massey's case highlights how these biases can intersect disastrously with mental health crises.

Current policies guiding police involvement in mental health crises are woefully inadequate. Many communities lack crisis intervention teams (CITs) or equivalent programs that train officers to deescalate mental health situations safely. Even where such programs exist, they often fall short of protecting patients of color, reflecting broader systemic issues within law enforcement training and culture.

IMAGE BY NICOLE SLOCUM / MJH LIFE SCIENCES USING AI

Encourage families to create crisis plans tailored to the individual's needs, identifying who to call, what interventions work, and how to deescalate the situation.

The Role of the Media

Media coverage of such incidents often paints a narrative that reinforces stigma rather than enhancing understanding. Sensationalized portrayals of mental illness and criminality, particularly when the individual involved is Black or Brown, contribute to a cycle of fear and mistrust between marginalized communities and law enforcement. For patients of color with SMI, this coverage can exacerbate feelings of isolation, hopelessness, and fear of seeking help. This further perpetuates a dangerous cycle where crises are not handled by health care providers, but by the criminal justice system.

The number of publicized deaths at the hands of police officers has increased, justice is slow and often unfulfilling, and the near constant, repetitious news coverage leads to avoidable traumatization of those who are exposed to almost any news station.

The media's constant replay of violent encounters between police and individuals with mental illness can be deeply traumatizing, not just for patients but also for families, communities, and mental health professionals. It is crucial to protect your own mental health by setting boundaries around media consumption. Skip the traumatizing videos and limit exposure to distressing content that can contribute to vicarious trauma and burnout. As psychiatrists, we are skilled at advising others to protect their mental health. It is also vital in times of intense stress to prioritize our own self-care, seek support when needed, and remember that maintaining our well-being is essential to continue advocating for our patients.

Supporting Families

Families of those with SMI are often left with few options when their loved one is in crisis, leading them to call the police as a last resort. As psychiatrists, we must guide these families and provide them with resources and strategies to manage crises without involving law enforcement whenever possible. Key actions include:

Developing crisis plans: Encourage families to create crisis plans tailored to the individual's needs, identifying who to call, what interventions work, and how to deescalate the situation.

Educating about mental health crisis resources: Many communities offer mental health crisis services that do not involve the police, such as mobile crisis units or mental health hotlines. Familiarizing families with these resources can be lifesaving.

Advocating for policy change: Psychiatrists can play an essential role in advocating for systemic changes, such as expanding CIT programs, training officers in mental health awareness, and promoting alternatives to police involvement in psychiatric crises.

Providing psychoeducation: Equip families with knowledge about their loved one's condition, warning signs of escalating crises, and effective communication strategies to reduce the likelihood of violent encounters.

Call to Action for Mental Health

The tragedy of Sonya Massey's death calls for more than reflection; it demands action. As mental health professionals, we must advocate for change at the intersection of psychiatry, law enforcement, and social justice. This includes pushing for better training for police officers, expanding mental health resources, and dismantling the systemic racism that continues to plague our institutions.

Our role extends beyond the clinic walls—into our communities, policy discussions, and educational efforts. We must stand alongside our patients and their families, ensuring that mental health crises are met with care, not criminalization. Only then can we hope to prevent future tragedies like that of Sonya Massey.

Dr Bell is a quadruple board–certified and Harvard-trained public health specialist. She is a member of faculty for Harvard Medical School and works for Massachusetts General Hospital. ■

Unseen Agony

By Tiffani L. Bell Washington MD, MPH, FAPA

In the shadow of blue lights, a cry goes unheard,
A heart beats wild, but words are blurred.
The weight of stigma, the shroud of fear,
A call for help but danger is near.

With hands reaching out in desperate plea,
She was unseen in her agony.
A battle inside, misunderstood,
Missteps from the system that never could
See her as worthy, or worthy of care—
Another life lost, another despair.

let's honor her name with a vow to fight,
For justice, compassion, and doing what's right.
No one is invisible, no one denied,
In a world where all voices should be dignified.

In this land of quick-judged fate,
We stand too often, too far, too late.
May her memory urge us to rise and see,
The cost of a system where we all pay a fee
when fear feeds judgement and judgement brings death
where a call for help leads to more bereft
No more should fear and bias decide,
When lives are lost, and tears are cried.

Prophetic Disciple

(In memory of Sonya Massey)

By Frank A. Clark, MD

Wisdom (Sonya) predicted her
death and
the Land of Lincoln mourns
as to protect and to serve
murders an affect of angst
seeking peace and quiet mind
to discern reality
to rebuke unpleasant thoughts
to discover her telos.

Instead

A betrayer of kindness
reached boiling point of violence,
and foreboding became truth.

Bang, Bang, Bang!

Now

Descendants are motherless.
Mama and daddy are breathless.
Black and brown remain restless.
Reform remains actionless.

But

Wisdom prays from heaven
yearning for healing outcomes
offering hands of counsel
promoting agape love.

Dr Clark is an outpatient psychiatrist at Prisma Health-Upstate and clinical associate professor at the University of South Carolina School of Medicine Greenville. He served on the American Psychiatric Association's Presidential Task Force to Address Structural Racism Throughout Psychiatry, and he currently serves as the Diversity and Inclusion section editor and advisory board member for *Psychiatric Times*.

SPECIAL REPORT
FORENSIC PSYCHIATRY

Leveraging and Balancing Skills in a Big Data Era

James L. Knoll IV, MD

A challenge facing all of medicine is the big data explosion. Information now flows too fast and is too vast for individual psychiatrists to keep pace. In search of solutions and adaptation, I have suggested leveraging the skills of teamwork and technology.[1] Regardless, the rate of change in psychiatric knowledge must invariably lead to some narrowing of focus by individual forensic psychiatrists and researchers. Yet a narrowed focus should be balanced by avoiding mental health system fragmentation and isolation of services.[2] The field of forensic psychiatry continues to evolve and progress, balancing many roles such as providing reliable, objective assistance to the courts, providing quality psychiatric care to those in carceral settings, and conducting research that will pave the way for progress.

Dr Knoll is a professor of psychiatry and director of forensic psychiatry at SUNY Upstate Medical University in Syracuse, New York. He is also emeritus editor in chief of *Psychiatric Times* and clinical director of Central New York Psychiatric Center in Marcy.

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Issues in Civil Commitment: The Cases of Incarcerated Patients

Esther Schoenfeld, MD; Raina Aggarwal, MD; and Danielle B. Kushner, MD

A recent Manhattan Institute report estimated that 20% of jail and 15% of prison populations comprised adults with serious mental illnesses in the US in 2022 (**Figures 1** and **2**).[1] The same report estimated that the number of incarcerated adults with serious mental illness was greater than both the total population of homeless adults and the number of beds in mental health treatment facilities in the United States.

These unfortunate statistics have major implications for the systems in which we work and the individuals we are trying to treat. As psychiatrists working in forensic settings in New York City, we focus primarily on individuals with serious mental illness cycling among limited outpatient psychiatric services, homelessness, civil and forensic psychiatric hospitals, jails, and state prisons.

Patients intertwined with the justice system still require and are entitled to inpatient civil commitment when psychiatrically decompensated. The 1976 Supreme Court case, *Estelle v Gamble,* established that incarcerated individuals are entitled to adequate medical treatment as per the Eighth Amendment prohibiting *cruel and unusual punishment*, including "deliberate indifference" to symptoms.[2,3]

Yet despite these national standards and requirements for care, patients with criminal histories or current legal charges often face biases from health care personnel and officers when they are referred to or request mental health treatment or psychiatric hospitalization. Despite a high percentage of mental health issues and serious mental illness documented in this population, it is not uncommon for justice-involved individuals to receive additional labels and diagnoses such as malingering, personality disorders, or substance use disorders, which can potentially delay or limit the treatment needed for primary mood or psychotic disorders.

Types of psychiatric hospitalizations available for those incarcerated in the US include acute civil hospitalization, forensic hospitalization for competency restoration, and long-term hospitalization for those who require civil commitment upon release from custody. Individuals in custody may be transferred from jail or prison to an inpatient hospital if their psychiatric symptoms become too severe to manage in the carceral setting. Patients may be transferred to a forensic state hospital from jail or an inpatient hospital if the court questions their competency to stand trial, meaning their ability to understand charges or work with their lawyer.

After restoration of competency and symptom improvement, patients are transferred back to jail to resume legal proceedings on their case. Patients who are found not guilty by reason of insanity are typically committed to a forensic or civil hospital, depending upon their level of risk and treatment needs. The Prison Policy Initiative estimates that in 2024, of 1.9 million individuals currently incarcerated nationwide, 25,000 are civilly committed.[4]

FIGURE 1. Adults With Serious Mental Illnesses (SMI) in US Jails[1]

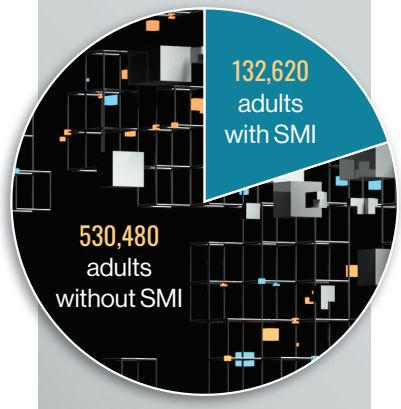
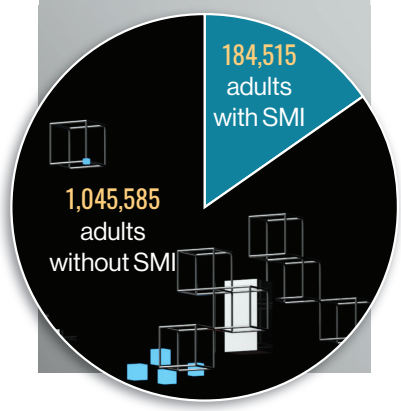


FIGURE 2. Adults With Serious Mental Illnesses (SMI) in US Prisons[1]



Inpatient Admission to Forensic Units

Generally, conditions in forensic psychiatry inpatient units are not significantly different from general psychiatry civil inpatient units. In forensic units, patients can leave their rooms, watch television, exercise, and have meals together. They are encouraged to participate in individual and group therapy during the day. Forensic hospitals may have correctional officers present or trained mental health security staff. Forensic inpatient units are regulated by national hospital standards for the use of restraints, seclusion, and intramuscular medications for acutely dangerous patients.

Forensic units often have stricter security policies for civilian staff and visitors than general hospitals, as they follow correctional security regulations. For example, in the jail inpatient units at Bellevue Hospital in New York City, civilian staff members must pass through metal detectors and are not permitted to bring mobile phones into the units. In these units, patient property restrictions are consistent with most general inpatient units, but there are additional restrictions to meet Department of Correction (DOC) standards on items such as clothing, personal toiletries, head coverings, and pillows. Substantial overlap exists between patients in forensic and civil units, as many of the patients treated in forensic units have spent time in civil units, and forensic patients may be transferred to civil units if their charges are dropped. This large number of individuals with chronic mental illnesses in the carceral system has been referred to as the "forensification of mental health" or "transinstitutionalization."[4]

The Systems

To illustrate the paths of patients with serious mental illness as they move through the complex interface between the legal and the mental health system, we will share the story of "Aaron," a man with schizophrenia who is arrested as a result of threatening behavior. If the police initially detect signs of mental illness, they may bring Aaron to a local emergency department (ED) for evaluation prior to any legal proceedings. If the officers involved are not concerned about acute mental illness, they will most likely bring him immediately to the precinct and then to the courthouse for booking and arraignment. Then, depending on the charge and the bail the judge sets, he will be released or transferred to jail.

If Aaron is retained in custody and transferred to jail, he will receive a medical and mental health evaluation to determine the level of medical and mental health services required. Patients with more acute psychiatric symptoms may be housed in mental health units if available, which typically involve more frequent clinical encounters by therapists and psychiatric providers.

However, if Aaron is admitted to the hospital from the psychiatric ED after being brought in by police, or his mental illness symptoms become so severe that he cannot be adequately treated in a jail setting, most jurisdictions will transfer him to an inpatient forensic psychiatry unit while he remains in the DOC's custody. If Aaron no longer meets the criteria for inpatient admission and his charges are not resolved, he will be transferred back to jail.

Restoration of Competency

In addition to acute psychiatric hospitalization, hospitalization for restoration of competency to stand trial is another legal avenue potentially leading to psychiatric hospitalization in the forensic setting. If Aaron is charged with a felony and is found incompetent to stand trial, he will typically be transferred to a state forensic psychiatric facility (such as Kirby Forensic Psychiatric Center, Mid-Hudson Forensic Psychiatric Center, or Central New York Psychiatric Center in the case of New York) to permit him to proceed with his legal case.[5] This usually involves both treatment with psychiatric medications and education about the legal process. Currently, a competency crisis exists across the US, in which court orders for competency-to-stand-trial evaluations and the need for restoration services have been increasing faster than states can keep up with.[6] If Aaron is found competent to proceed in his case, he will be transferred back to jail to proceed with his legal case. When back in jail, if acute symptoms reemerge, he may be transferred back to the hospital for acute hospitalization, restarting the treatment cycle and likely extending the length of time incarcerated.

Concluding Thoughts

The paths of individuals with severe mental illness through the legal and mental health systems are often complex and fraught with challenges. The frequent movement of a severely mentally ill patient, such as Aaron, between jail, acute inpatient facilities, and state forensic hospitals can limit continuity of care. However, as shown through the sequential intercept model,[4] there are several points along this pathway for a justice-involved patient to be intercepted and diverted to mental health treatment.

As forensic psychiatrists, we are passionate about providing adequate and quality treatment to this underserved and neglected population. Yet ultimately, arrest or legal charges should not be the primary avenue for our patients to have access to necessary psychiatric services or receive quality care.

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Violence Risk Assessment

Using the Oxford Mental Illness and Violence Tool

Seena Fazel, MBChB, MD, FRCPsych; and Giulio Scola

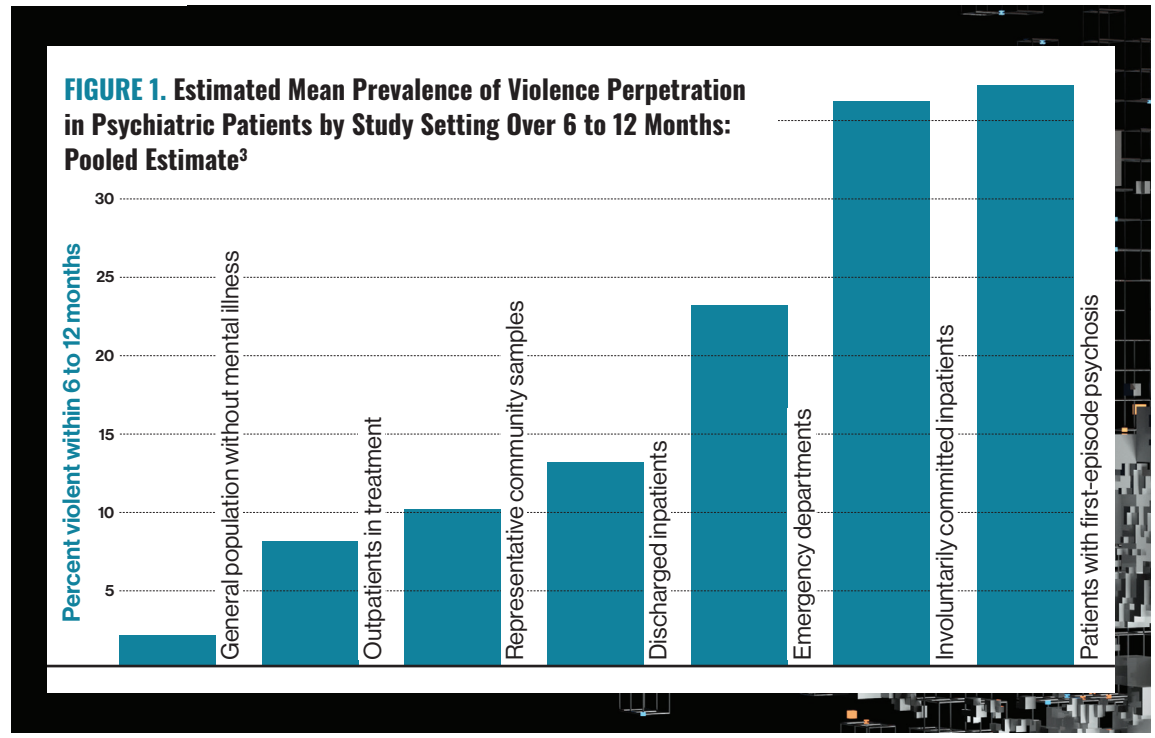

FIGURE 1. Estimated Mean Prevalence of Violence Perpetration in Psychiatric Patients by Study Setting Over 6 to 12 Months: Pooled Estimate[3]

Clinical psychiatry is shifting toward precision medicine. Until now, one-size-fits-all strategies have had a patchy success rate, leaving many patients with delayed diagnoses, uncertainty about their care, and suboptimal treatment. By harnessing the opportunities provided by big data, new research is investigating how diagnosis, prognosis, and treatment can be personalized.

In terms of prognosis, clinical prediction models can provide individual-level risk estimates for important future outcomes.[1] These models statistically combine data on risk factors from large data sets to assess the risks of serious adverse outcomes for mental health, such as suicidal behaviors, violence toward others, and severe relapses in mental state. These can be translated into risk assessment tools, which allow clinicians to input information on individual factors, which can be used to calculate a risk for that individual based on the underlying statistical model. Such tools based on high-quality prognostic models can complement clinical assessment and assist clinicians in making more evidence-based decisions, particularly early on in the patient pathway. This is especially important for estimating the risk of perpetration of violence and criminality, which is increased in those with severe mental illness and affects a minority of patients.

For example, individuals with schizophrenia spectrum disorders have a risk that is 2 to 5 times higher than the general population (including in studies with careful adjustment for confounders, in individuals without diagnosed comorbidities, and in sibling comparisons that inherently account for shared background familial factors such as early environment).[2] This risk increases further with comorbid substance misuse,[2] and absolute rates vary according to illness stage and setting.[3] Moreover, a review of the prevalence of violent outcomes in psychiatric patients found some patient groups with elevated rates. This included around a fifth of individuals who present in psychiatric emergency settings in the next 12 months and more than one-third in involuntarily committed patients and patients with first-episode psychosis, also over the subsequent 12 months (**Figure 1**).[3] More recent work in first-episode psychosis has also found that around 1 in 10 individuals have violent outcomes that lead to police contact in the year after referral to mental health services.[4]

By harnessing big data, new research is investigating how diagnosis, prognosis, and treatment can be personalized.

These observational studies' findings highlight the need for accurate and validated violence prediction tools in this population, which, if linked to effective interventions, can assist in reducing future risks. Although some risk assessment approaches and instruments exist, such as the Historical Clinical Risk Management-20, they are mainly used in forensic mental health and may have limitations if used in general psychiatry. One significant limitation is that they are often overly time-consuming and costly. For example, some of these older risk assessment approaches, particularly those described as structured clinical judgment tools, take up to 16 hours to complete,[5] making them impractical for clinical use. Another shortcoming is that they do not provide probability scores for individuals but only categorize them into broad groups of low, medium, and high risk. However, classification (using cutoffs) is not a good aim when models are relatively accurate—here, you will want to know probabilities. This is exactly how the Framingham Risk Score (or, for that matter, the weather) is communicated—not in a categorical way of yes/no but in relation to probabilities, which allows individuals to decide how to act depending on the decision to be made and its implications (eg, changing diet or adding a statin or not). Additionally, structured clinical judgment tools typically show poor predictive accuracy in real-world clinical settings compared with research settings, raising concerns about their everyday clinical use. This is likely because these tools were developed using small sample sizes, focused on a specific patient population (eg, forensic patients), and were not externally tested in real-world settings different from the one in which they were developed.[6,7]

Therefore, novel tools are required to assist clinicians in making well-informed decisions, facilitating early interventions, and ensuring consistency in risk assessment within and across clinical teams. A new generation of tools that provide probability scores have been developed using population-based registers that cover a wide range of patient populations and provide extensive information about them over time.

One of these tools, using data from more than 75,000 individuals with severe mental illness in Sweden, is the Oxford Mental Illness and Violence (OxMIV) tool, which aims to assist clinicians in assessing the risk of violence within 12 months of assessment among individuals with schizophrenia spectrum and bipolar disorders. The tool was built with 16 risk factors, including demographic, criminal history, and clinical variables, such as age, sex at birth, previous violent crime, past drug or alcohol misuse, and recent antipsychotic treatment.[8] The OxMIV tool has been validated and updated across diverse patient populations in England, Germany, and the Netherlands,[9-11] demonstrating applicability in different clinical settings. Clinicians can easily

access its user-friendly interface online, making it simple to integrate into practice (**Figure 2**).

For example, when a clinician assesses the risk of violence in an individual with schizophrenia spectrum disorders or bipolar disorder, they can quickly enter all necessary data into the OxMIV calculator and estimate the individual's risk level in percentages. Risk estimates become less accurate and clinically useful at very high levels; therefore, they are presented at a maximum of 20%. Importantly, OxMIV allows unknown values for some risk factors (providing a range of predicted risks).

Integrating OxMIV and similar novel tools into clinical practice can complement clinical assessment and improve clinician confidence in making early personalized decisions to improve patient care, such as:

- Initiating early discussions on strategies to reduce medium- and longer-term violence risk with patients and their families.
- Collaborating with multidisciplinary teams to identify appropriate next steps for more detailed assessment and care.
- Targeting modifiable risk factors, such as substance misuse, nonadherence, and/or effectiveness of medication, impulsivity, unstable living conditions, and disengagement from services.
- Developing crisis plans with caregivers, family, and staff to efficiently manage emergencies.
- Collaborating with other services, including police, probation, substance misuse, housing, and social services.[12]

FIGURE 2. OxMIV's Web-Based Interface

As psychiatry embraces precision medicine, the use of validated and scalable risk prediction tools can potentially improve mental health outcomes. Integrating these tools into clinical practice can assist violence risk assessment and allow for more personalized decisions early on in the treatment process, benefiting patients and their families while improving safety and well-being.

Dr Fazel is a professor of forensic psychiatry at the University of Oxford in England. **Mr Scola** is a postdoctoral research associate (pending PhD viva) in psychiatric epidemiology at the University of Oxford in England.

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Understanding and Evaluating Conspiracy Theories
A Primer for the General and Forensic Psychiatrist

Brian Holoyda, MD, MPH, MBA

CASE VIGNETTE "Mr Parker" is a 20-year-old man with no psychiatric history. He was arrested for trespassing on the grounds of a local Social Security Administration facility. He was caught while attempting to break in via the front entrance in the middle of the night. When questioned by law enforcement, he stated that he was there to find documents that list the names of local government officials who are engaged in the sexual abuse of children. He went on to state that these officials have been harvesting adrenochrome from the blood of a group of children, who they are consuming to maintain their vitality. He reported that he learned the documents implicating the local government officials were stored at the local Social Security Administration building after reading about it on a Facebook group for "local child advocates."

Upon evaluation at the county jail, Mr Parker spoke at length about his engagement with online groups that ascribe child sexual abuse and occult practices to local elected politicians. Concerned by the recent onset of a firm belief in outlandish, persecutory themes, the psychiatrist at the jail felt that Mr Parker may be experiencing first-episode psychosis and recommended initiation of an antipsychotic medication. Mr Parker staunchly declined any treatment. After refusing to engage with his court-appointed counsel, Mr Parker's defense attorney raised doubt regarding Mr Parker's competency to stand trial. You, an independent psychiatrist, are appointed to evaluate his mental condition, his understanding of the legal process, and his capacity to work with an attorney.

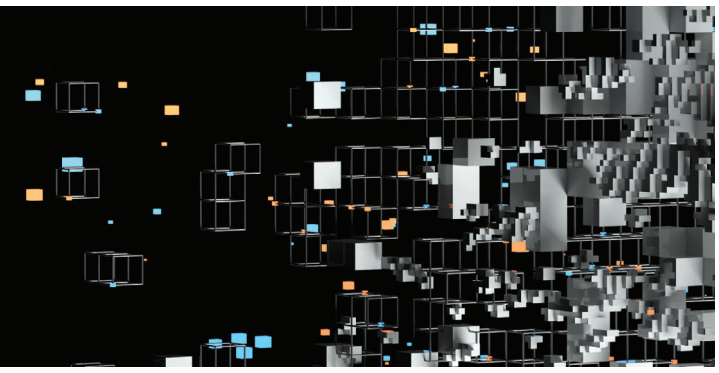
Introduction

Conspiracy theories are a common phenomenon. More than half of adults in the US espouse belief in some form of political conspiracy.[1] In the age of social media, it is easier than ever for like-minded individuals to congregate online to discuss and share conspiracy theories. As with other forms of mass shared belief, conspiracy theories can spill over into violent action. Psychiatrists, including forensic psychiatrists, may be called on to evaluate and treat individuals who espouse conspiracy theories; therefore, it is necessary to understand conspiracy theories and how they differ from delusions. This article defines the concept of the conspiracy theory, differentiates it from psychosis and other types of delusion-like beliefs, and offers recommendations regarding how to explore an individual's beliefs.

The Basics

A conspiracy theory is a set of propositions regarding the alleged collusion of various individuals to achieve a malev-

It is necessary for psychiatrists treating or forensically evaluating individuals with conspiracy theories to be able to correctly identify different forms of belief.



olent aim. Conspiracy theories are inherently unverified and unverifiable, as they are typically based on spurious or fantastically embellished facts. Conspiracy theories rebut practical and coherent explanations for happenings in the world in favor of a more bombastic and secretive narrative.[2] Common elements of conspiracy theories include the following[3,4]:

- A pattern or causal connection between people, objects, or events
- A group of alleged conspirators
- Agency or intentionality between conspirators
- Malevolent goals
- Secrecy of all involved

Conspiracy theories are common and develop around phenomena ranging from the banal to the salacious. An online survey of more than 1000 Americans regarding medical conspiracy theories found that 37% believe that the US Food and Drug Administration deliberately prevents the public from accessing natural cures for cancer and other diseases due to the influence of drug companies. Additionally, 20% believe that physicians and the US government want to vaccinate children despite knowing that vaccines cause autism and other psychological disorders.[5] In a telephone poll of more than 1000 randomly selected American adults, more than 36% stated that it was at least "somewhat likely" that the federal government assisted in the September 11, 2001, terrorist attacks or took no action to prevent them in order to force the United States to go to war in the Middle East.[6]

Who believes in conspiracy theories? Data are limited, but their widespread acceptance suggests that most individuals are susceptible to adopting conspiracy theories.[7,8] It is also probable that conspiracy theories that dovetail with individuals' preexisting biases, political leanings, or cultural backgrounds may be more appealing. Individuals were more likely to report a belief in 9/11 conspiracy theories if they were racial minorities, younger, female, and less educated, and if they read blogs.[6] The phenomenon of conspiracy theories is not unique to specific political parties, ideologies, or movements, though political figures and groups may co-opt and spread conspiracy theories for their own ends. For example, QAnon is a conspiracy theory group associated with former US president Donald Trump's brand of right-wing populism, in no small part because he promoted QAnon content at least 265 times on X (formerly Twitter) between October 2017 and October 2019.[9] Alternatively, left-leaning media pushed the conspiracy theory that Trump and his staff colluded with Russia in the 2016 presidential election on the basis of the Steele dossier, a collection of opposition research commissioned by Hillary Clinton's campaign that consisted of falsehoods.[10]

The Differential Diagnosis

Table 1 offers a differential diagnosis for individuals presenting with false beliefs. Depending on the content of a conspiracy theory and the degree to which an individual claims to believe it, one may mistakenly identify the individual as delusional. Individuals who believe in conspiracy theories are not delusional, however. The *DSM-5-TR* notes that "[t]he distinction between a delusion and [a] strongly held idea is sometimes difficult to determine and depends in part on the degree of conviction with which the belief is held despite clear or reasonable contradictory evidence regarding its veracity," and it indicates that "[s]ome religious and supernatural beliefs…may be viewed as bizarre and possibly delusional in some cultural contexts but [may] be generally accepted in others."[11] The same is true of conspiracy theories. Belief in conspiracy theories is not delusional because their existence depends on a community or subculture of individuals who share the belief and because individuals may alter their beliefs when presented with evidence to the contrary.

Belief in conspiracy theories is more accurately described as a form of delusion-like beliefs (DLBs). In one article, Joseph M. Pierre, MD, describes DLBs as beliefs that "slip through the cracks of symptom definitions and drift into the gray area between pathological and normal beliefs."[12] Other examples of DLBs include religious beliefs, cult beliefs, and the beliefs of sovereign citizen groups that consist of political extremists who reject governmental authority. The conflation of QAnon with a cult in popular media outlets highlights the poor definitional boundaries of DLBs and the confusion with which the lay press addresses such phenomena.

TABLE 1. Differential Diagnosis of Belief in Conspiracy Theories

Type of belief	Description
Delusion	A pathological fixed, false belief indicative of a psychotic condition like schizophrenia, mania, psychotic depression, or delusional disorder.
Delusion-like belief	A belief that does not meet the definition of a delusion due to large-scale adoption or insufficient evidence that it is fixed.
Conspiracy theory	A set of propositions alleging a coordinated effort of a group of conspirators to secretly achieve a malevolent aim.
Religious faith	Belief in the teachings of a mainstream religion that are inconsistent with modern scientific knowledge.
Cult belief	Religious belief of a small, cohesive collection of individuals who share behavioral mores and follow a charismatic leader.
Sovereign citizen belief	Political belief associated with antigovernment extremists who believe they are separate from the nation in which they reside.

Assessing Conspiracy Theories

When assessing a patient or forensic evaluee who presents with false beliefs, it is necessary to understand the etiology of the beliefs so you can develop an appropriate treatment plan or inform the attorney or court about the impact of the individual's beliefs on the relevant legal matter. To correctly identify the etiology of the person's beliefs, you should conduct a belief history, as summarized in **Table 2**.[2] Individuals espousing belief in a conspiracy theory should be able to identify when and where they first learned of it. In the case of QAnon and other political conspiracy theories, you should expect the person to identify media sources, online forums, or discussion

TABLE 2. The Belief History[2]

Component	Questions
Contact with conspiracy theory	When and where did you first encounter this set of ideas? Did you believe the propositions at first? Did you have family or friends who believed in the propositions before you did?
Acceptance of conspiracy theory	When did you first realize that the propositions were true? What convinced you of their truth?
Engagement with conspiracy theory	How frequently do you read or watch videos about this topic? Do you communicate with other individuals online or in person regarding your beliefs?
Behaviors related to conspiracy theory	Have you met like-minded believers offline? Have you generated posts or videos about this topic? Have you protested because of your beliefs? Have you engaged in criminal or violent behavior because of your beliefs? What is the likelihood that you will engage in violent or criminal behavior in the future because of your belief?

boards as the source of their knowledge. This contrasts with religions, cults, and sovereign citizen groups where belief is transmitted primarily via in-person encounters with other members. Once you have established the origin of the person's beliefs, you should ask about the process by which they came to view the conspiracy theory's propositions as true, engaged further with like-minded individuals, and, if relevant, began to act in response to their beliefs.

Evidence of psychopathology can also aid in understanding a person's false beliefs. Individuals with schizophrenia, mania, and psychotic depression should demonstrate additional evidence of illness that clarifies the etiology of their beliefs. In cases of suspected delusional disorder, collateral information from family members or friends may assist in clarifying the individual's belief history. Evidence that the individual viewed fringe political news outlets and online forums before developing their belief would suggest against a delusional disorder. A community of like-minded individuals supports the finding of a DLB rather than a delusion. The evaluator should be aware that individuals with genuine mental illness may also believe in conspiracy theories or hold DLBs, in which case an understanding of the basic tenets of current conspiracy theories, fringe political ideologies, and creeds of religious sects may help to clarify what aspects of the person's belief system are pathological.

CASE REVISITED Armed with a wealth of knowledge regarding QAnon, you meet with Mr Parker and realize that his beliefs stem from this broad-ranging conspiracy theory. He maintained that high-level government officials were part of a pedophilic cabal. However, he demonstrated no evidence of a psychotic disorder, such as negative symptoms, hallucinations, disorganized thinking, or mood disturbance. His mother confirmed that he had no history of treatment for mental illness. Collateral information from his mother indicates that Mr Parker only began espousing belief in these propositions within the past 2 months and that he has not demonstrated any functional impairments in his employment or relationships with family members. You rightly realize that Mr Parker does not have a mental illness and therefore has the capacity to understand his legal proceedings and to work with his attorney in his defense, whether he chooses to do so or not.

Concluding Thoughts

Conspiracy theories are a common cognitive phenomenon. Similar to religious faith, cult beliefs, and extremist political ideologies, the propositions of conspiracy theories appeal to human minds seeking special knowledge and a unique understanding of events in the world. Like all forms of belief—true, delusion-like, or pathological—conspiracy theories can lead individuals to engage in criminal and violent behaviors. It is necessary for psychiatrists treating or forensically evaluating individuals with conspiracy theories to be able to correctly identify different forms of belief. By doing so, one can clarify the individual's treatment needs and the relevance of their beliefs to the legal question posed.

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Poetry of the Times

Nursing Home Doctors

Richard M. Berlin, MD

After each lap around the circular hall
the aides smile, *Hello Doctor!*
and he nods at their greetings
like a general inspecting his troops.
Dressed in the frayed polyester suit
I saw him wear on hospital rounds,
he cradles a baby-blue chart and stops
at random doorways to review his records.
I say *Good Morning!* and he studies me
in my white coat, like skin lesion
he has seen only once in a textbook.
And I lead him to the door with a shingle
posted outside, his old oak desk
laid out with a blotter, fountain pen
and a spoon for apple sauce he eats
while he writes long, illegible reports,
falling asleep hours past midnight,
just as he did during forty years of practice,
in the arms of his worn-out leather chair.

Dr Berlin has been writing a poem about his experience of being a doctor every month for the past 26 years in *Psychiatric Times* in a column called "Poetry of the Times." He is instructor in psychiatry, University of Massachusetts Medical School, Worcester, Massachusetts. His latest book is *Tender Fences*. ■

Psychiatric Times
Clinical Case
COLLECTIVE

Innovative Approaches in Depression Treatment

Lessons From the Front Lines

Heidi Anne Duerr, MPH

Despite advances in understanding depression, many patients experience inadequate responses to treatment. In the recent custom *Psychiatric Times* video program "Expanding Possibilities in MDD: Exploring Rapid-Acting Therapeutic Options," Gus Alva, MD, DFAPA; Carmen Kosicek, MSN, PMHNP-BC; and Roger S. McIntyre, MD, FRCPC, explored the ongoing challenges and emerging strategies for optimizing care and navigating the complexities of major depressive disorder (MDD).

Exploring a Case Study: Steven's Journey

The panel had an opportunity to talk with Steven, a 45-year-old man with a history of treatment-resistant depression, to explore the importance of patient-centered care and of adopting new therapeutic options.

Despite having undergone multiple trials of selective serotonin reuptake inhibitors, serotonin–norepinephrine reuptake inhibitors, antipsychotic augmentation, and neuromodulation, Steven continued to experience severe symptoms, including anhedonia and emotional blunting.

Steven eventually made his way to Kosicek, who examined his history, including what did not work, and emphasized the need for a strategy shift. "It's not OK just to keep circling the wagon of the same medications, the same mechanism of action," she said. When standard treatments fall short, exploring alternative options is essential, she added.

Kosicek transitioned Steven to a combination of bupropion mixed with dextromethorphan. This agent targets N-methyl-D-aspartate receptors, which regulate glutamate, instead of primarily targeting the monoamine neurotransmitters serotonin, dopamine, and norepinephrine like his previous medication regimens. The strategy marked a turning point in his recovery trajectory.

The Importance of New Mechanisms of Action

The panel agreed that looking to novel mechanisms of action is essential in cases of difficult to treat depression. "We need new mechanisms, or at least the ability to target new mechanisms that are not the same old, same old," McIntyre said. "I don't want the same therapeutics with all the same limitations. I want treatments that work especially rapidly."

When Kosicek made that switch, Steven quickly noticed the effects. "It was like a breath of fresh air," Steven told the panel. "I remember we made that switch, and within a very short span of time, several days, I noticed a huge difference.... It was just like, 'I'm better'; like I could tell. It was noticeable enough that I could see that something actually was working." Steven said even his mom remarked, "I have my Steven back."

When Steven's progress stagnated, Kosicek integrated esketamine into the treatment strategy. Steven agreed that the addition built on the progress he was making, and it helped him to feel more like himself. Over time, the improvement was beyond symptom reduction. It allowed him to reconnect with his family and reclaim his daily routines—transformations that are essential in the broader context of recovery.

In discussing the novel approaches used in Steven's case, the panel agreed the rapid-acting effects of the new medications were crucial to his progress, especially because some medications can take weeks for a noticeable effect.

"I just can't believe anywhere else in medicine people think this way," McIntyre said. "You know, if you had a migraine headache, and one therapeutic worked rapidly and one took 6 weeks to work, which one would you use? It's laughable."

The need for rapid action is especially important for patients with difficult-to-treat depression. "By the time the patients have come to me with multiple trials, we really need a swift onset of action," Kosicek added.

Personalized Care: Listening to the Patient

Throughout the conversation, the panelists underscored the value of patient-centered care in achieving better outcomes. Kosicek emphasized that effective care requires a deep understanding of each individual's story, and that clinicians must go beyond general prescribing approaches to truly address the needs of their patients.

McIntyre strives to have his patients talk about "feeling joy, looking forward, having some forecast of future to look forward to, and a sense of well-being." Again, he pointed to novel agents that can help. "That's been the advantage of the glutamatergic modulators—that we, in fact, can really meaningfully affect that dimension and do it rapidly."

Dr Alva is the medical director of ATP Clinical Research in Costa Mesa, California, and an associate professor in the Department of Psychiatry and Human Behavior at the University of California, Irvine.

Ms Kosicek is the CEO and founder and a psychiatric mental health nurse practitioner at Visionary Psychiatry in Portland, Oregon.

Dr McIntyre is a professor of psychiatry and pharmacology at the University of Toronto, and head of the Mood Disorders Psychopharmacology Unit at the University Health Network in Toronto, Canada.

To watch this Clinical Case Collective program, visit psychiatrictimes.com/clinical-case-collective/expanding-possibilities-in-mdd-exploring-rapid-acting-therapeutic-options

Kosicek highlighted how patient-centered care involves truly listening to the patient's experiences and being willing to adapt treatment plans based on their feedback. "Treat your patients like how you'd want to treat your family," she explained, advocating a compassionate, individualized approach. For Steven, this meant considering his past struggles with medication adverse effects and focusing on a treatment that aligned with his personal goals and lifestyle. By shifting from a medication-first approach to a holistic view of his needs, Kosicek was able to tailor a regimen that brought significant improvements to Steven's daily functioning and social interactions.

Embracing Best Practices: Moving Beyond the Status Quo

"It's estimated that only about 20% of people living with depression are receiving treatments considered remotely best practices," McIntyre shared with the panel. "We have a gap with respect to implementing best practices. And we have this incredible inertia, where too often and unnecessarily people are living with depression, not doing as well as they want and could be, but are not having interventions changed at the point of care."

The panel referred to Steven's success story, which came to fruition as a result of Kosicek's willingness to try new treatments and adjust as needed, rather than persisting with ineffective options. She described her approach as "truly taking what you've learned into practice" and acting as the patient's advocate, including tackling the prior authorizations.

The other issue, the panel noted, is the time it takes for the field to catch up with new research and new treatment options. "As a practicing clinician, I know that the guidelines are there, but I also am very aware that it takes a long time for guidelines to change," Kosicek commented. Instead, she looks at each patient and considers the different mechanisms of action to find the best course forward for each patient.

"It kind of reminds me of what our aspirations are for the future," McIntyre added. "I mean, aspirationally, we want to achieve what's called precision medicine, where we can choose our treatment modalities for the individual patient and where we are providing care based on some objective biomarker or biosignature."

Ultimately, learning about and integrating novel agents, alongside evidence-based standards, ensures a more comprehensive and responsive approach to care, the panel agreed.

The Role of Holistic Care in Depression Treatment

The experts emphasized the role of holistic care in managing complex cases. "It's not a bad idea to include recommendations regarding hydration, nutrition, exercise, and sleep," Alva suggested. "Those are things that seem so mundane. But, you know, people gloss over that, and it's really important. Oftentimes, before I even begin any discussions about any type of intervention, I'll make sure to address each one of those particular points with patients."

Kosicek always looks for underlying medical issues as well as nutritional lab results (ie, vitamin D) and homocysteine levels as part of a more holistic approach to better understanding the issues.

"It's been said by some authors that nature vs nurture is dead, and I agree. It's clearly both when it comes to holistically understanding onset, propagation, and treatment of depression," McIntyre added. To that end, he asks patients about their employment status, education level, and the like, noting, "It alerts us to the economic, the social, and the contextual determinants of health."

Alva mentioned the latest research findings on loneliness, and how that can be an important factor.

"I would never have envisaged that, along with psychotherapy, pharmacotherapy, and neurostimulation, social prescribing would become part of my prescription pad," McIntyre commented.

Conclusion: Moving Forward With Hope

Although the panel agreed that depression continues to be challenging, the future holds promise, with new agents and innovative ways of treating the disorder. "The evidence is unequivocal that when people get on the right treatment modalities as part of their care plan, people, in fact, can get their life back in all the ways that they strive for," McIntyre said. "So I think there is a very hopeful story with depression."

"It's so wonderful to see the perseverance, the trying the next step, and trying the next steps," he added. "There's not really a surplus of hope out there. And so we have got to have hope. It really is what drives us. And, I think, having this innovation is not just academically tantalizing and all that good stuff, but it's hopeful. At the end of the day, I think that's what's so critical to what we're providing for patients."

KEY TAKEAWAYS

Embrace novel mechanisms.
Sometimes it is necessary to look beyond traditional serotonin-based treatments. Exploring glutamatergic agents and other new mechanisms can offer hope to patients who have not seen sustained, meaningful, and substantial improvement as a result of standard therapies.

Personalization is crucial.
Effective care requires a thorough understanding of each patient's unique needs and context. Incorporating lifestyle modifications and psychosocial support alongside medication can lead to better outcomes.

Adopt adaptability practices.
It is important to reflect and adapt approaches when initial treatments do not yield the desired outcome for patients. This may involve switching medication classes and exploring newer therapies.

Holistic care matters.
Addressing sleep, nutrition, and social support is critical for comprehensive depression care.

Foster hope for the future.
New therapeutic options offer a path forward for patients who have not found success with more traditional agents. Remain positive and supportive as patients navigate the ups and downs of treatment.

Translating Research Into Practice

Rajesh R. Tampi, MD, MS, DFAPA, DFAAGP, Column Editor

A monthly column dedicated to reviewing the literature and sharing clinical implications.

Exploring the Antisuicidal Effects of Lithium

Jesse Woo, MD; Haley Schuster, MD; Mark Mullen, MD; and Rajesh R. Tampi, MD, MS, DFAPA, DFAAGP

There is some controversy regarding lithium's ability to prevent suicide. Given the challenges related to suicide research, specifically that rates of death by suicide are so low that a very large sample size is needed to achieve statistical significance, it is difficult to measure suicide in a single study. Relatively small sample sizes limited previous systematic reviews. This column reviews a systematic review and meta-analysis of 7 randomized controlled trials (RCTs), including a recent RCT that enrolled over 500 participants. The aim was to provide clarity on lithium's efficacy in suicide prevention.

The Study

Riblet NB, Shiner B, Young-Xu Y, Watts BV. Lithium in the prevention of suicide in adults: systematic review and meta-analysis of clinical trials. *BJPsych Open*. 2022;8(6):e199.

Study Funding

This study was funded by the Veterans Affairs National Center for Patient Safety Center of Inquiry Program in Ann Arbor, Michigan.

Study Objectives

To assess the efficacy of lithium in preventing suicide.

Methodology

This study was a systematic review and meta-analysis of RCTs exploring the effect of lithium on suicide. Systematic review followed Cochrane guidelines, and the investigators searched the literature from January 1, 2015, to November 30, 2021, using 5 databases: MEDLINE (via Ovid), Excerpta Medica Database (Embase), Cumulative Index to Nursing and Allied Health Literature (CINAHL), the Cochrane Central Register of Controlled Trials (CENTRAL), and PsycInfo. Additionally, references of the included studies were reviewed, and ClinicalTrials.gov was searched for additional studies.

Eligibility criteria included RCTs with adults older than 18 years assigned to lithium or control (placebo, usual care, or waitlist) and reporting death by suicide as a primary or secondary outcome. There were no restrictions on language. Studies were included regardless of suicide events and were not limited by diagnostic condition.

The efficacy of lithium vs control for preventing death by suicide was evaluated by calculating the OR with 95% CI and *P* values using the Peto method. Statistical significance was defined as *P* less than .05 and 95% CI not crossing 1. Heterogeneity was assessed using the Cochran *Q* test and the I^2 statistic, with substantial heterogeneity defined as *P* less than .10 and I^2 greater than 50%.

Additional review of the data included confirmatory analysis using a Poisson regression model with random effects and calculating an incidence rate ratio (IRR) for suicides over person-years. Publication bias was assessed by generating a funnel plot for the primary outcome and visually inspecting for asymmetry. Quality of evidence was assessed using GRADEpro software. Ethics approval and informed consent were not required for this study.

Study Results

The systematic review yielded 7 RCTs that met eligibility criteria, comparing lithium with control using death by suicide. All studies were conducted in North America or Europe from 1973 to 2022 and involved adults with a diagnosis of major depressive disorder or bipolar disorder.

The odds of suicide were lower for the 568 individuals on lithium compared with the 570 in the control group (OR, 0.30; 95% CI, 0.09-1.02; *P* = .05), although the difference was not statistically significant. The IRR also favored lithium (IRR, 0.22; 95% CI, 0.05-1.05; *P* = .06), but this result was similarly not statistically significant.

No substantial or significant heterogeneity was observed among the studies (Cochran *Q*, 3.60; I^2 = 0%; *P* = .61). One study (Girlanda 2014) had a wide CI and favored the control group, which was care as usual. All other studies favored the intervention group and used a placebo as the control group.

Risk of bias assessment indicated concerns about study assignment and adherence due to reported nonadherence to the study drug and high attrition rates. Recruitment issues were also noted in several studies. A visual inspection of the funnel plot showed no evidence of publication

STUDY STRENGTHS

1. This is an extensive review that includes over 1100 individuals.
2. Individuals with both major depressive disorder and bipolar disorder were included.
3. GRADE analysis revealed the evidence supporting lithium's antisuicidal properties was moderate.
4. The authors were conservative in classifying 1 death by drug overdose in the placebo group as an accidental death as opposed to a suicide; including this event as a suicide would have significantly changed study results in favor of lithium.
5. There was no evidence suggesting publication bias.
6. The authors declared no conflicts of interest.

STUDY LIMITATIONS

1. Target and actual lithium levels varied among the trials.
2. Some trials struggled with low recruitment.
3. Some trials struggled with poor treatment adherence.
4. Some trials had high attrition rates.
5. Most studies had short follow-up (less than 1 year).

bias. In the case of 1 participant death by drug overdose, the authors conservatively decided not to include this as a suicide. Had they included this death as a suicide, the study would have reached statistical significance and more strongly favored lithium. According to Grading of Recommendations Assessment, Development, and Evaluation (GRADE) analysis, the certainty of the evidence in favor of lithium was moderate, highlighting its importance in relation to mortality outcomes.

Conclusions

The 7 RCTs included in this systematic review and meta-analysis found that the odds of suicide were lower in individuals treated with lithium. However, these results were not statistically significant.

Practical Applications

This study provides moderate evidence that lithium lowers the risk of suicide. Clinicians should consider lithium as an intervention to reduce suicide risk. More data are needed to clarify the long-term antisuicidal effects of lithium and its role in decreasing impulsivity.

Bottom Line

This systematic review and meta-analysis aimed to provide clarity on an important topic in psychiatry: preventing suicide. Although the results were not statistically significant, this review had moderate-quality evidence supporting lithium's ability to lower mortality rates. Clinicians should consider the unique risk factors, characteristics, and values of their patients when considering utilizing lithium in the treatment of suicidal patients.

Dr Woo is a second-year psychiatry resident at Creighton University in Omaha, Nebraska. **Dr Schuster** is a fourth-year psychiatry resident at Creighton University. **Dr Mullen** is a fourth-year psychiatry resident at Creighton University. **Dr Tampi** is a professor and chair of the Department of Psychiatry at Creighton University School of Medicine and Catholic Health Initiatives Health Behavioral Health Services. He is also an adjunct professor of psychiatry at Yale School of Medicine in New Haven, Connecticut, and a member of the *Psychiatric Times* editorial board. ■

Special Populations

Navigating Perinatal Loss

Richa Lavingia, MD, MPH; Meredith Spada, MD; and Priya Gopalan, MD

CASE STUDY "Ms Anderson" is a 36-year-old G6P2 with past medical and psychiatric history significant for major depressive disorder (MDD) in full remission, 3 prior first-trimester perinatal losses, and gestational hypertension, who was admitted to the obstetrical hospital at 34 weeks with concern for decreased fetal movement. You see her for psychiatric consultation after stillborn delivery with no postpartum complication of hypertension. The obstetrics team was concerned as Ms Anderson appeared very tearful and was expressing increased anxiety and sadness following her delivery.

On interview with the psychiatry team, Ms Anderson reports experiencing sadness related to the death of her baby. She reports that the stillbirth was a shock because the pregnancy was uncomplicated. Given her history of recurrent losses, she was monitored very closely by her obstetrician and felt reassured as the pregnancy was progressing without major concerns. Following the delivery, she reports that hearing beeps from medical equipment and alarms from intravenous pumps in the hospital has been triggering to her as it reminds her of the delivery. She also reports that the delivery reminded her of her prior losses. Because of this, she is feeling anxious and unable to calm herself. She finds the hospital a difficult place to be, but has been told she needs to remain there for 1 or 2 additional days.

As Ms Anderson speaks to you, she is holding her newborn throughout the interview. She is cooperative with the interview and is tearful throughout. Her mood is sad and her affect is mood-congruent and with restricted range. Her examination is otherwise unremarkable.

Epidemiology of Perinatal Loss

Perinatal loss is common, with approximately 15% of recognized pregnancies ending in miscarriage.[1] Recurrent pregnancy loss, generally defined as 2 or more losses at before 20 weeks gestation, affects about 2.5% of women.[2] Stillbirth, defined by the Centers for Disease Control and Prevention (CDC) as a loss after 20 weeks gestation, is less common than miscarriage but nonetheless affects a substantial number of families. Per the CDC, stillbirths comprise about 1 in 175 births, resulting in more than 20,000 stillbirths annually in the United States.[3] In 2021, the fetal mortality rate for pregnancies at a gestation of 20 weeks or greater was 5.73 fetal deaths per 1000 live births and fetal deaths.[4] The fetal mortality rate during the third trimester (28 weeks gestation or greater) was 2.80 per 1000 live births and fetal deaths in 2021.

The cause of perinatal loss is often unknown. Various risk factors, including tobacco use, multifetal gestation, fetal congenital anomalies, maternal age, and maternal diabetes or hypertension, are associated with an elevated risk of stillbirth.[4,5]

There are also substantial disparities in rates of perinatal loss, with certain racial and ethnic minority groups disproportionately affected. In 2021, the stillbirth rate was 7.48 per 1000 for American Indian or Alaska Native women and 9.89 for Black women, compared with 4.85 for White non-Hispanic women.[4] This disparity likely stems in part from structural factors, including systemic racism experienced by BIPOC populations (Black, indigenous, and people of color).[6] Structural barriers can result in decreased screening for perinatal mental health disorders and decreased access to care among marginalized groups.

KEY POINTS

- Patients who have experienced a perinatal loss are at increased risk of MDD, anxiety disorders, and trauma-related disorders.
- Distinguishing these disorders from normal grief and bereavement can be challenging but is crucial in connecting patients to the appropriate treatment.
- Nonpharmacologic strategies, such as connecting with additional loss support and producing mementos, are often first-line treatment in the immediate care of patients experiencing a loss.

Psychiatric Sequelae

Psychiatrists may encounter patients who have experienced pregnancy loss in many different settings and must be prepared to screen for and treat common psychiatric concerns in this population. In addition, they should be aware of certain groups that are at higher risk of developing mental health conditions or experiencing an exacerbation of a preexisting mental health condition, including MDD and anxiety disorders, in the wake of a loss. These groups include individuals with a history of infertility or recurrent loss, LGBTQ+ populations, and BIPOC populations.[7]

Perinatal loss is a traumatic event, and some individuals who experience loss also have a history of birth trauma. Common responses to loss and trauma include psychological distress, grief,

postpartum blues, and posttraumatic symptoms, including detachment and numbness.[7] Some patients go on to develop other conditions, including postpartum depression, postpartum anxiety disorders, acute stress disorder or posttraumatic stress disorder (PTSD), and adjustment disorder. Reactions to a loss can be complex, and psychiatrists may experience challenges in distinguishing among normal grief, pathological grief, MDD, and other common postpartum conditions.

Symptoms of grief and bereavement, including sadness, frequent thoughts related to the loss, and yearning for the deceased, are common and should not be treated as pathological. In some circumstances, however, patients may develop more complicated or pathologic grief requiring intervention. These patients may experience symptoms of grief that are prolonged, disruptive, and interfere more substantially with functioning.[8] In distinguishing grief from MDD, psychiatrists should consider the time course of symptoms as well as the presence of depressive symptoms, including feelings of guilt and self-blame, hopelessness, worthlessness, and suicidal ideation.

Treatment Strategies

Accurate diagnosis is key in allowing psychiatrists to identify appropriate treatments for individuals who have experienced perinatal loss. Conducting a thorough risk assessment identifies individuals who may require a greater level of support or higher level of psychiatric care.

Nonpharmacologic strategies will often be first-line treatment in the immediate care of patients experiencing perinatal loss. This approach includes connecting the individual with additional support through local bereavement doulas, support groups, and loss support organizations. In hospital-based settings, allowing the bereaved to spend time with the deceased and produce mementos such as handprints and photos can ease the grieving process. Deferring to patients for preference for language around the loss is imperative. For example, patients may prefer to avoid terms such as miscarriage, stillbirth, and fetus, and using nonpreferred terms can harm the therapeutic alliance. Hospital-based social work teams may lead this process, and psychiatry teams should coordinate with them. Referral to psychotherapy may be offered to allow for ongoing processing of the loss.

Pharmacologic management can be helpful for individuals experiencing symptoms consistent with MDD, a postpartum anxiety disorder, or PTSD, though it is rarely indicated in the immediate aftermath of perinatal loss. In instances where a medication is indicated, limited data guide the selection of pharmacologic therapy for patients who have experienced a loss, though selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors are commonly used and are first-line pharmacologic treatment for postpartum depression, anxiety, and PTSD.

TABLE. Treatment Strategies for Common Post-Loss Symptoms and Conditions

Grief/bereavement	Connect to loss support resources including local loss organizations, psychotherapy if indicated
Complicated grief	Assess for comorbid psychiatric disorders and initiate medication if indicated; refer to psychotherapy (specifically grief or trauma-focused therapy if available)
MDD/Anxiety disorders	Consider initiation of medication such as SSRI, refer to psychotherapy
Trauma-related disorders	Consider initiation of medication such as SSRI, refer to psychotherapy (specifically trauma-focused therapy if available)

Psychiatrists may additionally consider newer agents such as brexanolone or zuranolone in the setting of moderate to severe depression. However, some patients may find the inpatient administration of brexanolone to be a barrier given negative associations with the hospital environment following a traumatic birth or loss.[7] More treatment strategies for common post-loss symptoms and conditions can be found in the **Table**.

In the case of Ms Anderson, you learn that she has a history of depression (low mood, poor sleep, low appetite, anhedonia, guilty thoughts, passive death wish) lasting 2 to 3 months at a time following the birth of her first child, as well as following her prior losses. However, she denies any history of suicidal ideation and homicidal ideation, and she denies a history of suicide attempts. Based on the interview, her symptoms were thought to be consistent with normal bereavement with some posttraumatic symptoms related to the birth. She was connected with grief resources, including a local support group. She was referred to an outpatient therapist and psychiatrist given her history of depressive episodes so that her symptoms would be closely monitored following discharge.

Concluding Thoughts

Perinatal loss is common, and those who have experienced loss may experience a range of reactions, including both normal and complicated grief as well as depressive, anxiety-spectrum, and trauma-related disorders. Psychiatrists should be mindful of the vast disparities in rates of perinatal loss as well as psychiatric complications stemming from loss, and should take care to screen for these conditions. Treatment will vary based on presentation, but often includes nonpharmacologic strategies including referral to psychotherapy, connection to local support groups and loss support organizations, and allowing the bereaved to produce mementos and spend time with the deceased.

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Follow-Up VISIT from PER® Physicians' Education Resource, LLC

3 Things You Need to Know About Tardive Dyskinesia

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Release Date: November 1, 2024
Expiration Date: November 1, 2025

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Upon successful completion of this activity, you should be better prepared to:

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- Assess clinical trial results for therapies used in the management of tardive dyskinesia

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Tardive dyskinesia (TD) is a neurological disorder that can occur in patients with schizophrenia treated with antipsychotic therapy, although it can develop in the absence of antipsychotic exposure. TD manifests as abnormal, involuntary movements of the orofacial regions, trunk/respiratory system, and limbs.[1] The disorder causes a significant illness burden beyond its symptoms with impacts on various quality of life (QOL) and functional domains.[2] Inhibitors of vesicular monoamine transporter 2 (VMAT2) are available therapeutic options that can be incorporated into an individualized care plan. Here are 3 things you should know about optimal management of TD.

1 The illness burden of TD is significant.

Gaining a clear understanding of the impact of TD symptoms on a patient's life helps guide treatment selection; therefore, impact assessment should be a routine component of the evaluation. It should be conducted at *every* patient visit, as the burden of TD can change with time. TD can broadly impact social, physical, vocational, psychological, psychiatric, and other domains associated with QOL and daily functioning.[2]

Data demonstrate the illness burden of TD for patients as well as their caregivers. Social withdrawal and isolation, which are among the most reported negative impacts of this condition, have been reported by 72.7% of patients and 18.2%

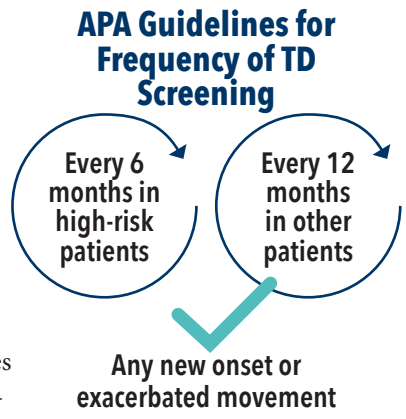
of caregivers.[2] Physical burdens, such as impaired speech, are also frequently reported.[3] In an online survey, at least 70% of respondents reported difficulty with various physical activities, including falling asleep, exercise, household chores, holding items, eating without choking, speaking, and chewing. Approximately 80% of survey respondents also reported feeling sad, unhappy, irritable, frustrated, angry, anxious, or worried as a result of their TD.[4] The financial burden of TD has been estimated at an annual all-cause-related health care cost of $54,656 for patients with TD vs $28,777 for those without TD.[5] In the prospective cohort RE-KINECT study (NCT03062033) with 739 participants who had exposure to antipsychotics, those with TD were also less likely to be working or studying than those without TD.[6]

Expert Perspective on TD Impact

Most patients with TD are very self-conscious about movements caused by TD and [they are] highly embarrassed. As a result, they withdraw socially. This is 1 major reason why it's imperative that clinicians effectively address TD. –Alex Alva, MD

2 Comprehensive screening and monitoring are essential for optimizing outcomes for patients with TD.

American Psychiatric Association (APA) guidelines recommend screening for the presence of TD to identify the disease, minimize progression, and institute clinically indicated treatment. Regular assessments are suggested to occur every 6 months for high-risk patients, every 12 months for other patients, or any time a patient experiences new onset or exacerbated abnormal movement.[7]



If abnormal movement is detected, a structured evaluation should be done using a tool such as the Abnormal Involuntary Movement Scale (AIMS). The AIMS considers movements in 7 regions: muscles of facial expression, lips and perioral area, jaw, tongue, upper extremities, lower extremities, and trunk. A score greater than 2 in any of these 7 areas generally confirms the presence of abnormal movement. The AIMS also scores global judgments of movement severity, incapacitation, and the patient's distress resulting from abnormal movements, as well as the patient's dental status. AIMS scores between 1 and 7, between 8 and 14, and ≥ 15 indicate mild, moderate, and severe TD, respectively.[8]

Evaluation of TD may be complicated by fluctuations in dyskinetic movements caused by reduced use of antipsychotic medication, withdrawal-emergent dyskinesia, or changing psychosocial stressors.[7]

3 Clinical guidelines recommend VMAT2 inhibitor therapy for moderate-to-severe or disabling TD.

In 2017, FDA approvals of the VMAT2 inhibitors valbenazine and deutetrabenazine revolutionized medical treatment of TD. These agents reduce the amount of dopamine released into the synaptic cleft by inhibiting the VMAT2 transporter protein.[9] Valbenazine received FDA approval as the first drug to treat TD.[10] Following its initial approval, once-daily, extended-release deutetrabenazine available in 4 tablet dosages (30, 36, 42, and 48 mg) received FDA approval in May 2024.[11]

Efficacy, safety, and tolerability of valbenazine were demonstrated in the phase 3 KINECT 3 study (NCT02274558), including a 1-year extension phase.[12] Longitudinal efficacy and safety were also investigated in the 48-week, open-label, phase 3, KINECT 4 trial (NCT024050891).[13] In KINECT 3, participants (N = 167) started treatment with valbenazine, 40 mg/d, until week 4, followed by escalation to 80 mg/d depending on efficacy and tolerability. After week 48, participants were transitioned to a 4-week washout period. Efficacy was measured using AIMS, Clinical Global Impression of Change-TD (CGIC-TD), and Patient Global Impression of Change (PGIC) ratings. Efficacy findings included improvements in AIMS score at both 40 mg/day (-10.2) and 80 mg/day (-11.0), with most patients achieving at least a 50% improvement in AIMS by week 48. Approximately 90% of patients treated with either 40 mg/day or 80 mg/day also achieved much or very much improvement in CGIC-TD PGIC ratings at week 48. Partial loss of treatment effect was detected at week 52 following the washout period. Fewer than 15% of patients had a serious treatment-emergent adverse event (TEAE), with 11.8% having a TEAE that led to discontinuation, confirming overall safety and efficacy of valbenazine.[13]

Topline Long-Term Trial Efficacy Outcomes for VMAT2 Inhibitors

Trial: KINECT 4	Trial: RIM-TD
Agent: valbenazine	Agent: deutetrabenazine
N = 167	N = 343
Improvement in AIMS: -10.2 (40 mg/d), -11.0 (80 mg/d) at week 48	Improvement in AIMS: -6.6 (mean 39.4 mg/d) at week 145

Efficacy and safety of deutetrabenazine were demonstrated in the phase 2/3 ARM-TD study (NCT02195700) and the phase 3 AIM-TD study (NCT02291861).[14,15] Patients who completed these studies were eligible to enroll in a 3-year, single-arm, open label extension, phase 3 RIM-TD trial (NCT02198794).[16] Patients (N = 343) were treated with twice daily deutetrabenazine starting with 12 mg/d titrated up to 48 mg/d for up to 6 weeks, as determined by disease control and tolerability. Efficacy was determined as change in AIMS, CGIC, and PGIC relative to baseline. At week 145, the mean dose was 39.4 ± 0.83 mg/d and mean improvement in AIMS score was -6.6 ± 0.37. Sixty-seven percent of patients achieved ≥ 50% improvement in AIMS. Improvements in CGIC and PGIC were detected in 73% and 63% of patients, respectively. Deutetrabenazine was well tolerated, with no new safety signals reported, confirming its long-term efficacy and safety.[16]

Updated 2020 APA guidelines now recommend that patients with moderate-to-severe or disabling TD be treated with a reversible VMAT2 inhibitor.[7] The need for and urgency of treatment initiation varies from patient to patient and should be decided based on input from the clinician and patient, including the patient's individual degree of illness burden.[2]

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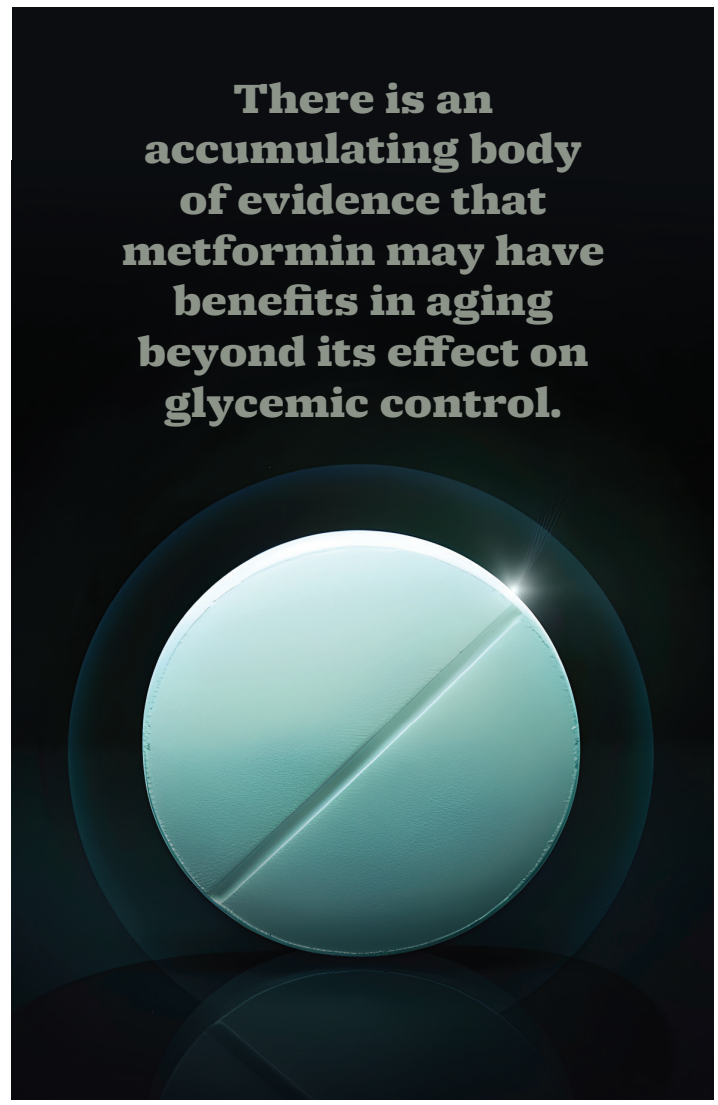
"Happy Accidents" Repurposing Metformin

Vania Modesto-Lowe, MD, MPH; Roberto León-Barriera, MD; and Jasleen Kaur, MD

A recent article on the multiple uses of metformin brings up the important topic of repurposing medications.[1] Repurposing has been around since the advent of modern medicine. One prominent example is the use of chlorpromazine (CPZ) as an antipsychotic.[2] Chlorpromazine was first synthesized in 1951 as a potentiator of general anesthesia.[2] The psychiatric benefits were found later by Henri Laborit, a surgeon in the French army, who was doing research with artificial hibernation in the prevention of surgical shock. Laborit employed CPZ as an adjunct to anesthetics. He observed that CPZ at doses of 50 mg to 100 mg produced a lowering of body temperature, sedation, and disinterest without loss of consciousness. He was able to persuade his colleagues in the military hospital in Paris, France, to try CPZ in the treatment of a patient who was experiencing psychotic agitation. The mechanism of action was not fully known, and it was thought that it worked in controlling agitation because of its cooling effect and induction of artificial hibernation in patients.[2] The pharmacological mechanism was not fully understood until many years later, and the way it has impacted the practice of psychiatry needs no introduction.

These happy accidents in medicine have played a vital role in getting where we are right now in patient care compared with just 50 years ago. This begs the question, are we onto another *happy accident* with metformin? There is an accumulating body of evidence that metformin may have benefits in aging beyond its effect on glycemic control.[3]



Repurposing Metformin

Metformin is endorsed by the American Diabetes Association and the European Association for the Study of Diabetes as initial therapy for patients with type 2 diabetes (T2D), and it is one of the most prescribed antidiabetic medications worldwide.[4] It is widely recognized that metformin improves hyperglycemia and insulin sensitivity.[4] Recently, the observation that metformin decreased the development of certain age-associated pathology in individuals with and without diabetes has garnered attention.[3] Aging refers to the time-dependent physiological loss of cellular integrity[5] and is associated with T2D, dementia, cancer, and cardiovascular disease.[6] The United Kingdom Prospective Diabetes Study has shown that metformin is associated with a lower all-cause mortality rate in patients with diabetes.[7] This study was a 20-year randomized multicenter longitudinal study, and researchers found cardiovascular benefits of metformin in patients with diabetes.[7] Similarly, a systematic review of 53 studies showed that metformin use resulted in a decrease in all-cause mortality linked with aging-related diseases such as cancer and cardiovascular disease.[8] As the aging population grows and life expectancy increases, we are searching for ways to maintain quality of life for as long as possible.

In the US, advances in health care and public health have afforded increases in life expectancy.[5] Unfortunately, this longevity has been accompanied by an increase in the incidence of age-related diseases, which leads to a decreased quality of life.[5] Health span refers to the life period in which one is healthy and free from chronic illness and aging-related dysfunction; it serves as a proxy for quality of life during the older years.[6] There is a pressing need for interventions that can delay age-associated diseases and improve health span. Preclinical data indicate that metformin may influence cellular mechanisms associated with aging, including inflammation, oxidative stress, cell senescence, and autophagy.[3-5] Of note, metformin mimics the metabolic actions of caloric restriction, which is a recognized strategy to prolong health and life span in mammals.[9] Metformin may also mimic the geroprotective effects of exercise.[5] Since metformin is inexpensive and offers a good tolerability and safety profile, it is attractive as a focus of antiaging research.[3]

Reducing Inflammation

As early as 1907, Élie Metchnikoff theorized that cell senescence resulted from chronic systemic inflammation due to increased permeability in the colon, and the escape of bacteria and their toxic metabolites into the systemic circulation.[10] Accordingly, these toxic bacterial products activated phagocytes and an inflammatory response that led to death of adjacent tissues.[11] Interestingly, more than a century later, aging is thought to be associated with a persistent low-grade inflammation, referred to as *inflammaging*, that originates in the gut.[11] We now know that the intestinal mucosal layer is a key modulator of inflammatory responses, protecting against invasion of dietary and microbial antigens and lumen contents. With aging there is a reduction in thickness of this mucus layer, resulting in weakened intestinal barrier function. The term *leaky gut* refers to excessive bacterial translocation from the intestinal lumen into the systemic circulation, which triggers inflammatory cascades and low-grade chronic inflammation. Results of recent research in mice lend support to the hypothesis that metformin may decrease inflammation by maintaining the integrity of the

IMAGE BY NICOLE SLOCUM / MJH LIFE SCIENCES USING AI

intestinal barrier.[12]

In one study, metformin significantly decreased bacterial translocation in older mice and the expression of inflammatory markers such as interleukins (ILs) and tumor necrosis factor α.[12] In addition to low-grade inflammation, contemporary views of aging suggest a decline in several mediators of cell maintenance.[5] For example, autophagy (a cellular recycling program that removes dysfunctional organelles from the cytoplasm) deteriorates with aging.[5] Of interest, metformin has been implicated in improving autophagy and slowing several cellular mechanisms of aging.[5] It has been posited that metformin's anti-inflammatory effects modulate cellular integrity by maintenance of cell-to-cell communication, leading to a reduction in proinflammatory cytokines.[3]

In addition to chronic inflammation and dysregulation of cell-cell connectivity, other hallmarks of aging include mitochondrial dysfunction, genomic instability, and oxidative stress.[3] Although knowledge of metformin's effects on these aging processes remains elusive, there is increasing interest in this field. One example is the Metformin in Longevity Study (MILES; NCT02432287), a double-blind, placebo-controlled clinical study that included 14 patients. Researchers sought to establish associations between 6-week metformin intake and youthful gene expression in older persons with impaired glucose tolerance.[13] Preliminary results indicate that in older individuals, metformin is implicated in metabolic changes, including DNA repair in the muscle tissue and mitochondrial fatty acid oxidation in the adipose tissue.[6,13]

Early on, the antidiabetic benefits of metformin were deemed to occur via decreased lipogenesis and gluconeogenesis in the liver because of its impact on molecular signaling and mitochondrial function.[3] The end result was a decrease in plasma glucose and decreased insulin resistance.[3] Metformin also exerts action in extrahepatic sites such as the gut. After oral administration, metformin concentrations in the intestinal lumen are significantly higher than in the systemic circulation.[14] Metformin exerts many actions within the gut, such as an increase in lactate production and intestinal glucose uptake, an increase in glucagon-like peptide-1 (GLP-1), and advantageous changes in the gut microbiota.[14] The gut microbiota is an ecosystem that interacts in a symbiotic fashion with the host to promote health.[15] The microbiota impacts vitamin and short-chain fatty acid production, digestion, immunity, and the permeability of the intestinal barrier.[15] With aging, there are changes in the gut microbiome leading to increased inflammation, gut permeability, and release of proinflammatory cytokines.[11] Metformin may improve the gut microbe composition by increasing the ratio of bacteria that produce anti-inflammatory short chain fatty acids (SFCAs).[16] These bacteria ferment dietary carbohydrates that humans cannot digest.[16] SCFAs are widely known for enhancing glucose homeostasis in adipose tissue, liver, and muscles.[16] Metformin also reduces the abundance of proinflammatory bacterial species supporting the integrity of the intestinal barrier.[12] In animal studies, metformin expanded the gut population of *Akkermansia* spp, a producer of short-chain fatty acids that is correlated with a decrease in adipose tissue inflammation.[16] Although human studies are yet to uncover a metformin signature on the gut microbiome, this is an area that merits further examination.[16]

Anticancer Effects

In terms of aging-related diseases, there has been interest in exploring the putative anticancer actions of metformin. Preclinical evidence has shown that metformin inhibits tumor growth and metastasis in mouse models for head and neck squamous cell carcinoma, hepatocellular carcinoma, and breast cancer.[9] Observational studies have also revealed that metformin exerts beneficial effects on individuals with diabetes who also have comorbid cancer.[9] Recent attempts to explore whether metformin decreases the incidence of age-related disease in humans have yielded variable results. Notably, the largest randomized trial of metformin as adjuvant treatment for breast cancer (N=3649 women, 5-year follow-up) found no advantage of metformin in measures of disease-free survival or overall survival.[9] Whether metformin can delay the onset of other age-associated cancer and pathology remains unclear.

Neuroprotective Effects

Finally, a neuroprotective effect of metformin has also been proposed. Aging and neurodegenerative disease share similar cellular dysfunction patterns, including inflammation, oxidative stress, and mitochondrial dysfunction. It is possible that regulation of glucose metabolism and insulin sensitivity may counter some of these cellular processes. In 5528 patients with diabetes with a median follow-up of 5.2 years, prolonged metformin use (>2 years) significantly decreased the risk of developing neurodegenerative disorders.[17] However, in a subsequent meta-analysis, metformin did not decrease the risk of developing Alzheimer disease.[17] Doubts about the neurocognitive effects of metformin persist. Does long-term metformin treatment alter the risk of cognitive decline?

Major efforts to clarify these putative effects include the Targeting Aging With Metformin (TAME) trial, which is a large double-blind, placebo-controlled study that seeks to establish antiaging properties of metformin.[18] Specifically, the TAME trial aims to examine whether giving metformin to healthy individuals delays the onset of aging-associated diseases.[18] It will include 3000 participants aged 65 to 79 years, and it is the first large trial for geroprotective medications.[18]

Concluding Thoughts

In sum, the repurposing of metformin has been of research and clinical interest worldwide. Interest in metformin's potential benefits in aging-related diseases has been renewed given the increase in human life span and the need to extend quality of life in geriatric populations. Despite promising data from preclinical and observational studies, the use of metformin for antiaging continues to be investigational. Whether geroprotection will become another avatar of metformin remains to be seen.

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Opening Pandora's Box: The Importance of Assessing and Treating Trauma in Individuals Experiencing Psychosis

Sripriya Chari, PhD; Grace Eun Lee, PhD; Nichole D. Olson, PhD; and Kate V. Hardy, PsyD

CASE VIGNETTE "Sasha" is a 23-year-old nonbinary Asian American individual. Sasha is a survivor of childhood emotional and physical abuse by their parents. In addition, Sasha was physically assaulted when they were a freshman in college as they were walking back to their dorm late at night. Soon after this experience, they started having nightmares and flashbacks about the assault. They became easily startled and hypervigilant and no longer felt safe in lecture halls and on campus, which led them to drop out of college. Sasha also believes that strangers on the street intend to harm them physically, and they let Sasha know this by making eye contact with Sasha or by touching their faces. Sasha also reports seeing shadowy figures that seem threatening and hearing voices—both of their abusers from the past and strangers. These voices say degrading things about Sasha, which they interpret as a sign that there is a larger plot against them. Sasha no longer feels safe leaving the house or socializing, is disengaged from loved ones, is unable to return to college or work, and is currently on a leave of absence from their job at a daycare center. In the context of reduced sleep, concerns about financial stressors, and worsening voices, Sasha presents to the emergency department, where they disclose their voices, the shadowy figures, and fears that others in their neighborhood are threatening them. They are commenced on antipsychotic medication and are connected with their local early psychosis service for follow-up.

Trauma and Psychosis

Per the Substance Abuse and Mental Health Services Administration (SAMHSA), "Individual trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being." Posttraumatic stress disorder (PTSD) refers to a cluster of symptoms often experienced by individuals who have experienced trauma. Whether a person who has experienced a traumatic event will go on to qualify for a diagnosis of PTSD depends on the event, the person's experience of the event, and the long-lasting adverse effects of the event.[1]

Sasha's presentation with comorbid symptoms of psychosis and PTSD is not unusual. Individuals experiencing psychosis often have also been exposed to traumatic life events,[2,3] with some estimates suggesting that all individuals with a psychotic disorder have experienced at least 1 traumatic event.[2] In addition, the experience of psychosis, as well as some aspects of mental health treatment including police involvement in admission, seclusion, and restraint, can also be traumatic.[4] The rates of PTSD in those experiencing psychosis range from 10% to 30%, and approximately 40% of individuals with PTSD experience psychosis.[3,5-8] Psychosis-related PTSD, or PTSD directly related to having a psychotic episode, varies from 14% to 47%.[9] Comorbid PTSD/psychosis is associated with increased health care use and worse clinical outcomes.[8,10] Hence, when planning for effective care, it is important to assess for trauma and PTSD in anyone presenting with symptoms of psychosis.

CLINICAL PEARL: Traumatic experiences are very common for those who report symptoms of psychosis. Trauma may be a result of early childhood experiences or later traumatic experiences linked to psychosis symptoms or treatment for psychosis. Psychosis symptoms can also occur in the context of PTSD and posttraumatic stress.

Assessment of Trauma in Individuals Experiencing Psychosis

Trauma is often overlooked in individuals with psychosis, resulting in an inadequate assessment of traumatic or adverse life events and, therefore, limited access to gold standard, evidence-based trauma treatments. Assessing for trauma should occur routinely, and access to these treatments should be made available for all individuals as needed. If Sasha is asked specific questions assessing past traumas, they will likely report childhood abuse and the more recent physical assault. Structured assessments commonly used to assess PTSD symptoms include the PTSD Checklist for *DSM-5* (PCL-5),[11] PTSD Symptom Scale – Interview for *DSM-5* (PSS-I-5),[12] and Clinician-Administered PTSD Scale for *DSM-5* (CAPS-5).[13] During an initial assessment, it is vital for clinicians assessing potential traumatic experiences to gather only the information necessary to determine whether a trauma history is present and whether trauma interventions are appropriate, which does not require a full account of traumatic experiences. Requiring individuals to disclose a detailed account of their trauma history during the initial assessment poses a risk for

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HEAR FROM OUR PROGRAM CHAIR

Carmen Kosicek, MSN, PMHNP-BC
CEO, Founder, Provider
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Hillsboro, Oregon

LEARNING OBJECTIVES

- Describe the mechanism of action and pharmacologic profile (ie, onset of action, half-life, and steady state) of pharmacotherapeutics used to treat psychiatric disorders
- Assess the clinical use profiles of pharmacotherapeutics used to treat psychiatric disorders
- Identify how to position current treatment options for patients based on drug characteristics, patient needs, and consideration of fiscal obtainability
- Develop and adjust evidence-based treatment plans for patients with psychiatric disorders

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retraumatization and may limit what the individual feels comfortable sharing. PTSD assessments only ask clients to, at most, share a brief description of the traumatic event and PTSD symptoms.

Assessment is an essential component of understanding, and addressing, trauma as part of a psychosis presentation. In our clinical example, if Sasha is only assessed for psychosis and not asked questions about past traumas, they will likely receive a diagnosis of a psychotic disorder (such as schizophrenia) and be prescribed antipsychotic medications to reduce the occurrence of the voices and shadowy figures. Sasha may also be offered supportive psychotherapy and case management. If the clinic has trained staff, Sasha may be offered an evidence-based psychotherapeutic intervention such as cognitive behavioral therapy for psychosis (CBTp). However, the traumatic experiences would go untreated, thus limiting the potential for recovery.

CLINICAL PEARL: As clients do not often report trauma experiences unless asked about them explicitly, assessment of trauma in individuals presenting with psychosis symptoms is essential. Assessing for the types of trauma experienced and PTSD symptoms, as opposed to a full account of traumatic events, is sufficient at this stage of care.

Trauma-Informed Care

SAMHSA recommends that all treatment programs take a trauma-informed approach.[1] This incorporates key principles into the organizational culture of the program. These include acknowledging the widespread impact of trauma and the path to recovery, recognizing the signs of trauma in individuals, and responding by making sure policies and practices are geared toward not retraumatizing the individual. A trauma-informed approach may or may not include trauma-specific treatments. Some fundamental principles in a trauma-informed approach are ensuring a sense of physical and psychological safety for all served; building and maintaining individuals' trust in the program by those accessing services and their families; welcoming mutual self-help from those with lived experience of trauma and recovery from trauma; adopting a nonhierarchical, collaborative stance where the expertise of individuals accessing services is understood and respected; keeping individuals accessing services front and center, and believing in their resilience and ability to recover from trauma; and providing care that actively moves away from stereotypes and biases.

CLINICAL PEARL: Programs should consider how to implement trauma-informed care and ensure staff are trained in this approach to best meet the needs of individuals accessing services.

Addressing Trauma

Clinicians are often concerned about the increased sensitivity to stress in those experiencing psychosis and can be hesitant to use evidence-based treatments for PTSD.[14,15] As a result, evidence-based trauma treatments are not offered routinely to individuals seeking treatment for psychosis in the United States.[16] However, Grubaugh et al, in a meta-analysis of PTSD treatments for individuals diagnosed with PTSD and a "severe and persistent comorbid mental illness," which included psychotic spectrum disorders or mood disorders, found that PTSD treatment can be used safely in this population.[5]

In addition, a growing evidence base suggests that standard protocols for trauma treatments in psychosis are effective.[17] These treatment protocols include trauma-focused CBTp,[18] prolonged exposure,[19] and eye movement desensitization reprocessing.[20] However, adapting these protocols may be necessary to ensure the needs of an individual experiencing psychosis symptoms are thoroughly addressed; for example, ensuring the individual has sufficient coping skills in place to tolerate the trauma intervention while not prolonging access to exposure-based therapies ("as much as needed, but as little as necessary") and supporting the individual around psychosis symptoms if these are intrusive and may impact the trauma treatment. Developing an initial formulation to understand the trauma timeline, subsequent symptoms (both trauma and psychosis focused), and impact of these on core beliefs will aid the clinician in determining where to focus psychosocial interventions.

CLINICAL PEARL: Treatment options and pacing are guided by the immediate needs of the individual and should support the reduction of distress and movement toward meaningful goals.

Concluding Thoughts

Traumatic life events are common among individuals who experience psychosis. Often, when an individual presents with psychosis, past traumas are not assessed. This could be due to the individual's hesitancy to talk about these events or the clinician's fear that asking about trauma will exacerbate symptoms. We now know that trauma-informed care leads to better outcomes. This systemwide approach begins with creating safe spaces for individuals to speak about past experiences in a way that is not retraumatizing and incorporates the impact of these experiences into a formulation that guides treatment. Evidence-based trauma interventions have been shown to be effective in addressing trauma in individuals experiencing psychosis and should be made routinely available. Further research on effective trauma intervention adaptations for individuals with psychosis would be meaningful. We encourage all clinicians who support individuals experiencing psychosis to provide trauma-informed care across treatment settings.

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PEER REVIEWED

Multidisciplinary Inpatient Care for Medically Compromised Youth and Young Adults With Eating Disorders

Jessica M. Pierce, MD, MSc; Vishvanie Bernadene Stoody, MD, MS; Christina Cwynar, DNP, CPNP-PC, PMHNP-BC; Syma Khan, MSW; Terrill Bravender, MD, MPH

With the onset of the COVID-19 pandemic, rates of medical hospitalization for severe malnutrition in the context of eating disorders increased dramatically among children and adolescents.[1] First-time presentations rose, average age at admission fell, and overall acuity heightened, as evidenced by higher rates of in-hospital psychotropic use, longer lengths of stay, and greater need for intensive services like inpatient psychiatric or residential care upon discharge.[2] Hospitalization rates have shown a downward trend over the last year, but total and first-time admissions to pediatric medical units for eating disorder care remain significantly higher than prepandemic levels.[3]

For pediatric hospitalists and consultation-liaison (CL) psychiatry teams, caring for severely malnourished children and adolescents in the acute medical setting poses unique challenges, both for in-hospital management and longer-term care planning. We present a multidisciplinary approach and clinical practice guideline (CPG) for providing evidence-based standardized treatment to this special population. The CPG was developed by an interdisciplinary workgroup at the University of Michigan, C.S. Mott Children's Hospital, based on our own clinical experience and modeled on standard practices within the field of adolescent medicine, as outlined in a similar protocol by Sylvester and Forman at Boston Children's Hospital.[4] Additionally, we share access to internally developed psychoeducation materials for patients and families in hopes that these resources might aid in practice efforts at other institutions. Even with a formalized protocol, we highlight ongoing treatment challenges relating to acute behavior management, capacity concerns, ethics around compelling care, and common barriers to discharge planning.

A Multidisciplinary Approach

At our hospital, patients who are admitted for medically monitored nutrition restoration are cared for by a primary general pediatrics team, made up of an attending pediatric hospitalist, pediatric residents, and medical students. Our protocol requires consultation to adolescent medicine (AM), pediatric CL psychiatry, and a registered dietitian nutritionist (RDN). Additional team members have varied levels of involvement based on each patient's needs, and might include psychiatry social workers, a behavioral support nurse, child life specialists, art and music therapists, spiritual care, learning specialists, and any other relevant medical subspecialty consultants (eg, pediatric endocrinology, pediatric cardiology). Bedside nurses play a crucial role in each patient's care and are vital members of the multidisciplinary team. A patient care attendant (a 1:1 bedside observer) is assigned to each patient upon admission and is continued for at least the first 24 hours, at which point the team and family discuss the benefit of maintaining that resource for the duration of the stay. Indication for the patient care attendant include increased supervision and monitoring of eating disorder behaviors in the hospital setting to ensure integration of these concerns into the treatment plan.

In many cases, complexities in the clinical presentation or psychosocial situation are so impactful for treatment planning that it is beneficial for the primary and consultant teams to round jointly each day. We also regularly convene multidisciplinary care team meetings, generally once toward the beginning of the admission and again closer to discharge. These meetings typically include the family (and sometimes the patient) and, if needed, step-down treatment centers, to optimize treatment progress and to plan for next steps in care.

Approaching the medical admission with this multidisciplinary team model from start to finish helps signal to patients and families that eating disorders are complex illnesses requiring not only medical stabilization and treatment but also comprehensive mental health, family, and social support interven-

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ACTIVITY GOAL

To describe a protocolized approach to the hospital management of pediatric patients with severe malnutrition related to eating disorders, including the utilization of a multidisciplinary care team and structured psychoeducation materials for families.

LEARNING OBJECTIVES

Describe the indications for medical admission, basic medical monitoring, general approach to meal planning, and useful behavioral structures and supports for managing malnutrition related to eating disorders in the hospital setting.

Outline steps for addressing acute behavioral dysregulation, capacity questions, and challenges in discharge planning for patients with eating disorders complicated by malnutrition.

TARGET AUDIENCE

This accredited continuing education (CE) 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. Medical Monitoring and Diagnostic Testing

	Upon admission/first 24 hours	First 7 days	Thereafter (if stable)
Labs	Complete blood count w/differential, complete metabolic panel, magnesium (Mg), phosphorous, human chorionic gonadotropin for patients assigned female at birth, thyroid stimulating hormone, free thyroxine, urinalysis	Daily morning labs: Renal function panel (RFP) Mg	Monday/Thursday morning labs: RFP Mg
	Glucose levels as clinically indicated.		
Heart monitoring	12-lead baseline EKG	EKG as clinically indicated	
	Cardiorespiratory monitor (CRM) upon admission, alarm limits at 40 and 120 bpm	Further alarm parameter adjustments and discontinuation of CRM as clinically indicated	
	Complete vitals every 4 hours while awake. Orthostatic blood pressure and heart rate with daily morning vitals		
Weight	Daily morning weight, blinded, post void, pre-breakfast, pre-shower, wearing hospital gown		

tions. Furthermore, we find that the multidisciplinary approach is vital for the well-being of our care teams, providing reinforcement and reassurance to individual team members as they navigate complex family dynamics and high expressed-emotion interactions.

Patient Characteristics

C.S. Mott Children's Hospital admits patients through aged 24 years though most are younger than 21 years. Most patients who are admitted for malnutrition related to disordered eating are in their mid- to late teens, but we have seen increasingly younger patients over the last few years, especially in the 10- to 12-year-old range. Patients 25 years and older are admitted to our University Hospital, where they are treated under a similar protocol, modified for that age population.

Some patients self-present to the emergency department (ED) due to significant weight loss or concerning symptoms, such as fainting or fatigue. Many patients are referred to the ED by primary care physicians or our own outpatient AM clinic upon detecting abnormal vitals, labs, physical exam signs, or failure to respond to outpatient management in the context of weight loss or reported food restriction. Often, patients carry an existing diagnosis of an eating disorder and are being followed longitudinally for that condition by AM or outside eating disorder specialists. Some patients, however, are presenting for first-time evaluation in the acute care setting and have never discussed the notion of an eating disorder diagnosis with a medical or mental health clinician. Unfortunately, there is a cohort of patients who have had multiple medical admissions to our hospital for malnutrition and are well known to the inpatient pediatric and consultation teams; this can be both helpful and challenging in treatment planning.

The overwhelming majority of patients fit the picture of anorexia nervosa (AN) but we do occasionally admit patients with bulimia nervosa or other disordered eating behaviors. When patients are admitted for malnutrition in the context of avoidant/restrictive food intake disorder (ARFID), we alter the protocol to better align with the unique needs of those patients. We currently have a multidisciplinary work group collaborating to formalize a separate protocol for ARFID admissions. When the diagnosis remains unclear or points toward a non–eating-disordered psychiatric reason for malnutrition, such as severe depression, psychosis, obsessive-compulsive disorder, or catatonia, the CL team collaborates with the medical providers to devise a treatment plan that is best suited for the presentation.

The Protocol

The CPG outlines specific admission criteria to aid the ED clinicians who first assess these patients. Any questions or uncertainty regarding the appropriateness of admission can be discussed in real time with the on-call AM consultant. Admission criteria include any of the following: acute food refusal for 24 hours with failure to demonstrate 100% completion of a standard meal in the ED; concerning physical signs or symptoms of malnutrition; body mass index (BMI) less than or equal to 75% of the median for age and sex; bradycardia (< 50 beats per minute while awake), hypotension (< 90/45 mm Hg), or hypothermia (< 96 °F, < 36 °C); intractable vomiting or uncontrolled bingeing/purging; or failure of outpatient treatment.[5]

Once the decision is made to admit the patient, the primary team places a standardized order set, which triggers a specific meal plan, sets up regular laboratory monitoring, and prompts consultation to AM, CL, and the RDN. Efforts are made to transition the patient out of the ED space as soon as possible, as that environment is not ideally suited for following a strict meal plan and supervision protocol. Ultimately, hospital census and acuity guide bed placement. For situations in which prolonged ED boarding is unavoidable, the CPG contains a section outlining adaptations of the protocol for the ED setting.

Because of the potential development of refeeding syndrome in severely malnourished patients undergoing nutrition repletion, close medical monitoring is paramount. A standard panel of labs and diagnostic testing is collected upon admission and throughout the hospital stay, as outlined in the **Table**. Fluid balance is closely monitored and a daily fluid goal and free water limit are set. Intravenous (IV) fluids are avoided in favor of enteral nutrition and hydration, but dextrose-containing IV fluids are occasionally necessary to maintain appropriate blood glucose levels or address clinical dehydration or ketonuria. Phosphorus and thiamine supplementation are initiated reflexively for patients with BMI less than 70% of the median for age and sex at the time of admission. Other electrolyte replacement and supplementation is instituted as needed throughout the hospitalization, based on lab monitoring.[5]

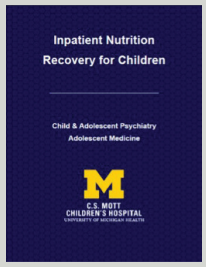
Nutrition is initiated at a level of 1500 kcal per day unless otherwise directed by AM. Calorie level is advanced by 300 kcal/day to until the patient is reliably gaining at least 0.3 kg to 0.4 kg every 2 days. The patient is not told calorie content or goals, and all information labels are removed from food items. The RDN meets with the patient and family upon admission to obtain the dietary history and to allow the patient to select 3 "no" foods for the duration of the hospitalization (these are limited to specific food items and cannot represent an entire food group). Subsequently, the RDN manages the patient's meal plan entirely, selecting the menu and ordering the trays in accordance with the given kcal level, rate of advancement, known allergies or intolerances, and specified "no" foods.

In the case of vegetarianism or veganism, the context of this preference is critical. If the family has been vegetarian/vegan for years and/or adheres to religious or culturally specified dietary restrictions, efforts are made to accommodate as able. If vegetarianism/veganism arose in the context of disordered eating behaviors, animal sources of food are gradually reintroduced alongside explanatory and supportive discussions with the patient and family. No outside food is permitted throughout the hospitalization to ensure accurate evaluation and monitoring of nutritional

and fluid intake and to limit opportunities for negotiation or counterproductive behaviors.

Calorie needs are provided as 3 meals and 3 snacks daily, following a set schedule and adhering to firm time limits to allow for proper digestion and prevent behavioral tactics to prolong meals or avoid food. Meals and snacks are to be completed in 30 min and 15 min, respectively. Food or beverages that are not completed within the time frame are replaced with a commercially available nutritional supplement drink at a concentration of 1.5 kcal/mL. Nursing follows an algorithm in which the proportion of food remaining on the tray at the end of the time limit is estimated, either 1% to 50% or 51% to 99% of total calories, and then cross-referenced to the calorie level for the day to determine the milliliter amount. The patient is allotted 10 to 15 minutes to complete the supplement, depending on the volume. If the patient is unable to take in the necessary dose of nutrition via food and oral supplement within the given time frame, a nasogastric (NG) tube is placed to ensure nutrition delivery. We help patients and families to understand that in the context of an eating disorder, "food is medicine." The tube is not meant to be a threat or a punishment but rather a tool to provide the medical intervention the patient needs when oral intake has been too difficult to achieve on their own. When an NG tube is needed, it is left in place until the patient has been able to take in 100% of their nutrition orally (food or supplement) for at least 24 hours.

FIGURE 1. QR Code for Inpatient Nutrition Recovery for Children Guidebook



To ensure that energy intake is directed toward organ recovery and weight restoration, energy expenditure is limited as much as possible via activity restriction. For the first 24 hours, the patient is placed on bed rest with assistance to the bathroom. This measure also helps to prevent falls related to syncope or cardiovascular compromise, which are more commonly encountered near the start of admission. Activity is gradually reintroduced with time spent in a bedside chair, seated showers, 30-minute wheelchair rides, and attendance at child life or music therapy events, all based on the clinical assessment of stability for each activity. Exercise of any kind is prohibited and patients are monitored for subtle exercise attempts such as pacing, squatting, or leg lifts in bed. Bathroom use is supervised with the door cracked open, with direct visualization expected for hygiene activities like teeth brushing and hair care but listening only for toileting and showering. These measures allow staff to monitor for purging, exercise, or fluid loading and to observe for signs of distress or syncope. Patients are encouraged to use the bathroom before meals or snacks, and bathroom use is discouraged for 1 hour after.

Throughout hospitalization, the CL team provides psychoeducation and psychotherapeutic support to the patient and family as they navigate the protocol. Because of the high comorbidity of eating disorders with other psychiatric conditions, a thorough diagnostic evaluation is conducted upon admission, with a special focus on safety assessment.[6,7] In cases where active suicidal ideation raises imminent safety concerns, we institute our hospital's suicide precautions protocol and reassess daily the need for maintaining that level of care. Suicide risk management also becomes a specific part of the treatment plan, including potential need for a higher level of care after medical stabilization or formal safety planning and lethal means restriction in the discharge planning process.

Many patients experience high levels of anxiety around mealtimes, especially as food volume increases or as patients detect changes in how their body looks or feels upon gaining weight. When anxiety and distress become so overwhelming as to affect the patient's ability to eat or otherwise engage in necessary cares, or when distress manifests in severe behavioral dysregulation or aggression, psychotropic medication support can be helpful, either on an as-needed basis or scheduled. When medications are initiated, it is understood that this intervention is likely time limited during this high-acuity period. Medication targets symptom management and psychiatric comorbidities rather than serving as a primary intervention for the eating disorder itself, recognizing the lack of support in the literature for the efficacy of psychopharmacology in longer-term eating disorder treatment.[8] The goal is to enable the patient to restore nutrition enough to engage in evidence-based therapies post discharge. Hydroxyzine and olanzapine are the most frequently utilized medications, with aripiprazole used occasionally and selective serotonin reuptake inhibitors sometimes initiated to address comorbid depression or anxiety.

The CL team typically provides patients with psychotherapeutic worksheets relating to insight, self-reflection, and coping, and uses those worksheets as platforms for deeper discussion. For many patients, however, malnutrition is so profound that their ability to engage with executive function–related tasks and higher-order thinking around emotion regulation are significantly impaired, with limited insight into the need for treatment. We advise patients and families that the primary goal during medical hospitalization is to restore nutrition and that mental health interventions at this acute point are purposely focused on psychoeducation and broad emotional support; these are the aims that malnourished brains are best able to target. Therapeutic interventions integrate aspects of family-based treatment (FBT) related to externalizing the eating disorder and promoting parental management of meals and nutrition. When patients do demonstrate insight and interest in processing the emotional and cognitive side of their illness, we do our best to engage in brief and focused psychotherapy as often as possible within the constraints of a busy consultation service. Ultimately, helping to coordinate longer-term mental health supports at the appropriate level of care upon discharge is the most impactful mental health intervention.

Readiness for discharge is determined on a case-by-case basis, but generally is considered when vital signs have improved; short-term labs have normalized; the patient is eating adequately at goal calories (taking oral supplement is occasionally acceptable, depending on percentage of intake coming from supplement alone and the anticipated next level of care); a clear weight-gain trend is noted (if needed); and a follow-up plan is in place. Families meet with the RDN prior to discharge to ensure they understand the caloric needs of the patient and how best to meet these needs with an at-home meal plan. The treatment team coordinates with schools and universities, with permission of the patient and family, to provide guidance on safely acclimating back to typical routines or to request accommodations or temporary academic deferrals.

Most patients discharge to outpatient care, a partial hospitalization program (PHP), or an intensive outpatient program (IOP), sometimes in person and sometimes virtually. We are fortunate to have access to an excellent multidisciplinary care center at our own institution, the Comprehensive Eating Disorders Program, which offers an FBT approach at the PHP, IOP, and outpatient levels. For more acute needs, patients might transfer to an inpatient psychiatric unit or discharge to a residential treatment center.

Psychoeducation and Family Communication

Immediately upon admission, the primary team provides the family with our internally developed guidebook, *Inpatient Nutrition Recovery for Children*. This 40-page booklet relays information about the multidisciplinary care team, what is happening medically and psychologically relating to the eating disorder, what nutrition recovery entails and why it is important to monitor closely throughout, how the protocol works and why limitations are set, helpful things for parents to say and do, pitfalls to avoid, general information about planning for discharge, and a list of external resources for families to access.

The book was written and edited by a multidisciplinary work group and was processed through our institution's Plain Language Review Board to ensure broad accessibility. With a small internal grant for patient education, we funded professional graphic design and binding for the book and obtained 300 hard copies to distribute. Future goals include translation of the guidebook into additional languages. Families have provided positive feedback about the value of the book in addressing their questions and alleviating their distress about hospitalization. We welcome others to freely access and distribute the digital booklet (see **Figure 1** for QR code).

Alongside the guidebook, the grant funded the creation of a professionally produced a 12-minute video, *Managing Eating Disorder Behaviors,* that addresses helpful ways for families to manage common eating disorder behaviors. The video features actors portraying a mother and daughter sitting through a meal and outlines strategies for handling negotiation attempts, food diversion, and emotional outbursts. For hospitalized patients, the video is preloaded onto an internal network that offers informational videos pertinent to each patient's presenting concerns on the television in their hospital room. Caregivers are also provided with a QR code linking directly to the video so they can watch it on a personal device away from their child (see **Figure 2** for QR code).

Acute Behavior Dysregulation

It is not uncommon for patients to demonstrate significant behavioral dysregulation during the refeeding process, manifesting as emotional or verbal outbursts, throwing food or other objects, physical aggression toward others, self-harm attempts, or tampering with or removing the NG tube, and this remains an important challenge for care. When verbal de-escalation measures and environmental interventions alone are insufficient, our care team works together with the patient and family to devise a structured behavioral plan (eg, access to electronics or other preferred activities contingent on maintaining safe behaviors and engaging in cares). We are fortunate to have a skilled behavioral support nurse on the CL team who can sit with patients and families during meals and help with coaching and distress tolerance. Oral medications can be helpful for addressing anxiety and agitation. Intramuscular medication is occasionally necessary to ensure the safety of the patient and others around them.

On rare occasions, patients refuse NG tube placement or go to great lengths to disrupt or remove the tube once it is placed. We have seen patients try to cut or chew through the tubing or pull it out completely, even when bridled. If these behaviors are not manageable with the previously mentioned interventions, *and* they prevent us from delivering necessary nutrition in the context of severe medical compromise, we sometimes employ physical restraint to ensure that the patient receives the imperative medical care. In these instances, we first consult the Pediatric Ethics Committee and convene with the multidisciplinary team and family to discuss the safest and most appropriate approach to the intervention. Even for minors, whose parents ultimately make medical decisions, we are thoughtful about valuing patient autonomy and the importance of assenting to care. Acknowledging the effects of malnutrition and the eating disorder itself on the patient's ability to recognize the need for treatment, we work to balance self-determination against the imminent risk of serious medical complications or death. Furthermore, we consider the psychological effects of physical restraint, especially in the context of the patient's past mental health history and any previous experiences with restraint or forced care. We aim to make the most compassionate *and* medically safe decision possible in each context.

Modifications to the protocol or changes to the level of staffing are often instituted before proceeding to forced use of an NG tube, and we have had several cases in which these alterations have successfully allowed us to restore nutrition safely without using physical restraint. When implemented, restraint is used only for the duration of the time needed to place the tube and safely administer nutrition; a patient would not be left in restraints between meals for the sake of maintaining the integrity of the tube. If needed, formula administration is consolidated and clustered as is safely possible given the volume to reduce the number of tube administrations or time needed in restraints.

FIGURE 2. QR Code for Managing Eating Disorder Behaviors Video

Typically, this level of behavioral dysregulation occurs in the context of the most severe cases of malnutrition, and we see significant and rapid improvement as the brain is refed. After extreme behavioral exacerbations requiring intensive interventions, we prioritize debriefing and processing with staff across disciplines, acknowledging the moral distress that can come with providing care in these difficult situations.

Decisional Capacity

Implementing the protocol and eliciting patient engagement can be especially challenging for 18- to 24-year-olds, as these patients typically have legal decision-making rights over their care (unless under guardianship/conservatorship). Questions regularly arise regarding the decisional capacity to decline an NG tube or dispositional capacity to leave the hospital before it is medically safe to do so. We can divide these patient types conceptually into 2 groups: those who live at home with their parents (and may still be in high school) or are otherwise dependent on their caregivers, and those who live independently as working adults or college/university students who do not rely on family support for daily living.

For the first group, parents who align with the treatment team in recognizing the need for care can support their child's recovery by declining to take them home if the child wants to leave the hospital or enacting firm limits and other forms of "tough love" to encourage their child's participation in care. In the context of an eating disorder, this may include not paying for cellular telephone service, removing access to preferred activities, or withdrawing tuition support for college/university. We try to help parents and patients understand that these measures are not meant to be punitive but to guide the patient toward sound decision-making when the eating disorder and malnutrition are clouding their judgment. In fact, when parents take these steps to help their child's recovery, they are actively working toward enabling the young adult to regain autonomy, not just with respect to food but also in other aspects of their life that may have been commandeered by the eating disorder.

For young adults who live independently, or for situations in which the parental intervention approach is not possible or is ineffective, questions related to compelling care are more difficult. Comprehensive psychiatric assessment of capacity is required in each case and for each decision point as it cannot be generalized that the presence of a severe eating disorder (or severe malnutrition) *necessarily* compromises decision-making capacity. Additionally, the risk level for each decision is crucial, especially as it pertains to leaving the hospital before reaching medical stability. Discharging to an apartment with roommates, a sedentary job, established provider connections, and a grocery delivery service is very different from transitioning to a solo apartment with out-of-state parents, a limited friend base, no established care providers, and an on-your-feet job or full academic course load. For students, support through their college/university may also be activated to enhance their support network, including academic accommodations, school-based health programs, and residential advisers. To the extent that patients are willing to engage, we partner with them to mitigate the risks as best as possible before we consider discharging against medical advice.

Sometimes, we send patients out with the expectation that we will see them again in the ED very soon, hoping that we can be more effectual with our help the next time. For cases in which

patients truly do not demonstrate capacity or willingness to collaborate to mitigate risk, *and* medical compromise is so severe that the only medically safe decision is to continue treatment in the hospital, we again consult with our Ethics Committee, Clinical Risk and Patient Relations, and our Office of the General Counsel as pursuit of emergency medical guardianship (either by family or a third party) may be necessary.

Notably, significant debate continues around the concept of involuntary or compulsory treatment for AN, with varied opinions from medical, ethical, legal, philosophical, psychological, and societal perspectives.[9] As providers, our goal is to care for the patient before us. We do our best to act responsibly, compassionately, transparently, and within the bounds of our professional ethics. We learn from every case and we always strive to improve.

Barriers to Discharge Planning

Unfortunately, resources for eating disorder care are limited and wait lists are long. When transitioning to outpatient-level care, we typically can arrange for weekly weigh-ins and vitals checks at the primary care office, but mental health supports are more challenging to align quickly. Sometimes, the inability to arrange for appropriate outpatient therapy within a reasonable time frame pushes us toward PHP or IOP as the best discharge plan.

In Southeast Michigan, we are fortunate to have several options for PHPs focused on eating disorder care, though only 1 of them (our own) operates under an in-person, family-based treatment model. There are a number of common barriers to accessing any of these programs, including insurance coverage, patient age, and geographic limitations; driving more than an hour each way—twice daily—is often not feasible for working families. Additionally, BMI/weight at discharge can be a limiting factor, as many programs will not accept patients below a BMI of 15 or weight less than 80% of estimated goal. Our own program can be more flexible around this metric as we have ready access to AM, specialized nursing, and the hospital itself. When weight or BMI affect placement options, we must consider prolonging hospitalization to achieve the necessary weight gain vs discharging home for weight restoration, which can be onerous on families and often results in readmission.

When psychiatric hospitalization is needed, either due to comorbid safety concerns, comorbid psychiatric illnesses, or psychological factors impeding the patient from progressing past tube dependence, our options are significantly limited. Only 2 psychiatric units in our state (ours included) can accommodate NG tubes or will consider admitting patients with an active eating disorder diagnosis. Payer coverage is also challenging, especially if there is not a clear suicide risk. Payers will often authorize only 1 or 2 days of treatment in the context of an eating disorder, which offers little value in helping the patient to progress. If the psychiatric inpatient team cannot successfully advocate for additional covered days, then the options amount to hastening the discharge, billing the family, or (more commonly) positioning the hospital to absorb the cost. Ultimately, clinical need guides decision-making around inpatient psychiatric admission, but the coverage constraints can certainly burden families in an already stressful situation, and they highlight a clear inequity in the provision of care for this population.

For patients who need residential care, there are no eating disorder–specific facilities that accept children in our state. Medicaid will not cover out-of-state residential care, leaving publicly insured patients without any options. For those with private insurance coverage or who can self-pay, we look regionally or nationally, which involves significant care coordination and supplemental cost to the family for transportation and local lodging. Once again, equitable access to care is a clear problem. Another significant barrier is that the patient must agree to enter the residential program voluntarily, even in cases when the parents are the legal guardians and decision-makers. We have seen many patients 18 years and older refuse residential treatment entirely or check themselves out prematurely, leaving their families with little recourse and often prompting repeat medical admission.

Concluding Thoughts

Caring for patients with malnutrition due to eating disorders presents significant challenges related to patient insight and buy-in, behavior management, and longer-term care planning. Despite these challenges, inpatient medical admission often serves as the first step in recovery and may be perceived as a wake-up call by both patients and families.[10] Implementing a formalized CPG and disseminating standardized psychoeducation materials to patients and families has unquestionably improved the process at our institution. Still, we continue to face challenges in this space. We are hopeful that the resources needed to support patients with this illness can grow and develop at a rate commensurate with the clear increase in disease burden we are all experiencing across the country. We welcome questions, discussion, and open distribution of our materials.

Dr Pierce is the medical director of the Pediatric Consultation-Liaison Psychiatry Service and the child and adolescent psychiatry hospital education lead at the C.S. Mott Children's Hospital, University of Michigan Hospital Systems. She is also a clinical assistant professor in the Department of Psychiatry, Division of Child and Adolescent Psychiatry. **Dr Stoody** is an assistant professor at the C.S. Mott Children's Hospital, University of Michigan Hospital Systems. **Dr Cwynar** is a dual-certified pediatric and psychiatric mental health nurse practitioner. She has worked on the Child and Adolescent Consult and Liaison Service at C.S. Mott Children's Hospital, University of Michigan Hospital Systems, since 2016. **Ms Khan** is the lead social worker for the child psychiatry hospital section and a clinical social worker on the Pediatric Consultation-Liaison Psychiatry Service in the University of Michigan Hospital Systems. **Dr Bravender** is the David S. Rosen Collegiate Professor of Adolescent Medicine and clinical professor of pediatrics and psychiatry at the University of Michigan. He also serves as associate chair for faculty affairs in the Department of Pediatrics, Division of Adolescent Medicine director, executive director of the Mott Comprehensive Eating Disorders Program, and comedical director of the University of Michigan Adolescent Health Initiative.

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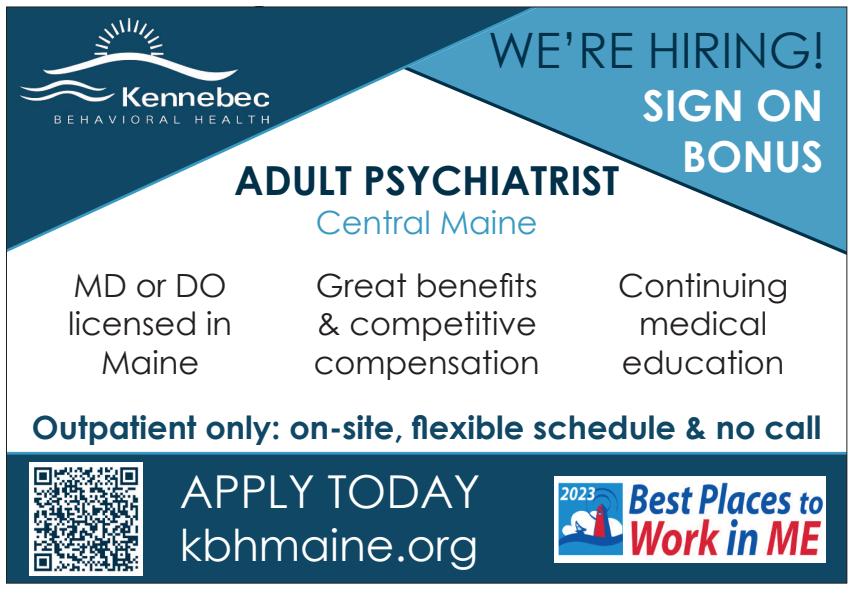

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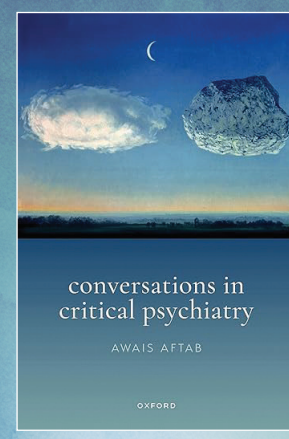

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