Revisiting the Hallucinogenic Potential of Ketamine
A Case Built on Current Research Findings

Ketamine has caused quite a stir in psychiatric practice. Sub-anesthetic administrations of ketamine have been shown to markedly improve symptoms of depression and anxiety. While the growing off-label use of ketamine speaks to the need for novel approaches to psychiatric care and treatment-resistant illness, it also presents an ethical dilemma, wherein widespread adoption has once again leaped ahead of scientific understanding.

The current literature suggests that therapeutic effects of ketamine involve modulation of glutamate neurotransmission, α-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) receptor potentiation, downstream influences on neurotrophic signaling cascades and neuroplasticity, and functional changes in assorted neural networks. Additional work is necessary to clarify the importance and reliability of these biological findings.

Another arc to the ketamine story dates back to a decades-old era of psychedelic research and search for medications with transformative power. Indeed, although primarily conceptualized today as a dissociative anesthetic, ketamine has also been classified more broadly as a hallucinogen. Hallucinogens function by various pharmacological mechanisms.

Handgrip Strength and Cognitive Performance in Schizophrenia

Handgrip is a simple proxy for muscular strength and a clinically useful measure of muscular function. A weaker handgrip strength is associated with poorer quality of life, increased mortality, and poorer cognition—including cognitive decline—in aging populations. The neurophysiologic underpinnings of the relationship between handgrip strength and cognition are unclear. Higher total brain volume is associated with greater muscle size but not necessarily with muscle strength. Increased handgrip strength is associated with fewer age-related white matter hyperintensities in the brain. Another potential mechanism is inflammation, as both age-related cognitive decline and weaker handgrip strength are associated with higher levels of inflammatory markers.

Whether the association between handgrip strength and cognition generalizes to other non-aging populations, including patients with psychiatric disorders, is unknown. In particular, no previous studies have investigated the association in patients with schizophrenia, which is associated with a broad range of cognitive deficits. Firth and colleagues used population-scale data to investigate the relationship between maximal handgrip strength and cognitive performance.
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APA Dreamin’, on a Summer’s Day

Allan Tasman, MD | Editor in Chief

There was a lot to digest from the recent APA Annual Meeting in New York, and I’m still at it. There were many terrific aspects of what I believe is by far the most diverse, comprehensive, innovative, and overwhelming psychiatric convention in the world. I still remember that I felt the same way at my first APA convention in Anaheim (“Psychiatrists in Fantasyland” was the headline in Time magazine). And that program probably had about 20% of the presentations and presenters as this year’s meeting. Thanks to this year’s scientific program chair, Linda Worley, and to Phil Muskin, current APA secretary, who during his long tenure as scientific program chair introduced many of the innovations in format from which we’ve all benefitted.

Before I get to other content, please indulge me as I take a few lines to show some avuncular pride. The Convocation of Fellows is one of the most beloved parts of the meeting, as hundreds of members are honored for their professional accomplishments. Among the most important of these recognitions are the annual Distinguished Service awards.

My heart swelled as I saw on the stage one of this year’s awardees, Michelle Riba. Most of you know Michelle as a past president of APA, a transformative leader in consultation liaison psychiatry, and the Deputy Editor of Psychiatric Times, but I know her also as one of my former trainees when I was residency director at the University of Connecticut.

A special honor is bestowed on the person selected to give the Convocation Lecture. I was filled with pride when I learned Elinore McCance-Katz was selected this year. Most of you know Ellie for her public mental health and substance abuse leadership roles in several states and as the new Assistant Secretary for Mental Health and Substance Abuse. She’s the first office holder for this newly created position, the senior administrator at SAMHSA and the highest ranking psychiatrist in the federal government. I was nearly overwhelmed during her lecture when I was mentioned as the mentor who helped her decide on a career in psychiatry during medical school and in her future career path when she was my resident at UConn.

Nights like that one come rarely in life so I had to reflect here on the convocation. I hope you’ll excuse me for that indulgence, but now on to some comments about the rest of the meeting presentations. This is of course a very personal and extremely abbreviated list.

I was pleased to see a burgeoning presence of discussions of cultural issues in psychiatric diagnostic assessment, treatment, and training. As much as we might talk about it, I don’t think we talk about it nearly enough. One reason such attention is necessary is that this is the period of the largest mass migration of people in recorded history due to many natural and man-made disasters, making these conversations more urgent than ever. Even in a moderate-size city in the Midwest like Louisville, we use translators in our clinic for over 50 languages. It’s gratifying this topic has increasing visibility with the aim to increase our cultural competence.

There is, though, another aspect of this topic that is under-represented: implicit bias. Those of us who practice any form of psychotherapy spend a good deal of our time with patients in trying to understand how they are affected by unconscious motivations, affects, and cognitions. And, we acknowledge that to do that work well we must maximize our own self-awareness and self-reflective capacities. But self-reflection alone isn’t often enough to better understand our own implicit biases: racial, ethnic, gender, sexual, gender orientation etc. I was pleased that this was an important topic in the Presidential Symposium, Diversity issues in Psychotherapy, in which I participated.

For example, I’ve been asking myself for years why there are so few African American psychiatrists in the US, and many fewer in leadership. When I was a residency director, granted perhaps too long ago to reference, one prevailing theory was that this recruitment gap reflected the high level of stigma about mental illness in the African American community, which was not adequately addressed for that student population during medical school.

I’ve been pretty sure that’s not the only reason, and that implicit bias in academia plays some role. If you find this hard to believe, you would have been convinced otherwise by listening to the presentation in our symposium delivered by Deborah Cabaniss, a faculty member at Columbia, and her resident supervisee, Rachel Tall-ey. This is an area of discussion that needs much more presence throughout the field, not only in our academic programs or the APA meeting.

I’m certainly not suggesting implicit bias reflects any psychopathology or conscious malintent; biases are an intrinsic part of human nature. I’m only suggesting that better self-awareness is always helpful especially when it pertains to often touchy subjects such as subtle racial, ethnic, gender, sexual orientation, and similar areas. We unfortunately already know too well how unrecognized racial bias has played a corrosive role in medical research.

There also were fascinating discussions in New York about the emerging use of augmented reality in training, and the use of increasing digital complexity and capability throughout psychiatry. One presenter talked about a virtual reality based standardized patient education experience—the technology now exists to subtly alter patient characteristics such as personality traits, mood, cognition, and facial expressions to provide small alterations in the patient’s presentation. Thus, a very sophisticated training experience in diagnostic assessment, interviewing skills, and psychotherapy skills could be implemented. This is only one example of an exploding area of psychiatry.

A number of presentations on collaborative/integrated care were on the program, although we’re still a long way from finding a single best model for both implementation and sustainability. There was again a paucity of presentations about any new breakthrough medications, with the possible exception of ketamine. New medications, other than minor tinkering with existing compounds, still seem off in the future. And, while burnout was a priority of Anita Everett, the APA immediate past president, and although there were a large number of sessions devoted to this topic, there’s still no generalizable solution for any individual psychiatrist. In fact, in my work on addressing burnout in my own medical school, what I’ve learned is that without systemic and institutional level changes, individual interventions are likely to be incompletely effective (think HER).

There’s one more area that was notable for its lack of prominence or sense of urgency: suicide prevention, especially regarding adolescents. To illustrate, in the new research listing of topics in the program guide, suicide and risk prevention had one of the smaller number of presentations. And, suicide was the topic of only one of the keynote lectures, and that was on development of subtyping biomarkers.

In my February Psychiatric Times editorial I wrote about the burgeoning suicide rate in the US. I emphasized how the adolescent suicide rate had been increasing and had reached nearly a 30-year high. The news in recent weeks has had many stories about how the rate has increased yet again. Furthermore, the news in May about a medical student suicide and a psychiatric resident suicide within several days of each other at NYU medical school is alarming. It shouldn’t take having a Surgeon General like David Satcher to do something about this personal, familial, and public health emergency. I think the APA needs to make this a priority, as I’m pretty sure there’s not currently any other source of impetus that would carry as much weight.

So, like every year, there’s more food for thought and action at the APA meeting than is easily or quickly metabolized. And there’s a great deal I didn’t have enough space to discuss. Summer’s a good time to digest and reflect on the richness of our field and how we can implement advances in our own work. I hope you have a chance to do that.

Reference
Congratulations Dr Michelle Riba

At this year’s American Psychiatric Association Annual Meeting in New York City, Michelle Riba, MD, received the Distinguished Service Award. Established in 1964, the award honors an individual or organization for exceptional service to the field of psychiatry.

After working with her for several years, we can attest to her outstanding service, not only to psychiatry but to Psychiatric Times as well. We congratulate Michelle on earning this much deserved award and thank her for the innumerable contributions that she has made to Psychiatric Times. As the first ever Deputy Editor of Psychiatric Times, Michelle’s ideas and support have been integral to the continuing success of this publication. She was instrumental in helping us establish relationships with major psychiatric subspecialty organizations, such as the Academy of Psychosomatic Medicine (APM); and advising us on compelling series such as the one we did on suicide in college students.
Ketamine Potential
Continued from Cover

of action but exhibit similarities in their ability to occasion temporary but profound alterations of consciousness, involving acute changes in somatic, perceptual, cognitive, and affective processes.

Current biological theories involving ketamine’s antidepressant effect may be inseparable from these non-ordinary experiences of consciousness, but we can only know the answers to questions we ask. Here we examine findings from contemporary research that hint at the unexplored hallucinogenic potential of ketamine and considerations for future investigation.

Hallucinogenic psychedelics

There has been a resurgence of interest in hallucinogenic psychedelics (eg, psilocybin, lysergic acid diethylamide (LSD), mescaline, N,N-Dimethyltryptamine (DMT)) and entactogens (eg, 3, 4-methylenedioxymethamphetamine [MDMA]) in psychiatric research, which are hypothesized to achieve clinical benefit due to, in part, experiences of altered consciousness and fundamental shifts in mental frameworks.

These drugs have been associated with cognitive states of enduring personal importance and have been compared with mystical experiences that might emerge over the ordinary course of life and carry sacred or spiritual meaning. Furthermore, these experiences may powerfully influence existential concepts of self, including moral values, self-identity, and purpose. There is converging evidence that these psychedelic effects are mediated in part by activity at SHT-2A receptors. Ketamine may induce alterations in consciousness and personal frameworks similar to those achieved by serotoninergic psychedelics while also sharing a common glutamatergic pathway of drug effect. However, there has been little investigation into how such changes might mediate the therapeutic potential of ketamine.

Preliminary data suggest that ketamine produces meaningful, transformative experiences that may help patients accept healthier values, behaviors, and beliefs related to abstinence from drugs and alcohol. Other evidence suggests that dose-related mystical-type experiences mediate the effects of ketamine on motivation to quit in cocaine-dependent research volunteers. Few recent studies have examined whether ketamine’s hallucinogenic properties are implicated in antidepressant effects; however, psychiatric vulnerabilities to depression plausibly involve an existential dimension. This dimension includes depressive symptoms of hopelessness, guilt, and suicidality, which appear to be ketamine-sensitive.

The evidence

Given the paucity of modern literature exploring the psychedelic and mystical properties of ketamine in depression, more widespread data on psychotomimetic and dissociative effects of ketamine provide some initial groundwork. Berman and colleagues and Zarate and colleagues suggested that the antidepressant effects of ketamine (0.5 mg/kg over 40 min) were disconnected from ketamine-induced psychotomimetic symptoms. The antidepressant effects, measured by the Hamilton Depression Rating Scale (HDRS), were significant even after positive symptoms on the Brief Psychiatric Rating Scale (BPRS) returned to baseline. However, it was also noted that initial changes in BPRS positive symptom scales from baseline tended to predict a greater decrease in HDRS scores within a day of treatment with ketamine.

A small study further demonstrated a substantial relationship between psychotomimetic effects 30 minutes after ketamine administration (0.54 mg/kg over 30 min) as measured by BPRS and antidepressant effects in the following week. A larger study involving 108 patients found that dissociation measured by the Clinician Administered Dissociative States Scale (CADDSS) at 40 minutes was associated with HDRS score improvement at 230 minutes and 7 days after infusion. Although no relationship between initial BPRS subscale scores and antidepressant effect was found, a correlation between CADSS and BPRS scores was found at 40 minutes postinfusion.

In a small study by Valentine and colleagues, the proposed correlation between ketamine-induced dissociation and antidepressant efficacy was not observed. However, a larger analysis found that greater intra-infusion dissociation as measured by CADDSS was one of the strongest predictors of extended antidepressant response. Both of these studies utilized a single 0.5 mg/kg ketamine infusion delivered over 40 minutes.

Further investigation is needed, but there is an emerging rationale for a connection between the psychotomimetic or dissociative effects of ketamine and its antidepressant efficacy. Perhaps the experience of these effects simply un-blinds patients as to whether they are receiving ketamine or placebo in randomized trials; it may also be that such symptoms are only a “side effect” of ketamine’s mechanism of action. However, it is also worth considering that the psychotomimetic or dissociative effects associated with ketamine treatment are markers or mediators of subjective experiences of potential therapeutic value seen with other hallucinogenic agents.

Recommended dosing

The recommended doses of ketamine for anesthetic induction are typically 1 to 4.5 mg/kg IV and 6.5 to 13 mg/kg IM, with alternate, off-label recommendations for 0.5 to 2 mg/kg IV and 4 to 10 mg/kg IM, primarily in the context of adjuvant drug use. For use in depression, ketamine is most commonly administered at a sub-anesthetic dose of 0.5 mg/kg IV across 40 minutes.

Interestingly, in a study of electroconvulsive therapy (ECT) and anesthetic induction with either a near-anesthetic dose of IV ketamine (0.8 mg/kg) alone, sub-anesthetic ketamine (0.5 mg/kg) plus propofol (0.8 mg/kg), or propofol alone (0.8 mg/kg), predicted a more rapid antidepressant effect and a higher remission rate than propofol use. The near-anesthetic dose of ketamine was associated with superior antidepressant effects than the mixed, sub-anesthetic dose.

In a study of ketamine alongside psychotherapy for heroin addiction, Krupitsky and colleagues compared the effects of 2 doses of ketamine (0.2 and 2.0 mg/kg IM) and found that only the higher dose was associated with a “full psychedelic experience” as measured by the Hallucinogen Rating Scale (HRS).

The lower dose was considered a “sub-psychedelic” active placebo, but was nonetheless associated with some positive drug effects: patients were still affected by their experiences and considered them useful and therapeutic. The high dose group ultimately experienced higher rates of abstinence, greater effect on emotional attitudes related to abstinence, and lower rates of relapse and drug craving than the low dose group. Both doses resulted in post-treatment reductions in measures of depression and anxiety; there were no significant differences between the groups.

Similarly, Dakwar and colleagues compared the effects of 0.41 mg/kg and 0.71 mg/kg doses of IV ketamine given to cocaine-dependent patients. Dose-dependent mystical-type effects as measured by Hood’s Mysticism Scale (HMS) were seen as well as a relationship between HMS scores and the motivation to quit cocaine 24 hours post-infusion.

A different study involving a lower dose of intramuscular (IM) ketamine did not generate the same mystical-type phenomena. Perhaps these results highlight the importance of calibrating dosing and delivery. Clements and colleagues demonstrated that ketamine had reduced bioavailability with IM administration compared with IV administration. Taken together, these findings support the idea that positive treatment outcomes for ketamine may be dose-dependent and its psychoactive effects are based on delivery parameters.

Limitation

One criticism of ketamine has been its short duration of antidepressant effect, with benefits peaking at 24 hours post-infusion and generally subsiding by 72 hours. The most promising approach to this challenge thus far seems to be the strategy of repeated-dose ketamine infusions, which have observed extended time-to-relapse and increased rates of antidepressant response.

If ketamine’s therapeutic effect is indeed mediated by psychoactive experience, it may be that repeated dosing (CONTINUED ON PAGE 21)
What is the scope of psychiatry as a medical practice? Is it just therapy or psychopharmacological modality of practice? Is it confined to the hospital or traditional outpatient clinical setting? Should it continue to just conjure up the image of a couch in a private practice room? Is psychiatry limited to urban centers or community clinics?

I would argue that psychiatry is all of these and much more. As a medical field, it is unique in that it can claim to be both a primary care and a specialty care discipline at the same time. Our scope can extend beyond our traditional roles in a medical setting and is well suited to be practiced in wide ranging collaborative, innovative, and integrated models of care. We can be contributors in the basic sciences laboratory and to society at large. The richness of how psychiatry can be applied and contribute in our community is the focus of our special issue.

With the rise of information technology, psychiatrists can provide evidence-based care to remote, underserved areas with ease. One of telemedicine’s first application was in mental health and we continue to push the boundaries in how psychiatry is delivered.

As discussed by Dr Saeed, psychiatry has moved beyond using telemedicine as just a tool in reaching distant areas. It is now being integrated in mobile personal devices, leveraging application tools and has linked diverse providers. It has also evolved into a specialized delivery system to support diverse clinical-care models. Allowing for more flexibility in how psychiatry can be delivered, telepsychiatry has blossomed into a potent tool in our drive to increase access to high quality care.

The positive impact of psychiatry can be found in places many may not expect. Our work is not just about dealing with mental illness but also promoting mental well-being. As such, our input is valuable in settings outside of traditional medical buildings and clinics. As illustrated by Dr Gabrielian’s article, involvement of psychiatrists in supported housing can lead to great improvements in success of a homeless client—this is truly a patient centered delivery of psychiatric care.

In looking at societal impact on health, psychiatry can contribute to the ongoing dialogue about poverty and mental well-being. In “Addressing Poverty and Mental Illness,” Drs Simon, Beder, and Manseau, use a case vignette to illustrate the ways in which a psychiatrist can best impact those in poverty. They don’t just focus on clinical outcome of an illness but take on the total human experience.

Finally, Dr Davidson and colleagues make an argument for peer support. As psychiatrists, we can partner with our patients in leveraging their strengths and experiences to help others. This collaborative approach with peer support should be encouraged and can serve to extend psychiatry’s reach to those who continue to be underserved and stigmatized.

In this Special Report, the topics may seem diverse and wide-ranging. However, this is precisely the point. Psychiatry can contribute in ways that some medical fields cannot. It comes down to the fact that our work boils down to alleviating the suffering of the human condition itself. As psychiatry evolves, we should be encouraged by the fact that our work is not limited by traditional confines of medicine.

Dr Koh reports no conflicts of interest concerning the subject matter of this Special Report.
Reflections on Psychiatry in Supported Housing

Sonya Gabrielian, MD, MPH

As a psychiatry resident, I worked at a community service agency in Los Angeles, treating chronically homeless patients with serious mental illness and substance use disorders (SUD) as they transitioned into permanent, community-based housing with supportive services (“supported housing”). Naively, I expected to see decreased mental health symptoms when these patients became housed. Instead, I was struck by their range of mental health outcomes and variable levels of success using supported housing to exit homelessness.

Today, as a psychiatrist who treats and studies adults who are experiencing homelessness, my patients continue to inspire important and unanswered questions: What factors predict if a homeless person will be able to engage in supported housing to attain and retain an apartment? What supportive services facilitate permanent exits from homelessness?

Financial subsidies
At a national level, the Department of Housing and Urban Development (HUD) recognizes housing status as a critical determinant of physical and mental health. After developing federal housing projects that unintentionally evolved into concentrated islands of poverty, HUD embraced the notion of “mobility” for homeless individuals or persons at risk for becoming homeless, offering Housing Choice (Section 8) vouchers to mobilize persons with socioeconomic disadvantage into “mainstream” communities.

For low-income persons, Housing Choice vouchers subsidize rental costs in apartments available to the public at large. Voucher recipients pay a portion of their income towards rent and the remainder of costs are subsidized by local Public Housing Authorities (not-for-profit entities that work with local governments and agencies to develop housing strategies for communities). Supported housing, which offers independent, permanent housing with supportive services, is an evidence-based practice to address homelessness. Patients with mental health problems have increased risk for becoming homeless and often do well in supported housing settings.

房屋状态是确定物理和医疗健康的一个重要变量。财务补贴通常会提供给永久性住房以帮助无家可归的人群。这种干预措施会增加在稳定住房中居住的机会，减少物质滥用和矫正设施的使用。它与社会 - 精神疾病的严重程度和/或 SUD—-一个示范性项目在 2010 年比较支持性住房参与者和个体在传统的 “准备好居”项目中参与。参与者的家庭健康状况会得到改善。在精神障碍或物质滥用患者中，支持性住房的参与被证明是提高生活质量的一个重要途径。此外，精神障碍或物质滥用患者在支持性住房中会减少物质滥用和矫正设施的使用。更进一步，支持性住房组在 35 岁至 223 天（分别）中更为重要，支持性住房组的住房率是 8 倍（年龄比 8.3）更可能达到比较组的稳定住房一年。这些数据表明与在支持性住房中处于无家可归的最差家庭成员的有精神疾病和/或 SUDs 可以独立地在他们的社区中生活。

Achieving supported housing
In my first attending job, I worked on an Assertive Community Treatment (ACT) team for “high-risk” homeless individuals—adults who were chronically homeless, with serious mental illness and/or recalcitrant SUD—who sought supported housing. Although the literature touted the benefits of supported housing for this vulnerable population, many of my patients struggled to attain housing; among those that successfully rented an apartment, many had difficulty remaining housed, often ending up incarcerated, on the streets, or in higher levels of care (eg, board and care settings). This experience drove me to examine the research surrounding predictors of success in supported housing. Although challenges faced by psychiatric patients in supported housing programs are poorly understood, this area has been explored in several studies.

A national study of supported housing participants in the VA system employed secondary database analyses (N = 9967) and in-person surveys (n = 508), using logistic regression analyses to identify predictors of achievement of supported housing (ie, the rental of a unit after enrollment in a supported housing program). In this sample, 15% of participants exited supported housing before supported housing placement. Having a schizophrenia spectrum or other psychotic disorder, military service during the Iraq and Afghanistan conflicts, the presence of a disability worsened by or caused by military service (“service-connected disabilities”), or having an Emergency Department visit in the 90 days after supported housing admission significantly decreased success.

(Continued on page 6)
Data suggest that with engagement in supported housing most homeless persons with mental illness can live independently in the communities.

Housing

Continued from page 5

creased the odds of becoming housed. However, receiving outpatient psychiatric or other mental health care in the 90 days before supported housing admission and use of outpatient care in the 90 days after supported housing enrollment significantly increased the odds of achieving housing. This relationship between adherence to outpatient care and supported housing receipt was supported by a related study that we conducted in Los Angeles. Overall, these data suggest that psychiatric disorders closely interplay with service receipt to influence the acquisition of supported housing. Though supported housing cannot mandate engagement in health care, these findings stress the importance of adequate linkages to psychiatric and related mental health care pre- and post-supported housing enrollment, particularly for vulnerable individuals with serious mental illness and/or substance use disorders.

Among persons who achieve supported housing (ie, move into a rental unit), a multi-site, quantitative study identified several factors that increase risk for premature exits from supported housing programs. Specifically, days intoxicated in the month before supported housing enrollment (a proxy for SUD intensity), lower income, and institutionalization history (eg, in the mental health system), were associated with shorter program tenure.

Building from this work, we conducted a mixed methods study of supported housing enrollees in Los Angeles. Our goal was to understand the extent of the general medical, mental health, and psychosocial factors with potential implications for supported housing retention. Nearly all variables relevant to exits from supported housing were linked to mental health problems. A national study corroborated these findings, which suggests that admissions to inpatient SUD treatment settings and psychiatric hospitalizations, along with Emergency Department visits, predicted exits from supported housing into recidivistic homelessness.

Even for persons who achieve and retain supported housing, a fundamental problem remains: “recovery” from homelessness extends beyond the acquisition of permanent housing. Extrapolated from the mental health literature, recovery from homelessness for persons with psychiatric disorders or SUDs encompasses a deeper process of building a meaningful and fulfilling life, with autonomy and social relationships. Yet, little is known about the social support and community involvement of formerly homeless persons who are engaged in supported housing, although findings suggest that supported housing participants remain socially isolated even after achieving housing. Additional work is needed to conceptualize and improve recovery for homeless persons engaged in supported housing.

Conclusion

Despite these challenges and knowledge gaps, I find psychiatric practice in supported housing settings to be immensely rewarding. In mental health clinics with few embedded social services, it is often challenging to treat patients’ depression or other psychiatric symptoms that are closely tied to social vulnerabilities. Sitting with patients who are experiencing homelessness—living in their vehicle or on the streets—and discussing their low mood without concrete resources to offer, can feel immobilizing. In contrast, including permanent, community-based housing with field-based case management—the tenants of supported housing—in a patient’s treatment plan (alongside traditional medication management and psychotherapy) can be immensely powerful. I am continually amazed by patients with serious mental illness—often untreated for years—who engage in supported housing and thrive in their own apartment.

My clinical skills are sometimes inadequate to predict who will succeed and who will fail in independent, supported housing with field-based case management. Psychiatrists are integral members of supported housing teams, working closely with social workers, psychologists, nurses, and consumer providers to engage a population with tremendous unmet mental health needs, but who are often disengaged from care. However, as a community psychiatrist, I often wonder if I practice a different sort of psychiatry than I learned in medical school and residency—care that is centered in harm reduction, the patient’s goals and needs (often focused on housing and social services, rather than mental health symptoms or substance abuse), and building rapport.

Given the robust linkages between social vulnerabilities and emotional health, community psychiatrists have a unique ability to advocate for the underserved, particularly for strengthened linkages between social services and mental health care. There may be value in implementation work to adapt evidence-based practices for psychiatric patients (eg, motivational interviewing, social skills training, and/or critical time intervention) to the context and setting of supported housing. Housing is a critical determinant of health and a fundamental human right; increasing access to supported housing will benefit many of our sickest patients.

Dr Gabrielian reports no conflicts of interest concerning the subject matter of this article.

References

2. US Department of Housing and Urban Develop-
Definitions of poverty vary with social, cultural, and political systems. Attempts to understand poverty from poor people’s perspectives reveal that poverty is a multidimensional social phenomenon. From an epidemiological perspective, poverty can mean low socio-economic status (measured by social or income class), unemployment, and/or low levels of education. Economic inequality and poverty as social determinants of mental health.

CASE VIGNETTE

Sitting in the waiting room talking to herself, Susan looked exhausted and disheveled. Surrounded by her belongings, she waited for her psychiatrist. Since her last visit, Susan has become homeless following a rent increase, she has chronic medical conditions that have gotten worse, she stopped taking her prescribed psychotropic medications, and she has lost contact with the clinic. Thankfully, she has returned for care.

Poverty is one of the most significant social determinants of health and mental health, intersecting with all other determinants, including education, local and social community conditions, race/ethnicity, gender, immigration status, health and access to health care, neighborhood factors, and the built environment (eg, homes, buildings, streets, parks infrastructure). The mental health effects of poverty are wide ranging and affect the health and functioning of people who live there. Neighborhood deprivation has been associated with many of the same mental health outcomes as poverty, even while controlling for individual poverty. Institutional and structural mediators include collective efficacy, socialization by adults, peer influences, social networks, exposure to crime and violence, and safety fears. Individual-level poverty moderates the relationship between neighborhood deprivation and mental health, with poorer families affected more adversely by area-level poverty.

Clinical challenges and practical solutions

The link between increased rates of physical and mental illness and poverty has been well established. And yet, many psychiatrists receive little training in assessing and intervening in poverty. To address risk factors, we must first screen for them. A validated screening question, such as “Do you ever have difficulty making ends meet at the end of the month?” that has a 98% sensitivity and 40% specificity for people living below the poverty line, allows clinicians to identify those who may need further support. To intervene effectively, we also need to ask our clients about other social determinants of mental health, including housing, education, immigration status, and legal concerns.

Psychiatrists may be hesitant to screen for poverty if they do not have ready access to interventions or referrals. Screening should not occur in isolation, especially because most of the remedies for poverty and other social determinants of health or social determinants of mental health lie beyond the health sector. To address the complex effects of poverty on mental health, a 3-level approach to socially accountable care can be used. Psychiatrists can assist patients living in poverty at the micro- (individual, clinical) level, at the meso- (local community) level, and at the macro- (policy and population) level. There have been numerous validated screening tools for poverty created for research purposes. For clinical use, such tools should always be interpreted in the context of what is known about the patient and family. The Table provides an example of a clinical tool that highlights questions

Figure, Age-adjusted percentage of adults with serious psychological distress, by income relative to federal poverty level and by race and ethnicity: United States, 2009–2013

<table>
<thead>
<tr>
<th>Neighborhhood deprivation</th>
<th>Less than 100%</th>
<th>100% to less than 200%</th>
<th>200% to less than 400%</th>
<th>400% or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic</td>
<td>4.7</td>
<td>1.3</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Non-Hispanic white</td>
<td>6.2</td>
<td>3.3</td>
<td>1.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Non-Hispanic black</td>
<td>5.3</td>
<td>2.9</td>
<td>1.7</td>
<td>2.4</td>
</tr>
</tbody>
</table>

1Significantly lower than for other races and ethnicities.
2Significant decreasing linear trend by poverty level.

Source: CDC/NCHS. National Health Interview Survey, 2009–2013

SPECIAL REPORT
psychiatrists can ask when screening for poverty that address different levels of intervention.

In the clinic, at the individual level, mental health providers are well placed to start with a thorough social history, to understand whether clients are accessing all the financial, housing, and support resources they are eligible for, to elicit client strengths, and to listen to what each person says that they need.

The health care and social welfare systems are often challenging to navigate, and it is important to validate the systemic difficulties clients experience. Resources such as Poverty—A Clinical Tool for Primary Care Providers, developed for use within different Canadian cities, can support clinicians and organizations in helping clients to maximize their income. There are similar screening tools including The EveryOne Project endorsed by the American Academy of Family Physicians. And yet, clinicians may not feel confident that their clients can follow through and access support services. For clients with multiple vulnerabilities, enhanced care coordination and case management support, such as social workers, Intensive Case Management, and Assertive Community Treatment (ACT) teams, can assist clients in addressing the social determinants of mental health, along with improving access to medical and behavioral health care.

CASE VIGNETTE (CONT’D)

Susan has “always been anxious,” particularly since the death of her son, and has been unable to work for the past 3 years. However, her anxiety worsened after her eviction. Susan reports insomnia and spends most of the day worrying about many things, including her debt, safety, and when an imprisoned son will be on parole. After first providing her with a drink of water, you find out that she has never applied for any income or housing support. She agrees to restart an antidepressant, and accepts a referral to a local community agency, which helps her apply for unemployment and disability benefits, thereby allowing her to obtain housing. They also ensure that her health care coverage is active. Her anxiety and insomnia subsequently improve.

While assisting individual patients can have a significant impact, the repeated occurrence of poverty in the lives of our clients calls for community-level interventions. Addressing the social determinants of mental health through the health care system is only part of the answer, and creative solutions are needed. At the meso-level, which includes community engagement and education, training, and continuing professional development, mental health professionals can advocate for improved health. For example, they can develop outreach programs that targeted specific populations, they can contact local elected officials about the need for enhanced funding of social services, and they can provide continuing education sessions for their fellow health care professionals.

Systemic barriers are equally challenging and call for macro-level advocacy in solidarity with affected communities. To create upstream change, we need systems-based solutions that go beyond simply encouraging individual clinicians to address social needs. The past decades have seen declining taxes on the wealthy with cuts in social benefits, which restricts the resources available to address social needs effectively. Using a variety of advocacy skills, including everything from writing letters and opinion pieces to protesting on the streets, clinicians can bring an evidence-based lens to efforts to advocate for better housing, more income equality, better access to care, fairer immigration policies, and a stronger social safety net to improve mental health for everyone.

In working with people experiencing poverty, clinicians need to be mindful of the privilege that comes with the role of health care professional. There is a long history of professionals telling people in poverty what they need, without carefully listening to the creative ideas and strengths present in poor communities.
Using Telehealth to Enhance Access to Evidence-Based Care

Sy Atezaz Saeed, MD, MS and Irene Pastis, MD

Dr Saeed is Professor and Chairman, Dr Pastis is Clinical Assistant Professor, Department of Psychiatry and Behavioral Medicine, Brody School of Medicine, East Carolina University, Greenville, NC.

Telepsychiatry has its roots in Europe. In the 1920s and into the 1940s radio consultations were performed between European countries and sailors onboard ships or people on isolated islands who were ill. In the 1950s, radiology images were being transmitted.1 In 1959, the Nebraska Psychiatric Institute was using early videoconferencing to provide group therapy, long-term therapy, and consultation-liaison psychiatry.2 By the 1980s, telepsychiatry was increasingly common.

The New Freedom Commission on Mental Health emphasized the need for prevention and treatment of mental illness so that patients with mental health conditions can receive the care they need and become functional participants in the community.3 The Commission discussed videoconferencing and telehealth as a means of access to care. In 2015, approximately 60 million people in the US were living in rural areas.4 The popularization of telemedicine has been secondary to a direct need to serve these areas.

Benefits and effectiveness of telepsychiatry
The use of telepsychiatry to provide mental health services has the potential to solve the provider shortage problem that directly affects access to care. Telepsychiatry is not only effective and well accepted; it can also increase administrative efficiency while providing positive outcomes in most clinical settings. Hilty and colleagues5 reviewed the published literature on effectiveness of telemental health compared to services provided face-to-face. Their findings suggest that telemental health is not only effective for diagnosis and assessment across many populations and disorders in many settings, but it appears to be comparable to face-to-face care. Telepsychiatry has also been found to be effective in providing access to care for inmates and veteran populations.6,7

In a study that compared telepsychiatry with standard care, participants who received treatment via telespsychiatry had greater response and remission rates.8 Positive results were also seen in a study undertaken in a skilled nursing facility.9 The findings indicate that telepsychiatry provided efficient access to care compared with regular visits by a provider who would need to travel to the nursing home multiple times. A study by De Las Cuevas and colleagues10 also demonstrated the effectiveness of telepsychiatry and how it is equivalent to in-person evaluation. In a literature review of child and adolescent psychiatry articles, Diamond and Bloch11 found telepsychiatry to be equivalent to in-person consultations and no negative outcomes were reported. As evidence continues to emerge in support of telepsychiatry as a means to reach underserved patients, we hope to see it continue to evolve into a widely available method for delivering mental health services.

Telepsychiatry reduces geographic and socioeconomic health disparities; offers better consumer compliance; coordinates care across mental health systems; and improves recruiting and retaining of mental health professionals to work in underserved or rural areas.

Despite empirical evidence for the effectiveness of telepsychiatry when compared with in-person care many psychiatrists are still not at ease with telepsychiatry. Including telepsychiatry in residency training curriculum can help increase the number of psychiatrists who will likely use it in caring for patients.

A recent review of the use of telepsychiatry in graduate medical education concluded that there was a need for a more evidence-based approach to telepsychiatry training and that such a training, if done right, could not only improve clinical outcomes but also promote social accountability, cultural competence, and interprofessional care.12 There appears to be a clear practice gap in the US between resident/fellow interest in telepsychiatry and the didactic curriculum and clinical experiences offered in residency programs. Pedagogical approaches have been proposed that are likely to promote these competencies including an elective that is likely to...

(Continued on page 10)
advance residents’ competence to practice telepsychiatry.13

In addition to the direct benefits of telepsychiatry for patients and providers, other benefits have also been identified, including reducing geographic and socioeconomic health disparities; better consumer compliance, education of mental health professionals, coordination of care across mental health systems; improving in recruiting and retaining mental health professionals to work in underserved or rural areas; and possible reduction of stigma associated with receiving mental health services.14

**Telepsychiatry applications**

Applications of telepsychiatry include both clinical and non-clinical uses such as education as well as administrative and research applications. Clinical outcomes of telepsychiatry interventions are comparable to face-to-face treatment delivered across diverse patient populations and diagnostic groups. For clinical applications, telepsychiatry can be used for both diagnostic and therapeutic applications across the life span. Common applications include diagnostic assessments, pre-hospitalization assessment and post-hospital follow-up care, medication management, psychotherapy, and consultation.

Telepsychiatry consultations can be used for routine as well as for crisis behavioral health cases. It can also be used in the development of clinical care plans, case management, psychological testing, forensic evaluations, and liaison services with other medical specialties. Points of delivery can include hospitals and their emergency departments, clinics, offices, homes, assisted living facilities, nursing homes, schools, and forensic settings. Professional users can include psychiatrists, resident physicians, nurses, social workers, psychologists, and other mental health providers. Practice models can vary from direct clinical service to consultation, as depicted in the Figure.

Telepsychiatry can be effectively used for any number of psychiatric interventions. A review of telepsychiatry for suicide prevention found no difference between use of DBT via teleconferencing versus treatment as usual.14 Telepsychiatry has also been used for cognitive assessments of patients with dementia, and it has been effective in providing care to geriatric patients in rural nursing home facilities.0,16

The department of Veterans affairs has conducted studies on the use of videoconferencing to provide CBT to veterans with PTSD.17 Videoconferencing did not affect compliance with CBT treatments. Study data also show that videoconferencing was a practical way to deliver care to veterans in remote areas without affecting the quality of care provided.

Greene and colleagues18 examined the use of videoconferencing for anger management group therapy. Although the participants displayed decreased alliance towards the group leader, videoconferencing was deemed a practical and effective way of delivering care. Steel, Cox, and Garry19 looked at videoconferencing for the management of long-term conditions. Their data indicate that videoconferencing delivered similar outcomes to in-person care and was a practical way to provide care to rural communities.

### Technology basics

Two-way audio-video communication in real-time—videoconferencing—has become synonymous with telepsychiatry. A provider at a distant site can virtually treat a patient at a local clinical site via live and interactive audiovisual conferencing systems. Historically telepsychiatry applications have used point-to-point network connections; with the rapid diffusion of Internet and Ethernet networks, Internet Protocol (IP) has largely replaced these older point-to-point networks.

Typically, a telepsychiatry setup includes a video camera, microphone, speakers (or headset), and one or two displays at each end of the system. Often, separate displays or a picture-in-picture (if one display) are used to enable participants to see both outgoing and incoming video. A pan–zoom–tilt control of the video camera is preferred that allows the clinician to control his or her view of the patient’s site or locally control the view that is being transmitted to the patient.

When setting up a telepsychiatry service the following security measures need to be considered and addressed:

1. Personal computer or mobile device should have the latest security patches and updates applied to the operating system and any third-party applications being utilized for telepsychiatry encounters.

2. Audio and video transmission should be secured by using point-to-point encryption that meets recognized standards. Unauthorized persons should not be allowed access to sensitive information stored on the device or use the device to access sensitive applications or network resources.

3. Protected health information and other confidential data must be backed up to or stored on secure data storage locations.

The potential for telepsychiatry to improve access to mental health care is evident. The current technology is adequate for most uses and continued advances are in progress. Professional users can include psychiatrists, resident physicians, nurses, psychologists, and other mental health professionals.

### Figure. Practice Models for Telepsychiatry

<table>
<thead>
<tr>
<th>Model</th>
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<tbody>
<tr>
<td>Consultee-Centered Consultation</td>
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<tr>
<td>Client-Centered Consultation</td>
</tr>
<tr>
<td>Direct Care Provided by a Psychiatrist</td>
</tr>
<tr>
<td>Ongoing Care Coordinated by a Midlevel Professional in Conjunction with a Psychiatrist</td>
</tr>
<tr>
<td>Comprehensive Services Involving a Team of Clinicians</td>
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</table>

When using mobile devices, special attention needs to be given to: adequate restriction on access to any patient contact information stored on the device; a passpharse or equivalent security feature before the device can be accessed, preferably using multi-factor authentication; an inactivity timeout function that requires a passpharse or re-authentication to access the device after the timeout threshold has been exceeded (the American Telemedicine Association [ATA] recommends this timeout not to exceed 15 minutes); capability to remotely disable or wipe the device in the event it is lost or stolen.

ATA guidelines recommend providing services at a bandwidth of 384 Kbps or higher in each of the downlink and uplink directions and providing a minimum of 640 × 360 resolution at 30 frames per second.

Videoconference software should not allow multiple concurrent sessions to be opened by a single user.

The American Psychiatric Association (APA) has released a telepsychiatry toolkit as a resource for its members who want to learn about the various aspects of telepsychiatry. The toolkit covers topics from history, training, practice/clinical, reimbursement, and legal issues; it is available at [https://www.psychiatry.org/psychiatrists/practice/telepsychiatry](https://www.psychiatry.org/psychiatrists/practice/telepsychiatry). ATA practice guidelines are available at [https://www.integration.samhsa.gov/operations-administration/practice-guidelines-for-video-based-online-mental-health-services_ATA_5_29_13.pdf](https://www.integration.samhsa.gov/operations-administration/practice-guidelines-for-video-based-online-mental-health-services_ATA_5_29_13.pdf).
Revisiting the Rationale and Evidence for Peer Support

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A recent issue of Psychiatric Times featured an opinion piece by D.J. Jaffe who argued that there is little empirical support for the effectiveness of paid peer-support staff—persons in recovery from mental illnesses who are trained to provide support to others—in the outcomes of “homelessness, arrest, incarceration, violence, and needless hospitalization.”

In this article, we rebut Mr Jaffe’s argument by revisiting the rationale and evidence base for peer support.

While we agree that the government needs to fund more research on this important topic, we argue that stating that peer support “lacks evidence” is simply not accurate. In fact, as we will explain below, over 30 studies have found positive effects in numerous outcome domains. But first it is important to understand the nature and intended impact of this form of service delivery.

Rationale for peer support

The rationale for peer support is neither new nor limited to psychiatry. Paid peer support has been around since the birth of the discipline in the late 18th century, with the hiring of recovered patients as staff identified as one of the most essential components of “moral treatment.”

Harry Stack Sullivan continued this practice in his hospital in the 1920s, while the milieu therapy models that dominated psychiatry for the following decades relied in large part on the benefits of peer support and role modeling.

Outside of psychiatry, the Institute of Medicine reports that various forms of peer support can be found in virtually every branch of medicine that deals with chronic conditions, from asthma and cancer to diabetes and hypertension. The rationale here is simple; as explained by Fisher and colleagues in a recent review, persons with chronic illnesses spend about 6 hours every year in a health professional’s office, while spending the remaining 8760 hours of the year living with and trying to manage their health conditions. In psychiatry, this ratio is likely much less. Whether it is diabetes or mental illness, helping someone to live well with a serious illness is different from treating the illness, and it takes a different investment of time and effort. Simply put, people living with serious mental health conditions need more assistance and support than can be provided by a physician alone.

In psychiatry, as in other areas of chronic illness management, that “more” is typically provided by paraprofessionals. In medicine, there is currently rapid growth in the hiring of community health workers to assist patients with all manner of conditions to engage in self-care and to navigate complex health systems. In public psychiatry, paraprofessionals spend the most time with persons with chronic conditions, but usually have little to no training.

Training and hiring persons in recovery to provide peer support represents a win-win situation for resource-strapped systems. Patients receive support from trained peers their loved ones, ie, those associated with reclaiming a meaningful life.

To aspire to help persons with mental illnesses to establish meaningful lives is not to overlook or minimize the need to address homelessness, incarceration, and hospitalization. Because many have walked in their shoes, peer-support staff are especially expert in forging caring relationships with people who are overcome by the direst of circumstances and who have not responded to traditional approaches. Peer-support staff can effectively engage patients because they understand how they live (all too often on the street or in shelters) and offer practical help with basic needs and everyday living.

In contrast to coercive measures that further erode patients’ sense of self and basic dignity by focusing solely

Patients in the treatment group—with peer support—had fewer psychiatric hospital admissions on average and more episodes of crisis stabilization than those in the comparison group

<table>
<thead>
<tr>
<th></th>
<th>Treatment (N = 1910)</th>
<th>Comparison (N = 3820)</th>
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<tbody>
<tr>
<td><strong>Average utilization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric hospital admissions</td>
<td>1.35</td>
<td>1.58</td>
</tr>
<tr>
<td>Crisis stabilization episodes</td>
<td>1.09</td>
<td>0.84*</td>
</tr>
<tr>
<td><strong>Average duration of stay</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric hospital</td>
<td>19.2</td>
<td>21.5</td>
</tr>
<tr>
<td>Crisis stabilization</td>
<td>7.2</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Average cost</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric hospital</td>
<td>$16,454</td>
<td>$18,595</td>
</tr>
<tr>
<td>Crisis stabilization</td>
<td>$2405</td>
<td>$2401</td>
</tr>
<tr>
<td>Total Medicaid</td>
<td>$27904</td>
<td>$19,926^</td>
</tr>
<tr>
<td>Facility</td>
<td>$3634</td>
<td>$4426^</td>
</tr>
<tr>
<td>Professional</td>
<td>$13,408</td>
<td>$7,563^</td>
</tr>
<tr>
<td>Peer Support</td>
<td>$4,50</td>
<td>N/A</td>
</tr>
<tr>
<td>Rx</td>
<td>$10,861</td>
<td>$7,937***</td>
</tr>
</tbody>
</table>

**Peer Support Impact**

<table>
<thead>
<tr>
<th></th>
<th>Treatment (N = 1910)</th>
<th>Comparison (N = 3820)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average months of Medicaid enrollment</td>
<td>22.9</td>
<td>21.7</td>
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</table>

NOTE: *p < .01, **p < .001 SOURCE: Authors’ analysis.

The evidence for peer support

It should be no surprise that the CMS study Jaffe referenced found that...
Peer Support
Continued from page 11

Providers, thus increasing engagement in non-acute and less costly care; decrease substance use, unmet needs, and demoralization; and increase hope, empowerment, self-efficacy, social functioning, quality of and satisfaction with life, and activation for self-care.1,11-13,16,18-20

Patient-care outcomes
Why would these kinds of gains not be worthy of funding? Presumably because they have yet to be connected directly to reductions in the negative outcomes of arrest, incarceration, and violence. But these poor outcomes are more reflective of societal and systemic failures than of mental illness per se. They are due primarily to long-standing discrimination that has resulted in a lack of parity in funding for community-based mental health care. This becomes obvious when one looks beyond the borders of the US. Homelessness, arrests, and incarceration are not attributable to mental illnesses that has resulted not only in the lack of adequate funding for community-based care but also as a barrier to accessing what care is available sooner, which might prevent the need for more intensive care later on. Homelessness, incarceration, and violence among persons with mental illness are more of a consequence of our failure to accord such persons the rights of dignity, respect, and full citizenship that is their birthright than to mental illness per se.

Conclusion
No one would deny a person in recovery from cancer, or a person living with diabetes, the opportunity to contribute to the shaping and delivery of cancer or diabetes care. Persons in recovery from mental illnesses have insider knowledge of what it takes to have a life well lived with mental illness. In fact, two of the most influential visionaries in the history of mental health policy, Dorothy L. Dix and Clifford W. Beers had their own experiences of mental illness. Based on the credibility and trustworthiness fostered by their lived experience, their passion to give back, and their dedication to making recovery a reality for others who suffer with mental illness, other people in recovery (ie, peers) can also make invaluable contributions to better outcomes by advocating for, transforming, expanding, and providing effective mental health services.

The authors report no conflicts of interest concerning the subject matter of this article.

References

Peer Support staff complement clinical care. Their role is to instill hope, engage patients in self-care and health services, help them navigate complex and fragmented systems, and promote their pursuit of a meaningful life.

Overview of Peer Support Staff (PSS) on Hospitalization and ED Utilization

<table>
<thead>
<tr>
<th>Study Typology of PSS</th>
<th>Definition</th>
<th>Impact of PSS on hospitalization/ED usage</th>
<th>Key factors that mediate Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crisis and respite services</td>
<td>Programs and services that provide an acute response to individuals who are experiencing a psychiatric emergency and need an urgent response.</td>
<td>Provides alternatives to hospitalization and ED use. Fosters stability and community tenure.</td>
<td>Peers are employed to provide services. Training and certification standards exist. Services are reimbursable. Services are covered under Medicaid state plans. Peer specialists are integrated into the health care system. Community has other supportive resources and services to support clients. Peers are part of health care team and provide input into medical records. Track record of success in the community. Supported by other providers. Peers focus on whole health.</td>
</tr>
<tr>
<td>Transition in levels of care</td>
<td>Programs and services designed to provide assistance and support to individuals who are involved in changes to their treatment services that involve new providers or settings and levels of acuity.</td>
<td>Helps reduce/prevent crisis, crisis relapse, hospital readmission, ED use.</td>
<td></td>
</tr>
<tr>
<td>Community-based services to promote recovery and resiliency</td>
<td>Programs and services designed to provide ongoing engagement, support, and activation for those who have successfully established recovery and illness management plans.</td>
<td>Keeps individuals healthy in the community and helps prevent hospitalization.</td>
<td></td>
</tr>
</tbody>
</table>

(Continued on page 22)
The Silent Suffering of Those on Temporary Protected Status: Unbeknownst to Many

Jennifer Severe, MD
and Kirsy Japa, MD

Dr. Severe is a Public Psychiatry Fellow, Columbia University, New York; Dr Japa is a PGY 2 Psychiatry Resident, Cooper University Hospital, Camden, NJ.

The 2018 American Psychiatric Association (APA) Annual Meeting hosted an advocacy booth that brought together medical students, psychiatry residents, and practicing psychiatrists from different backgrounds with one purpose: “To increase awareness around the mental health needs of the 437,000 foreign nationals from 10 countries on Temporary Protected Status.”

Congress created the Temporary Protected Status, also known as TPS, as part of the Immigration Act of 1990 to provide temporary lawful status to foreign nationals from countries that have suffered natural disasters, protracted unrest or conflict, or who are going through other extraordinary circumstances that prevent their safe return home. Put differently, TPS is a humanitarian visa that allows its beneficiaries to integrate into, and contribute to, the American social, economic, and civic fabric. Foreign nationals from El Salvador, Honduras, and Haiti account for almost 93% of the TPS population and more than 80% are currently part of the labor force. The remaining countries with a TPS designation include Nepal, Syria, Nicaragua, Yemen, Sudan, Somalia, and South Sudan.

At the risk of returning back to their native country which might still be unsafe, TPS beneficiaries are desperately trying to avoid deportation by advocating for an extension of the TPS or seeking permanent residence in the US. Through our advocacy booth at the 2018 APA meeting, psychiatrists became aware of the fear, anxiety, demoralization, and possible retraumatization that trainees, colleagues, and patients on TPS go through. We also increased awareness around the high incidence of emotional suffering and mental illnesses associated with immigration, the low rate of mental health service use by migrants, and the effects of immigration-related family separation on US-born children.

Health care providers are an important and trusted source of support in addition to legal service and faith-based providers. We wish to continue reminding mental health providers of this crucial role through ongoing awareness-raising activities. We also hope to launch a pilot initiative to reach out to Haitian TPS holders and their families in their communities, churches, and clinics by targeting states with the highest density of Haitians. The goal is to encourage access to psychological support and empower them with information through a phone service line. To learn more, go to http://lovinskyseverefoundation.org/temporary-protected-status/. This pilot program can be replicated for other foreign nationals on TPS.

“When the Homeland Security rescinded the TPS, I first thought of the direct psychosocial impact on my family, whom I am here for, but I also think of those families affected throughout the US who have nobody” [Dr. Japa].

The exhibit booth was a joint effort between a diverse group of psychiatrists and was mainly supported by the Professional Risk Management Services Inc, the Association of Haitian Physicians Abroad, and the Haitian American Psychiatric Association. The initiative was spearheaded by Dr Severe.

To learn more about the pilot initiative and to reach out to Haitian TPS holders and their families, go to http://lovinskyseverefoundation.org/temporary-protected-status/
The Opioid Epidemic: Who Is to Blame?

>> Steven A. King, MD, MS

If there is one thing in the US upon which there is virtually universal agreement, it is that we are in the midst of an opioid epidemic. However, whom or what to blame for this is not as clear and should be the subject of greater discussion. So far, most of the blame has been placed at the doorstep of illicit drug dealers and the pharmaceutical companies that manufacture opioids. There is no doubt that both have contributed to it, but their share of the responsibility for the epidemic is overstated.

Drug dealers are obviously the source of illegal drugs such as heroin and various forms of fentanyl not available by prescription in the US. However, data from SAMHSA indicate that when it comes to prescription opioids, drug dealers play a limited role in the supply chain. Fewer than 10% are purchased from drug dealers or other strangers. Approximately 50% of non-medical users of prescription opioids get them from friends or relatives; 25% get them by prescription from physicians. Despite the often-cited problem of patients obtaining prescriptions from multiple prescribers, most receive the prescriptions from one doctor.1

Several state and local governments have instituted lawsuits against some of the pharmaceutical companies. The lawsuits claim that the companies purposely misled physicians about the addiction potential of their products; the Federal government is currently deciding whether to join these suits. The main target of these suits is Purdue Pharma, the manufacturer of the now infamous OxyContin, although other companies have also been included. There is no doubt that drug companies have aggressively marketed products that contributed to the epidemic. Although the tobacco companies’ accepting the responsibility for the health consequences of their products and the consequent settlements have been cited as a model for what should be required of opioid manufacturers, there is a marked difference between the two. Tobacco companies sold their products directly to consumers whereas patients legally obtain opioids from physicians and dentists who write the prescriptions.

Over the course of my career, I have dealt with many representatives of pharmaceutical companies. The majority are ethical, and a number have asked for my input on the positive and negative aspects of their products based on my experience in pain management. There have also been representatives who were willing to make what at best might be described as misleading statements. Some may have done so out of ignorance, but others knew what they were saying wasn’t true.

Whether good or bad, pharmaceutical company representatives are sales people trying to get physicians to prescribe their products. I believe that any medical professional who claims that whatever errors he or she made was because of what these representatives told them probably shouldn’t be practicing medicine and certainly not prescribing medications. If we accept the argument that these doctors were misled, then it must be asked how someone who spent 4 years in medical school and at least an additional 3 years in postgraduate training could be so ignorant about opioids.

Another cited culprit for overprescription of opioids is the recommendation of several professional organizations to make pain “the fifth vital sign” with physicians simply being innocent contributors to the epidemic. This suggests a widespread belief among physicians that opioids are either the only or the most effective analgesics; thus, if a patient is in pain, there is no alternative to opioids.

What is overlooked is that at the same time the number of opioids being prescribed in this country was increasing, there was never a corresponding decrease in how many people were suffering pain. Furthermore, when doctors say no one could have foreseen that patients prescribed opioids for legitimate pain complaints might end up abusing them, they fail to note that research published more than 25 years ago was already reporting problems with opioid analgesics.2

What is the source of all this ignorance? The answer is easy. If a child went to school yet was unable to read or perform basic math, we’d blame it on the inadequacy of the education he received. Similarly, if doctors finish medical school and graduate training could be so ignorant about opioids, it’s the fault of those who taught them.

I completed my fellowship in pain management 30 years ago. The one consistent thing since that time has been that every report and study, of which there have been many, has cited the inadequate education most US physicians receive about pain management.3 Yet, I have not seen any blame for the opioid epidemic being attributed to lack of education—and this is where the largest share of blame lies. Considering the many major advances in medicine in the past few decades, one would think that someone might have figured out by now how to educate physicians about pain management.

So why, so long after the problem was recognized, does it continue to exist? I believe there are several reasons, none of which have to do with science but rather with academic politics and money.

Because doctors in all specialties are likely to encounter patients with pain, pain management becomes the rare medical problem that doesn’t fall neatly under the purview of any single specialty. This has resulted in teaching on the subject to fall into the cracks between where each specialty begins and ends.

In most academic medical cen-
bers, pain management is under the purview of anesthesiology departments. The problem is that any one looks at this, it doesn’t make much sense. I have a great deal of respect for anesthesiologists and the important services they provide. However, even most of those who perform pain fellowships have little training in managing chronic pain and have little interest in managing acute pain with the exception of perioperative pain or that related to traumatic injury. What anesthesiologists who specialize in pain management mostly provide are various procedures, most of which—such as epidural steroid injections for low back pain—have little research to support their use. Moreover, many anesthesiologists who practice pain management have little interest in medication management and limited training in the use of oral analgesics—and most probably receive less education on substance abuse and addiction than physicians in other specialties.

Anesthesiology’s claim to primacy on the management of chronic pain appears to have stemmed from economic reasons. The “RAPs” (radiology, anesthesiology, pathology) proposal introduced several years ago was for practitioners of these specialties to become hospital employees which, in many cases, would have resulted in a reduction in their income. As a result, anesthesiologists began to look for services they could provide outside of the operating room.

So, if not anesthesiology, which medical specialty should be taking the lead in educating physicians about pain management? It seems to me that it makes most sense for psychiatry to take on the role of teaching pain management. For years, the major international organization for pain management specialists, the International Association for the Study of Pain, has defined pain as “always being a psychological state.” Moreover, every guideline on the management of chronic pain, that I know of, has highlighted that in most cases there is a major psychological component to pain and that psychologically based treatments are among the most effective.

It is also easy to make the case for psychiatry to be responsible for the medication management of pain. Two of the most important classes of analgesics for chronic pain are the SNRIs and the anti-epileptics. Although most psychiatrists don’t receive much training in the use of opioids as analgesics, they do receive education in opioid use disorder and its treatment. It appears that more and more psychiatrists see their role in pain management as being limited to treating patients who become addicted to opioids. However, psychiatrists could play a vital role in not only preventing opioid addiction but also providing pain management.

I realize that psychiatry departments would have a hard time wresting away pain management from anesthesiology. Procedures bring in a great deal of money and anyone in academic medicine is aware that the hierarchy of departments is largely based on revenue so psychiatry will always be near the bottom. There is also the fear that if pain management was included under psychiatry, patients with pain might fear they are being viewed as being “crazy” and their pain not taken seriously. An additional problem is that there are only a small number of psychiatrists with training and experience in pain management, but I believe there is a sufficient number to make a start.

In Shakespeare’s Julius Caesar, Cassius says to Brutus, “The fault, dear Brutus, is not in our stars but in ourselves.” When it comes to the opioid epidemic, the fault is not primarily in pharmaceutical companies, unethical physicians, or pain being the fifth vital sign, as many would have us believe. Rather the fault lies primarily in the medical education system that has chosen to place money over science in deciding how and by whom pain management should be taught.

We can’t do much about unethical physicians or pharmaceutical companies, but we should be able to have a significant impact upon how future generations of physicians are educated. If we continue to allow them to be poorly educated about pain management and opioids, we cannot expect things to change for the better. A reduction in the number of opioids prescribed is a laudable goal because it is clear that too many are currently prescribed. But unless we change the education system, there is no guarantee that those reductions will have an impact on the opioid crisis or that patients will have their pain properly managed.

The fault lies primarily in the medical education system that has chosen to place money over science in deciding how and by whom pain management should be taught.

References
Handgrip Strength
Continued from Cover

tion (across 5 domains) in middle-age people with and without schizophrenia.

Study design
The researchers performed a cross-sectional analysis of data collected from 2007 through 2010 from the baseline assessment for the United Kingdom Biobank, a nationwide cohort study of relationships between lifestyle, environment, and genetics to health-related outcomes. Over 500,000 adults aged 37 to 73 years were recruited across 22 assessment centers throughout the UK. For the present study, patients with neurological conditions associated with impaired cognition were excluded. The United Kingdom Biobank is also integrated with hospital records, allowing researchers to stratify participants based on the presence or absence of an ICD-10 diagnosis of non-affective psychosis (F20-29). The control sample consisted of all participants without a history of non-affective psychosis.

Handgrip strength was performed using a hand dynamometer, with a single trial for each hand. The maximal score for the (self-reported) dominant hand was used in all analyses. If subjects identified themselves as ambidextrous or did not specify a dominant hand, the hand with the highest score was used. Cognition was assessed using a 15-minute computerized battery with 5 individual tasks/domains, including reaction time, reasoning, numeric memory, visuospatial memory. Each cognitive domain was analyzed using linear mixed models or generalized linear mixed models, controlling for age, sex, weight, education, and geography and testing center.

Findings
A total of 476,559 participants met the study criteria and had measurements of handgrip strength and at least one cognitive domain; 1162 participants with schizophrenia were included in the cohort.

The mean age was 54 for patients with schizophrenia and 57 for controls. Just over half (54%) of the patients and 45% of controls were male. More than 95% of the participants (patients with schizophrenia and controls) completed both the visual memory and reaction time tasks, but fewer than 40% of the participants in both groups completed the other tasks. Handgrip strength was lower in both men and women with schizophrenia compared with controls. In the control and/or “general population” sample, higher handgrip strength was significantly positively associated with better performance on visual memory, reaction time, reasoning, number memory, and prospective memory tasks (P < .001 for each).

In patients with schizophrenia, higher handgrip strength was a significant positive predictor of better visual memory and reaction time (P < .001 for each) and predicted prospective memory at the trend level (P = .078). The magnitude of these associations was similar in patients with schizophrenia and in controls. In a post-hoc analysis, the pattern of findings was unchanged when considering only participants aged 55 years or younger, and after controlling for waist circumference and past history of cardiovascular disease.

This was the first study of handgrip strength and cognition in patients with schizophrenia, and the largest general population sample of this association to date, particularly in middle-aged adults. A limitation of the study is that fewer participants in the schizophrenia sample completed all of the cognitive tasks, which may have impacted on statistical power.

The bottom line
Handgrip strength is correlated with cognition in both schizophrenia and the general population. Further research is needed regarding the direction and mechanism(s) of these associations, towards novel approaches for the assessment (and even potentially the treatment) of cognitive impairment in patients with schizophrenia.

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References
Who Diagnoses and Treats Epilepsy in Patients With Psychiatric Symptoms?

Conrad M. Swartz, PhD, MD

Dr. Swartz is Emeritus Professor of Psychiatry, Southern Illinois University School of Medicine, Springfield, and Affiliate Faculty, Oregon Health & Sciences University.

Schizophrenia and bipolar disorder are not diagnosable if the patient has epilepsy that produces hallucinations or delusions. During my career in psychiatry, I have seen several dozen patients whose hallucinations and delusions stemmed from overlooked and untreated epilepsy. When they responded to anticonvulsant medication alone these patients and their families were happy about the change in diagnosis. This article describes how several such patients presented in psychiatric practice. Personal details were obscured to avoid identifiability.

My first patient who had epilepsy with psychiatric symptoms presented early in my residency. The patient was an adolescent from a small town, who claimed he was the leader of a large street gang that was at war with another gang that wanted to kill him. The town’s police chief dismissed that as impossible. His grades had been slipping over the past year—he had been a good student but was now failing. Two years earlier, he had been knocked unconscious by a baseball bat.

His EEG, head CT, and neurological physical examination were normal. He had been calm during the 4 days of counseling in the hospital although his delusions remained. In perplexity my attending and I said to each other “I suppose it’s schizophrenia” and agreed to start him on thiothixene. A few hours after his first dose of thiothixene he became mute and started throwing furniture—his first act of violence. Thiothixene was stopped without a second dose.

Two days later, the second EEG was normal without medication. Then, given phenytoin, his delusions and tension disappeared within hours. At repeated follow ups over 2 years, he remained well and his schoolwork improved.

This case vignette demonstrates that some antipsychotics can exacerbate epilepsy so that EEG abnormalities and seizure manifestations become observable. It shows that before diagnosing a psychosis such as schizophrenia, epilepsy must be excluded; normal EEG results alone do not suffice to make this exclusion.

Some clinicians may feel that epilepsy should be assessed, diagnosed, and treated by a multidisciplinary team of epileptologists, neuropsychologist, and others. In smaller communities and in state hospitals such a multidisciplinary approach is not feasible. The common experience is that epilepsy is not considered, psychosis is diagnosed, and antipsychotics are prescribed. One psychiatrist alone can diagnose schizophrenia but overlook epilepsy. DSM too easily allows dismissing epilepsy when diagnosing schizophrenia because epilepsy is not always accompanied by specific signs or EEG findings, and EEGs are not done unless ordered.

(Continued on Page 16B)
I am not surprised that about 30% of patients with schizophrenia do not respond to antipsychotics, and patients with drug-resistant schizophrenia may respond to ECT. Anticonvulsant activity by ECT may factor in this response. What is the incidence of epilepsy in a general psychiatric clinic? A recent survey of my first 98 patients in a clinic revealed previously unrecognized epilepsy in 9 patients. Six had hallucinations or delusions, previously misdiagnosed as schizophrenia or bipolar disorder. All 6 showed significant rapid improvement with anticonvulsants. This incidence seems high, but the clinic is entirely for Medicaid patients. If the psychiatrist doesn’t recognize that epilepsy is underlying delusions or hallucinations, who will? On a teaching psychiatry ward, I saw a middle-aged man who was hospitalized for yelling in public that witchcraft is killing him. He told me that he had epilepsy for which he was being treated with carbamazepine, then he showed me an old letter from a neurologist that stated that his psychosis does not stem from epilepsy. The letter proved nothing, so I added the anticonvulsant primidone. Within a day his delusions and fears disappeared, which demonstrated an epileptic basis for the delusions. He appreciated the changes and became outgoing, cheerful, and sociable. After showing stable remission for 3 days, he was discharged; there was no known readmission.

Another middle-aged man was sent to the psychiatric ward from the emergency department complaining of episodes of unresponsiveness and confusion. Because he behaved normally outside these episodes, I suspected epilepsy. Two EEGs and 24-hour EEG showed only diffuse slowing, but his serum prolactin level was elevated (22.1 ng/mL) 25 minutes post-episode, which pointed to seizure disorder. Valproic acid 1500 mg daily quickly stopped the episodes, confirming epilepsy. These 2 cases illustrate that a psychiatrist is needed to identify epilepsy in psychiatric patients. Who then should treat epilepsy? An answer was provided by a neurology group that sent me their young clinic secretary who was suffering with auditory hallucinations, fearful delusions, and partial complex epilepsy to treat. After initiating carbamazepine, the hallucinations and delusions disappeared, and the patient happily resumed her job. The implicit message from the neurologists was that hallucinations and delusions are to be treated by a psychiatrist, regardless of cause.

Several years ago, I inherited a stable man in his mid-thirties who had a diagnosis of bipolar 1, who was being treated with high doses of olanzapine and divalproex daily. When I decreased olanzapine to below 7.5 mg daily, he showed confusion, not a mood episode, raising suspicion of epilepsy. Then I elicited an overlooked history of severe TBI with unconsciousness for 5 days antedating psychiatric symptoms by 2 years. The new EEG I obtained was abnormal. The patient declined to see a neurologist, pleaded with me to treat him.

Likewise, a young woman presented with low mood, anxiety, and unpleasant voice hallucinations that conversed with each other, impaired concentration, and disturbed sleep. Ten years earlier, she had a serious concussion and began to have episodes of auditory hallucinations and anxiety. Suspecting epilepsy, I treated her with oxcarbazepine and the voices disappeared. Eventually, she stopped taking the medication and when the symptoms returned, she was hospitalized. She received a diagnosis of bipolar disorder, epilepsy was disregarded, and she was started on an antipsychotic. Although calmer, the voices remained. When I saw her again, I discontinued the antipsychotic and restarted her on oxcarbazepine and the voices and anxiety disappeared. The presentation had no signs or symptoms specific to bipolar disorder, only anxiety and auditory hallucinations, but epilepsy had been disregarded.
This was not the only instance of disregard of epilepsy. A woman in her mid-forties was hospitalized with visual and auditory hallucinations urging her to suicide, showing impoverished thought, anxious agitation, and melancholic sickness. A few months earlier she had discontinued olanzapine. She described childhood-onset epilepsy, and phenytoin discontinuation 10 years earlier with no reason given for stopping the medication. During the past 10 years, she was seen in the teaching psychiatry clinic with persistent hallucinations; she received a diagnosis of schizophrenia and prescriptions for antipsychotics. A new EEG showed complex partial epileptic seizures in the left anterior temporal lobe. In response to phenytoin all symptoms disappeared in one day. After discharge, the clinic psychiatrist discontinued phenytoin, re-diagnosed schizophrenia, restarted olanzapine, and disregarded epilepsy and the results of the EEG. The patient gained 30 pounds, discontinued olanzapine, and never returned to the clinic.

Behavioral or psychological distress brought these “psychiatric” patients to me. Because of possible controversy, I asked the American Psychiatric Association if evaluating and treating epilepsy is in the scope of psychiatric practice. Their Council on Psychosomatic Medicine/Consultation-Liaison Psychiatry replied that it is, particularly if associated with neuropsychiatric symptoms. Similarly, Washington State Medicaid confirmed that they pay psychiatrists for evaluating and treating epilepsy in patients with hallucinations or delusions.

With growing public awareness that head injury is common and produces neuropsychiatric symptoms and impaired cognition and performance, psychiatry is needed to do more than prescribe antipsychotics. Patients with head injury need evaluation and treatment of epilepsy, especially for temporal lobe epilepsy. Likewise these patients need to be assessed for anxiety and mood disorders, attention deficit problems, and suicide risk. Of course, diagnosing epilepsy requires experience, and psychiatrists should refer or request consultations as needed.

References

Probiotics Lower Rehospitalization Rates in Bipolar Disorder

» Chris Aiken, MD

Dr. Aiken is the Director of the Mood Treatment Center, Editor in Chief of The Carlat Psychiatry Report, and Instructor in Clinical Psychiatry at the Wake Forest University School of Medicine.

The first clinical trial of probiotics in bipolar disorder is out, and the results look promising. Probiotics lowered the rate of rehospitalization after a manic episode, according to a small controlled trial released this month. This marks the first clinical trial of probiotics in bipolar disorder, and it builds on previous research that (CONTINUED ON PAGE 16D)
Probiotics for Bipolar

Continued from page 16C

has found promise for these “healthy bacteria” in depression, anxiety, cognition, and autism.2–5

Led by Dr Faith Dickerson at Sheppard Pratt Health System, the researchers randomized 66 patients to receive either a probiotic capsule or placebo for 6 months along with their usual medications after a hospital stay for mania. During that time, 50% of the patients required rehospitalization, but the rate was lower—by a factor of 3—in the probiotic group. A similar reduction was seen in the duration of hospital stays for patients who were given the probiotic.

Mind-gut mechanisms

The idea that the gut flora can influence mental illness dates to the early 20th century.6 Bench research has since clarified some of the specifics behind this “mind-gut connection.” Inflammation worsens mood disorders, and the microbial flora can alter inflammatory processes through effects on the immune system. The current study upheld that hypothesis—the degree of improvement correlated with baseline markers of inflammation.1 Other potential mechanisms for probiotics include effects on neuroplasticity (through brain-derived neurotrophic factor), neurotransmitters (increases in serotonin, GABA, N-acetyl aspartate, and glutamate), and regulation of stress hormones along the HPA Axis.2,3,7

The right strain

The gut flora can have positive or negative effects on health depending on which strains are dominant. This study used 2 strains that are thought to have beneficial effects on immune function—Bifidobacterium lactis bb-12 and Lactobacillus rhamnosus GG (or LGG). These strains are found in breast milk and have a strong safety record in humans [Dickerson F. Personal Communication, April 27, 2018].

Other studies in depression and anxiety used different strains from the Bifidobacterium and Lactobacillus families, but they involved milder symptoms and may not translate to bipolar mania (Table). There are risks in deviating too far from the exact strains used in a study, as seemingly minor differences can affect outcomes. For example, the 299v strain of Lactobacillus plantarum improved irritable bowel syndrome (IBS) in several studies, but IBS worsened with the MF1298 strain of the same organism.8–10 In terms of mental health, there are no clear examples of worsening psychiatric symptoms with probiotics, although one strain failed to help older adults (Lactobacillus reuteri) despite alleviating colic in infants.7

The current study used 2 proprietary strains from a Danish company (Chr. Hansen trademark. Usana, Culturelle Baby Grow, and Thrive, as well as Emergen-C contain both strains, while Align Daily Immune Support contains bb-12 alone and Culturelle contains LGG alone. Lack of regulation is a concern, but 2 of the products (Usana and Culturelle) were tested and approved by Consumer Labs, and all of them provide an adequate dosage. Probiotics are well tolerated and generally beneficially for physical health. Gas and bloating are possible adverse effects, and they should be avoided in people who are immunocompromised or at high risk for infection.

Study limitations

The study was well designed and managed to retain most of the participants over a long course of follow-up. Drop-outs (21%) were evenly distributed across both groups, as were other relevant variables. Although the probiotics had no effects on secondary measures of mood symptoms, the differences on the primary measure of rehospitalization were robust. The main limitation of the study is also what makes it remarkable: it’s the first of its kind and needs replication. That part is underway. The Stanley Medical Research Institute is supporting a replication of the
mania trial as well as a study of the same probiotic strains in bipolar depression [Dickerson F. Personal communication, April 27, 2018].

Dr Aiken reports that he does not accept honoraria from pharmaceutical companies; he does receive royalties from WW Norton & Co from the sale of Bipolar, Not So Much, a book he coauthored with Jim Phelps, MD.

References

CONTINUED ON PAGE 16F

A Kind of Mirraculas Paradise by Sandra Allen

Howard L. Forman, MD

Dr Forman is Assistant Professor of Psychiatry, Albert Einstein College of Medicine, and Director of the Addiction Consultation Service at Montefiore Medical Center, Bronx, New York.

Sandra Allen has the byline for A Kind of Mirraculas Paradise, but it may be more accurate to say she is a co-author, an editor, a dogged investigator of her own family’s history, and a sharer of her uncle’s memoir—a man who received a diagnosis of paranoid schizophrenia in his late adolescence. The book alternates between chapters Allen wrote and chapters that her Uncle Bob sent—a 60-page, single-spaced, typed-in-all capital letters manuscript—for her to edit and share. The book is timely but will also stand the test of time as an excellent contextualized first-person narrative of schizophrenia.

The release of the book comes amid a rising understanding that although we are 60 years into the antipsychotic era, these medications only partly help people with schizophrenia. In reading about Bob’s travels throughout the US, one comes across instances where working conditions, friends, and neighbors propelled Bob to periods of productivity and meaningfulness, despite the psychosis.

Another element of the book that makes it particularly relevant is its description of the sexual abuse and coercion of patients witnessed by Bob during several psychiatric inpatient stays. The #MeToo movement has brought growing recognition of the scale of sexual harassment, abuse, and assault across all arenas where imbalances of power exist. We would all like to believe that the care of (CONTINUED ON PAGE 16F)
Neurological and Psychiatric Effects of Dermatology Drugs

Veronica Hackethal, MD

Certain drugs used to treat severe dermatologic diseases can have various neuropsychiatric adverse effects. Generating awareness of potential neuropsychiatric adverse events of these drugs is important because, while many of them may be mild and reversible, others can be more serious, sometimes permanent, and potentially fatal.

The most serious reactions are found with psoriasis drugs, especially non-biologic medications such as cyclosporine A and methotrexate, according to a recent review. "Given the number of systemic dermatologic therapies and the wide variety of their neurological and neuropsychiatric adverse effects, neurologists, psychiatrists, dermatologists, oncologists, and primary care providers must be aware of recorded neuropsychiatric adverse reactions," wrote first author Melinda Liu, MD, of Baylor College of Medicine in Houston, Texas, and colleagues. "Prescribers should provide information about such adverse effects, offer methods for monitoring for them, particularly during the early months of treatment, and remain aware of the potential need to discontinue the medication," the authors advised.

The following is a brief overview of

vulnerable psychiatrally ill patients who are often placed on locked units for their “own good” would be immune to this societal ill. But, at the same time we know that these Pollyannaish beliefs cannot be true. As the people charged with fiduciary responsibility for our patients, the book motivates us to do more to protect our patients.

A Kind of Miraculous Paradise includes cringe-worthy psychiatrists and heroic ones. One psychiatrist consistently refuses to engage with Bob but instead makes medication decisions without examination. Later, Bob meets a psychiatrist who works in both inpatient and outpatient settings to develop a treatment that is consistent with Bob’s values and hopes. Similarly, there are hospitals that patients seek out for their peaceful and healing environments while others are like prison.

Psychiatrists may find Allen's book useful when considering the sacrifices families make to help their severely and persistently mentally ill loved ones get treatment. The financial and emotional toll is huge for those who seek access to mental health care for their loved ones or for those who advocate for them in the criminal justice system. Although laws governing patient privacy often prevent us from being able to reduce this toll, awareness can lead us to be more sensitive caregivers.

As a psychiatrist, I have sought to understand the minds of my patients who exist in both the “real” world and in the delusional world. Bob’s writing offers the reader an eloquent way of seeing the way these worlds flow seamlessly from one to another and back. My hope is that it will become a classic and universally read by all psychiatrists."
drugs discussed in the article. The review includes a range of studies, from randomized controlled trials to case reports. It covers FDA-approved medications for dermatologic diseases that usually require systemic medications.

**FDA-approved psoriasis drugs**

**Cyclosporin A.** Neuropsychiatric adverse effects are dose- and duration-dependent. Treatment for over one year is strongly discouraged. Neurological adverse effects occur in up to 40% of patients, and many are reversible with treatment cessation. Headaches, paresthesias, and tremors are most common. Posterior reversible encephalopathy syndrome (PRES), a rare but serious (though reversible) condition which may involve headache, confusion, seizures, vision loss, nausea, or vomiting.

Other rare neurological adverse events that have been reported include progressive multifocal leukoencephalopathy (PML), psychosis, cerebellar syndrome, mania, seizures, and drug-induced Parkinsonism.

**Acitretin.** Neurological adverse effects include idiopathic intracranial hypertension (IIH) and peripheral neuropathy. The drug should be avoided with statins, corticosteroids, colchicine and penicillamine due to neurological and muscular adverse events.

Due to reports of IIH with retinoids (isotretinoin, acitretin), tetracyclines (see below), and cyclosporin A (see below), these drugs should not be co-administered as they may incur possible additive risk. It should be noted that women are at increased risk of IIH.

**Methotrexate.** Cases of psychosis and mania, as well as leukoencephalopathy, have been reported. To decrease toxicity, concurrent folate administration, strict adherence to contraindications, and regular assessment of kidney and liver function is advised.

**Apremilast.** Dose-dependent adverse events are usually self-limited and mild to moderate. There have been some reports of depressed mood, but the quality of the evidence is questionable.

**FDA-approved biologics for psoriasis**

**Tumor necrosis factor α-inhibitors.** The use of TNFα inhibitors (eg, infliximab, etanercept, adalimumab) has in some cases resulted in psychosis, mania, optic neuritis, transverse myelitis, Guillain-Barre syndrome, and chronic inflammatory demyelinating polyneuropathy (CIDP). Because of rare reports that the drug may promote demyelinating disorders, the American Academy of Dermatology recommends avoiding TNFα-inhibitors in patients with a personal or family history of demyelinating disorders.

**Interleukin inhibitors.** There have been case reports of PRES with long-term ustekinumab but not secukinumab from medications such as ustekinumab, secukinumab, and ixekizumab. There is some concern for depression with ixekizumab.

**FDA-approved autoimmune skin disease drugs**

**Corticosteroids.** Used for treating autoimmune bullous diseases, SLE-related skin disorders, and atopic dermatitis, corticosteroids have been linked to neuropsychiatric disorders. These disorders are dose-dependent, with doses of 40 mg and above strongly linked to such disorders. Women are up to 6 times more likely to experience these disorders than men.

In decreasing order of frequency, depression, mania, psychosis, and delirium have been reported. Behavioral effects include sleep disorders and steroid euphoria (decreased anxiety and depression). Cognitive effects, sometimes called reversible corticosteroid-induced dementia, include poor concentration, poor memory, and amnestic aphasia. Three quarters of patients experience remission after discontinuing therapy. Dementia may resolve more slowly, with possible residual cognitive problems.

**Oral dapsone.** The first-line for leprosy and dermatitis herpetiformis, dapsone is usually well-tolerated but has rarely been associated with psychosis and mania. Adverse neurological effects include optic neuropathy and peripheral neuropathy, which can develop after prolonged therapy or overdose and usually resolves within one year of stopping therapy.

**Intravenous immunoglobulin.** IVIG is used for graft-versus-host disease (GVHD) and Kawasaki syndrome. Mild neuropsychiatric effects include anxiety, irritability, nervousness, and tremor. Moderate neurological effects include aseptic meningitis (rare, transient). Severe neurological adverse effects include stroke, with one single-center study reporting 0.6% overall incidence. All neurological adverse events are more likely to occur during the initial dose.

**Thalidomide.** This medication is used for erythema nodosum leprosum (ENL) and multiple myeloma. The most common neurological adverse effects include drowsiness, somnolence, and constipation due to autonomic neuropathy. Common neurological adverse effects include peripheral neuropathy and muscle weakness, which usually resolve within 4 months with the same or decreased dose. Rarely, seizures, migraines, hallucinations, and syncope have occurred.

**FDA-approved acne drugs**

**Tetracyclines.** Minocycline and tetracycline in particular are associated with the development of IIH, which usually resolves with acitretinamide.

**Isotretinoin** is less commonly associated with neurological adverse events, but these include tension or migraine-type headache. Rarely it is associated with IIH. There have been conflicting reports of mood changes, and a few reports of stiff-person syndrome. These problems usually resolve after cessation of therapy.

**FDA-approved drugs for melanoma**

**Vemurafenib** is used for melanoma with BRAF mutations. There have been case reports of facial nerve palsy and acute inflammatory demyelinating polyneuropathy with this drug.

**Combined dabrafenib and trametinib** is used to delay monotherapy-induced resistance to BRAF inhibition. There have been case reports of intracranial hemorrhage with this drug.

**Iplimumab** is used for unresectable metastatic melanoma, with a reported rate of neurological adverse events of 0.1%. These include headache, dizziness, lethargy, and weakness, as well as transient sensory and motor peripheral neuropathies. There have been case reports of demyelinating and autoimmune disorders and mild encephalitis/encephalopathy with reversible lesion in the callosal splenium (MERS). Symptoms usually resolve within days to weeks of stopping treatment and administering glucocorticoids, IVIG, or sometimes plasmapheresis.

**IFN-2b** is used for metastatic melanoma. About 30% to 45% of patients who use these drugs experience a major depressive episode, which is usually dose- and treatment length-dependent. Prevention and treatment includes dose modification, pre- or concurrent SSRIs, and psychiatric referral. Mania or hypomania has been associated with dose reduction or pauses in therapy.

**Take Home Points**

• Review of systemic medications for dermatologic diseases describes a wide range of neuropsychiatric adverse events, which range from mild and reversible to permanent and potentially fatal.

• The most serious reactions are found with psoriasis drugs, especially non-biologic medications such as cyclosporine A and methotrexate.

• Neurologists, psychiatrists, dermatologists, oncologists, and primary care providers may all need to be aware of the neuropsychiatric adverse reactions of systemic dermatologic drugs.

**Reference**


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**Yellow Warbler**

Richard M. Berlin, MD

Soaked in Mexican sunshine he’s powered back to the Berkshires, all the world’s yellow compressed into a firecracker of feathered light perched and puffed on a willow branch, eager to proclaim his power, prowess, and territory, all the ladies listening, bull frogs croaking a bassline, rugosa roses adding perfume, our tiny dressed-to-the-nines big shot strutting his stuff, proclaiming he’s ready for love with the only song he can sing: Sweet sweet sweet. Sweeter than sweet!

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Why Attend a Professional Conference?

Thoughts After Attending the American Neuropsychiatric Association Annual Meeting

Barbara Schildkrout, MD

Dr. Schildkrout is Assistant Professor of Psychiatry, part time, Harvard Medical School, Beth Israel Deaconess Medical Center, Boston, MA. She is the author of two books: Unmasking Psychological Symptoms: How Therapists Can Learn to Recognize the Psychological Presentation of Medical Disorders and Masquerading Symptoms: Uncovering Physical Illnesses That Present as Psychological Problems.

Attending a professional conference is not easy. There’s the disruption to your schedule and the responsibility for finding clinical coverage. If the meeting is out of town, substantial financial costs and advanced planning are involved. Many of us also have to negotiate the extra burden placed on family members who care for children and households while we’re away. Then there’s the packing, traveling, and, for some, managing social anxiety, especially around unscheduled meals at the conference itself. It’s not a vacation. Why do we bother?

The recent 29th Annual Meeting of the American Neuropsychiatric Association (ANPA) reminded me of the reasons that I do bother to make the effort every year. This article presents some of the highlights from talks and presentations at this year’s ANPA meeting (see Sidebar).

However, even outstanding content does not propel attendance: content is only the focal point around which other, important aspects of a conference experience unfold. After all, excellent and up-to-date information is available online 24/7, from home, and perusing that material on your computer may be a more efficient use of your time than sitting through a lecture that might be boring or offer you little new information. Moreover, it is possible to purchase continuing education credits for much less money than the cost of traveling to a professional conference. Once again, why do we bother?

The benefits of attending professional conferences extend beyond the program. My experience at the ANPA conference is surely similar to what others feel when they attend well-planned conferences sponsored by organizations in their areas of interest. There is a sense of excitement, the “thrill of the crowd,” as those who are passionate about a subject gather and devote time to a shared experience away from the ordinary day-to-day. Contributing to this thrill is the opportunity to interact informally with the field’s thought-leaders during breaks in the program, social hours, or poster sessions. In addition, the expected gratification that comes from hearing an outstanding scientific talk is multiplied when well-informed audience members ask probing questions and animated discussions spill out of the auditorium into the coffee break. Learning new ways of thinking often requires this kind of deeper, more active engagement with material.

For me, one of the best things was that fellow attendees didn’t seem to tire of talking about the brain and behavior, which allowed me to indulge my enthusiasm for the subject. Whenever I stopped to notice, I could see small groups of people gathering to chat. Catching bits of their conversations, I heard discussions about challenging patient situations, plans for collaboration being formulated, information being shared. “I’ll send you that paper.” “I have a student who might be interested in working with you.” “You ought to talk with...” One only needed to walk a few steps to find an expert who could help you sort out some confusion or answer a question. Gathered in one room were remarkably experienced clinicians, researchers, teachers, writers, and editors in areas of interest to many psychiatrists: traumatic brain injury, functional movement disorders, both common and rare forms of dementia, the role of the cerebellum in cognition, anti-NMDA receptor encephalitis, neuropsychiatric manifestations of epilepsy, the genetics of autism spectrum disorder, in short—topics from Alzheimer disease to neuropsychiatric rare diseases—the Zebras.

Enrico Fermi is reputed to have said, “Never underestimate the joy people derive from hearing something they already know.” We all appreciate hearing presentations that reinforce our fund of knowledge and validate our experiences with patients. There is added benefit when a speaker is able to expand that knowledge into new territory or when the talk helps us to see current information from a different perspective, be that an historical panorama or the view from another field of study such as law, rehabilitation medicine, data science. On the other hand, there is a case to be made for sitting through some talks that we can’t quite follow. This is like a “good mental-stretch.” It reminds us that science is wide and deep, and there’s always more to learn.

In attending any conference, our fondest hope is that we might encounter a truly inspiring lecture. Talks of this nature are in a class of their own, bestowing upon the listener a personal feeling of exhilaration; they leave each audience member feeling re-energized, uplifted, aware of expanded possibilities, and back in touch with the deeply meaningful aspects of one’s own work.

Presentations like this are rare, but Lucia Willadino Braga, PhD, from the SARAH Network of Rehabilitation Hospitals in Brazil, Brazil, delivered one. Using several remarkable case examples, Dr. Braga demonstrated how education and neurorehabilitation harness the brain’s neuroplasticity, resulting in changes in structural and functional connectivity.

One of her patients was a popular Brazilian music star who had suffered a traumatic brain injury and spinal cord lesion. It seemed unlikely that he would ever be able to sing or play guitar again given that he had post-traumatic memory deficits and paraplegia. Yet, after one year and 9 months of intensive rehabilitation he was back to performing. The professionals from the SARAH network had worked with the patient and his band; together they had formulated strategies for helping the musician. For example, when he forgot lyrics while on stage, he would turn his back to the audience momentarily in a way that seemed entirely natural, and this gave other band members the opportunity to remind him of the words.

Another case involved a healthy, 45-year-old man from a remote Brazilian village. This gentleman had never been exposed to written language. At the SARAH hospital, he was taught to read and write. Functional imaging and diffusion tensor imaging (DTI) were used to track the changes in his brain as he went through this process of first learning to identify letters, then

Notes from the ANPA Annual Meeting

Traumatic brain injuries (TBI): According to speaker, Seth Herman, MD, after a TBI, patients may exhibit disturbances in endocrine function. The most common post-traumatic endocrine deficiency is in growth hormone, but cortisol and/or thyroid hormone also may be abnormally low. Possible mechanisms for hypopituitarism after TBI include endocrine system adaptation to a traumatic illness and/or injury to the pituitary and hypothalamus.

Seizure disorders: Ictal fear occurs in about 70% of patients with focal epilepsy and needs to be distinguished from panic attacks. Ictal fear episodes are usually shorter than panic attacks. Pre-ictal anxiety and post-ictal anxiety are common, but anxiety may also be a trigger for epileptic seizures.

Primary progressive aphasia (PPA): Patients with gradually progressive disturbances in language function may have PPA. The underlying pathophysiology is usually fronto-temporal lobar degeneration or Alzheimer disease.

Gait disturbances: Evaluation of gait disturbances is very difficult and requires a trained eye. Consider referring patients who have an abnormal gait to a movement disorders specialist.

The gynmphatic system: Mainly active during sleep, the gynmphatic system is a complex, perversival system within the brain that has been shown to eliminate soluble toxic waste molecules, including beta-amyloid (which accumulates in the brains of Alzheimer patients). Disturbances in the gynmphatic system might contribute to stroke, neurodegenerative diseases, and traumatic brain injury.

Complex neuropsychiatric disorders: Researchers are studying disorders such as autism spectrum disorder with techniques such as diffusion tensor imaging to visualize white matter and functional connectivity to look at whole brain functional organization.

Autism spectrum disorder (ASD): Genetic testing may be useful in some ASD cases, especially to determine whether there is a specific genetic syndrome (eg, fragile X, Rhett Syndrome, Tuberous Sclerosis Complex).

(Continued on Page 18)
Creativity and Psychiatric Illness: Finding the Sweet Spot

**Burns Woodward, MD**

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Many people with psychiatric disorders engage in creative activities, from informal hobbies to highly accomplished careers. While some distinguish their symptoms from their creative talents, others avoid treatment, fearing it will impair mental and emotional processes they value. After a brief summary of the complex relationship between creativity and psychiatric illness, this article focuses on the treatment of such patients. Two cases—the mathematician John Nash and the author David Foster Wallace—are presented to illustrate a nuanced approach that integrates medical knowledge with patients’ perspectives.

A few years after the groundbreaking work that earned him a Nobel Prize, John Nash began to experience signs of schizophrenia. About his delusions, he explained, “the ideas I had about supernatural beings came to me the same way my mathematical ideas did. So I took them seriously.” Nash avoided psychiatric treatment, and the only productive mathematical work he accomplished after his first psychotic episode occurred during several months when he took trifluoperazine.

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David Foster Wallace, a MacArthur Fellow whose fiction and essays...
caught the experience of a generation, suffered from recurrent depression. In 2007 he discontinued long-standing treatment with phenelzine in part because he thought it was interfering with his ability to finish a novel. Tragically, his depression relapsed, and he committed suicide without completing the book. While it is impossible to determine the validity of Nash’s and Wallace’s ideas about their illnesses, medication, and creative abilities, their beliefs that they were linked contributed to decisions that ended their productive careers and, in Wallace’s case, his life.

Research findings
A century of biographical research has documented mental illness in the lives of individuals like Nash and Wallace; a recent example is a study of the poet Robert Lowell by Kay Redfield Jamison, PhD. Lowell’s racing thoughts, flight of ideas, and divergent thinking during times ofmania generated highly original language, which required extensive revision during euthymic periods. Older case reports have explored these issues as well. Mogens Schou, MD, described varying effects of lithium on artistic productivity in 24 lithium responders. Half reported benefit, but several discontinued the medication, believing it interfered with their creativity. Schou attributed the variations to type and severity of illness, individual sensitivity, and whether the artist tended to use manic symptoms productively.

Modern research using psychological tests, population surveys, and genetics has looked both at psychiatric illness in creative individuals and at creativity in people with diagnosed psychiatric disorders. The results indicate modestly higher rates of bipolar disorders in creative individuals, as well as elevated psychological traits associated with creativity in people who have bipolar illness. These associations are found in the visual arts, literature, music, performing arts, business, politics, religion, and science. The connection is strongest for milder conditions like cyclothymic and bipolar II disorders, since the functional impairment associated with florid mania can interfere with creative work.

Because it is difficult to study symptomatic individuals, most research looks at creative traits during euthymic periods: the limited evidence documenting creative work during symptomatic periods, usually hypomania, comes from patient accounts and case reports. Divergent thinking, high verbal productivity, and intense or contrasting mood states can generate original work, and grandiosity, high energy, and reduced sleep can increase productivity. Manic ambition and sociability can enhance public recognition. The relationship of creativity to depression is less clear.

Creativity shares genetic roots with both bipolar disorder and schizophrenia, and symptoms associated with schizophrenia can contribute to creativity. Flattened affect, apathy, and a sense of strangeness may manifest themselves in creative irony, rule-breaking, self-reference, and temporal and spatial dislocations. Psychotic symptoms can also impede creative work, which may account for higher rates of avocational creative activities like poetry and photography in people with schizophrenia.

Creativity carries mental health risks. And artistic exploration can intensify mood states. The uncertainties of a creative career can worsen psychiatric symptoms. Creative peers may promote one another’s substance abuse. Irregular sleep and activity schedules can be destabilizing. And mood disorders are associated with heightened reactivity—success can trigger manic symptoms, and people with bipolar disorder experience more frustration than others when goals are not met.

Psychiatric disorders, then, have a complex relationship with creativity. Some mild to moderate traits and symptoms can enhance original thinking, problem solving, productivity, and recognition, but confusion, depression, mania, bizarre behavior, and social isolation get in the way. Many psychiatric patients value their creativity, and some, like Nash and Wallace, believe it is connected to their symptoms and treatment.

Clinical approach
One of psychiatry’s creative skills is the ability to think in more than one way at the same time—to maintain one’s medical perspective while exploring a patient’s experiences and beliefs. This is not always easy: a narrow focus on symptoms can jeopardize the treatment alliance by ignoring a patient’s concerns that treatment will interfere with creativity, but blind acceptance of a patient’s views can overestimate creative abilities, their importance in the patient’s life, or their connection to the patient’s symptoms.

Many patients, particularly those with depression, recognize that their symptoms interfere with creative activities and welcome relief, although some, as appears to have been the case for Wallace, complain that medication limits their emotional responsiveness. Others value symptoms like rapid thinking and unusual mental associations. And a few, like Nash, believe their symptoms and creativity arise from the same source. When patients identify such connections, it is helpful to look at when and under what circumstances psychiatric symptoms and creative thinking occur and at what factors, including medication, heighten or diminish them. The goal is a clearer understanding of any possible connection.

A patient’s concern that treatment will interfere with creativity may point toward treatment options to which he or she is more likely to be adherent. Patients with bipolar disorder, for example, may be more comfortable with anticonvulsant mood stabilizers such as valproate or lamotrigine than with lithium or ECT, which may have adverse cognitive effects (although, with lithium, these can usually be managed by careful dosing). As treatment unfolds, it is worthwhile to ask about changes in creativity along with symptom levels and functioning. Clinicians who use rating scales may find a self-report questionnaire such as the Inventory of Creative Activities and Achievements useful.

After his third hospitalization, John Nash agreed to take triluoperazine. He worried that the drug would prevent him from thinking clearly enough to resume mathematical work. His psychiatrist was sympathetic and kept the dose low. Months later he relapsed to florid psychosis. It is unclear whether he had discontinued the medication or whether the dose was simply too low. In his discussion of Nash’s treatment, Peter Weiden, MD, recommends taking a patient’s concerns seriously, trying to persuade the patient that his intellect is strongest when his preoccupations are at a low level, and developing a treatment goal for avoiding hospitalizations. Then, reviewing evidence that medication maintenance reduces the risk of relapse might persuade the patient to accept ongoing treatment. A patient like Nash might also agree to monitor his symptoms and creativity with rating scales so dose adjustments can be based on data rather than on the patient’s fears or the clinician’s assumptions.

The nature of David Foster Wallace’s treatment alliance when he discontinued phenelzine is unknown, nor is it clear whether he was receiving psychotherapy. In retrospect, it would have been best to see him regularly; include input from his wife; discuss the risks and possible benefits of treatment discontinuation as well as early signs of relapse; taper the medication with monitoring by the patient, family, and psychiatrist; and intervene early if depression returned. A few months after he stopped taking phenelzine, Wallace was hospitalized for severe depression. Other antidepressants were prescribed, but his anxiety about adverse effects led to early discontinuation. After an unsuccessful course of ECT, he asked to restart phenelzine. Despite some signs of early response, he hanged himself. Wallace’s story illustrates both the benefits of treatment—on medication, he had 22 productive years—and the complexities of treating a highly creative individual.

Conclusion
Patients’ experiences with their creativity, symptoms, and treatment follow many paths. Some are grateful to have their symptoms controlled so they can live and create more fully. Others are ambivalent, associating their illnesses with creativity out of a romantic fantasy or, as with Nash, from personal observation. Even when creativity is closely related to psychiatric symptoms, treatment may facilitate creative work. An inquiring attitude toward patients’ creative aspirations and activities—grounded in medical evidence but encompassing the complexities of their experiences and beliefs—can be rewarding for the clinician and facilitate patients’ creative work.

References
ETHICS QUIZ | Faith and Reason

» Cynthia M.A. Geppert, MD, PhD, MPH

For I do not seek to understand in order that I may believe, but I believe in order to understand. For this also I believe—that unless I believe I shall not understand. – St. Anselm

Mrs. P is a 54-year-old woman admitted to the acute medical unit with uncontrolled hypertension secondary to non-adherence and a non-healing ulcer, the result of venous stasis related to high blood pressure. For the first few days of the hospitalization she is pleasant and cooperative with the medical team and nursing staff.

On a Saturday morning of her first week in the hospital, Mrs. P begins to say that she no longer needs treatment for her hypertension or wounds because “God has told her she is healed.” Despite this unusual claim, Mrs. P continues to participate in the treatment plan saying, “I want to help the doctors and nurses, and so I will let them do what they need to do.”

On Sunday Mrs. P begins to tell the team that she doesn’t need to be in the hospital because she is healed. The team is concerned that Mrs. P will try and leave against medical advice. They become seriously concerned about her decision-making capacity and advise Mrs. P that they feel she needs to stay in the hospital as her blood pressure is still not well-controlled and she needs wound care several times a day. Mrs. P says, “I cannot leave the hospital. I don’t need to be here for me as I am healed, but God wants me to remain until I have ministered to everyone in the hospital.” Mrs. P is still accepting treatment. The team is beginning to really question Mrs. P’s mental state.

The team decides to call psychiatry. Because Mrs. P believes she has been healed and has a mission, they are now sure that she suffers from a mental illness. In addition, Mrs. P increasingly says she does not need medication because she is miraculously healed. It takes considerable time and effort to persuade her to take the medication. The psychiatrist, Dr. H, sees Mrs. P on Monday morning and conducts an extensive interview as well as record review. Looking at Mrs. P’s records, Dr. H sees that Mrs. P had been seen several years earlier as an outpatient because of irritability and depressive symptoms for which antidepressants were prescribed. She stopped taking the medication and did not return for follow up. There is no history of psychiatric hospitalizations, suicide attempts, violence toward others, or psychotic symptoms. Psychosocially, Mrs. P has been married for 25-years, has no known substance use, and is working full-time as a salesperson at a department store.

Mrs. P talks freely and volubly to Dr. H about her religious beliefs. She describes herself as a lifelong Pentecostal Christian and quotes scriptures to support her faith. When contacted, her husband confirms that his wife has always been very religious and often preaches to others at church. Dr. H has had interactions with persons from similar faith traditions in her own upbringing and so does not find Mrs. P’s beliefs to be delusional but understands that they may seem so to the medical team. In Dr. H’s judgment, Mrs. P does not currently meet criteria for a serious mental illness, although she is somewhat labile, which Dr. H believes is likely due to the stress of hospitalization. Mrs. P assures Dr. H that she intends to stay in the hospital to receive needed treatment.

Two days later, Mrs. P begins wheeling herself into other patient’s rooms to save souls. She also removes the bandage from her wound. Dr. J and the medical team agree it is wise to ask the Protestant chaplain to see Mrs. P. When he comes, she politely declines to talk with him, saying she has her own pastor. Mrs. P tells the psychiatrist resident the name of her church and pastor and that he can contact him. The pastor readily agrees to visit; he is a highly educated and psychologically astute minister. After more than an hour with Mrs. P he tells the psychiatry team that “our Church does believe in divine healing, but also that God heals through doctors. If you have a faith healing, there should be medical evidence. Mrs. P insists she is healed in spite of the evidence of her high blood pressure and infected leg, that is not rational. For now I have convinced her to work with the medical team.” Mrs. P’s response is that she respects her pastor but that he does not understand that God has performed a miracle.
Ketamine Potential

Continued from page 3

ketamine improves outcomes by increasing opportunities for personally meaningful events to occur. One caveat is that some studies have shown repeated dosing to be associated with fewer dissociative symptoms over time—at first glance this suggests that the antidepressant value of serial ketamine administration might be independent of hallucinogenic effects.

While this requires further investigation, it is also important to consider other interpretations of that evidence: that acclimation to altered states of consciousness may contribute to recall bias, that experimental protocols that frame dissociative symptoms as a “side effect” or “adverse event” may lead to underreporting if overall patient experiences of ketamine are positive, or even that the benefit of repeated dosing may be less related to cumulative drug effect than other factors, such as repeated interactions with care providers or increased opportunities for reflection and synthesis.

One study of repeated infusions demonstrated that antidepressant response very early in the course of treatment strongly predicted subsequent response; conversely, a lack of rapid response was a poor prognostic indicator for improvement after additional infusions. Whether positive early responses to ketamine are mediated by psychological factors, biological susceptibility, or both: it is necessary to clarify these factors in shaping sustainable strategies for treatment.

A cautious approach also seems imperative given evidence that ketamine demonstrates agonist activity at μ-opioid receptors and dopaminergic effects that may confer acute relief of depressive symptoms but also greater risk for positive drug reinforcement and dependence. With further insight into psychological responses mediated by ketamine, it may be that a therapy-based framework for ketamine administration optimizes treatment efficacy and sustainability, while also minimizing unnecessary drug exposure, adverse effects of chronic use, and dependency risk.

Further study needed

In one study, long-term abstinence in persons who were substance dependent was achieved with Ketamine Psychedelic Therapy (KPT), which incorporates 1 or 2 sessions of ketamine-facilitated existential reappraisal into an existential psychotherapy. Additional exploration would be needed to determine which therapeutic approaches most beneficially augment ketamine treatment and minimize risks for harm. Nevertheless, a more holistic approach to ketamine as a treatment modality may be better suited to recreate the marked, persistent effects of MDMA in patients with PTSD. For example, in one study sustained symptom reductions were achieved with 12 weeks of psychotherapy but with limited MDMA exposures of only three 8-hour sessions.

Another area that requires further investigation is how a patient’s past history might shape psychoactive responses. These personal and quite variable histories have been explored for some hallucinogenic agents but minimally for ketamine. The expectations and personal experiences of the individual user along with the external environment of use have been identified as critical factors in influencing subjective drug effects—coined “set” and “setting,” respectively—and are now considered well-established elements of human hallucinogenic research.

Therapies aimed at the pharmacological production of a transformative experience may depend on factors such as patient personality structure, preparation for treatment, emotional activation before drug intake, treatment context, and perceived quality of the experience. Given the unique psychological risks of hallucinogenic administration, it is recommended that clinicians screen for personal or family histories of psychotic or other severe psychiatric disorders prior to treatment. Clinicians are also encouraged to facilitate careful patient preparation for sessions, provide a safe physical environment for treatment administration, and allow for interpersonal support during sessions. These and other insights from hallucinogenic research might valuably inform treatment protocols for ketamine administration.

Conclusions

Ketamine is uniquely poised to make a tremendous impact on psychiatric care, even redefining boundaries for patients with variations in depressive disorders that were once thought to be “treatment resistant.” This synthesis of our emerging and old literature points to the unexplored hallucinogenic potential of ketamine. By further understanding the desirable psychoactive effects of ketamine, clinicians can build on initial treatment successes and maximize patient successes.

Future directions for research include:

- Further investigating the relationship between ketamine-induced psychotomimetic and dissociative effects and treatment efficacy
- Clarifying the connection between these effects and potentially desirable hallucinogenic experiences
- Exploring the therapeutic value of such elicted experiences
- Revisiting dosing strategies that account for existing phenomena and looking beyond dissociation as simply being an “adverse event”
- Incorporating psychotherapy-based frameworks into ongoing investigation
- Assessing set and setting factors that may shape treatment responses

Some answers and clues are likely to be found in the forgotten works of older psychedelic research. Agents like ketamine can exert their greatest therapeutic effect in the afterglow of profound alterations of consciousness, revealing a propensity for growth and healing that has not been evident to the suffering, depressed patient. Wherever the journey takes us, it is exactly the right time to bring together all the strands—brain and mind, old and new, caution and thrill—in assembling the unfinished story of ketamine.

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References

Telehealth

Continued from page 10

Potential barriers to the widespread use of telepsychiatry

Deslich and colleagues20 have summarized the benefits and constraints of using telepsychiatry within the current system of healthcare and have identified reimbursement, licensure, privacy, security, patient safety, and interoperability as challenges. Reimbursement. A “fee-for-service” approach is used by Medicare for payment that reimburses the clinician providing the telepsychiatric service. Reimbursement is typically provided for a diagnostic interview, pharmacologic management, and individual psychotherapy provided by psychiatrists and clinical psychologists. Services provided by other mental health providers vary by the state and may not be covered.

Infrastructure. The costs associated with developing a telemedicine program and the associated infrastructure and maintenance are typically non-reimbursable. In limited situations, reimbursement might be obtained from individual contracts, managed care, third-party payers, and Medicaid and Medicare. A structure for reimbursement of collateral charges (eg, technician, time line) is needed. Funds from the Federal Communications Commission’s Universal Service Fund subsidies can reduce the cost of telepsychiatry network connections. Individual states have also developed various funding streams to support telemedicine.

Licensure. For a physician to conduct a telemedicine consultation with a facility in another state, that physician must be licensed by both states licensing boards. Likewise, nurses and other allied health professionals have similar state licensing constraints.

Credentialed. A provider must be credentialed in the services that he or she provides, which in many cases necessitates credentialing in multiple systems. This significantly increases the burden on providers for completing applications, waiting for the review process to complete before services can start, and paying associated dues.

Impact on workplace behavior. Changes in a workplace require redefining the flow of daily work. If the goal of the organization is to promote the use of telepsychiatry, telepsychiatry must be integrated into the current process of patient care. Successful implementation requires that both clinicians and patients recognize that this approach to treatment is likely to improve outcomes by increasing access to care.

Privacy, security and HIPAA. Privacy concerns that are unique to telepsychiatry include the potential for non-clinical personnel to view telepsychiatry transactions and the off-camera presence of other clinical personnel. The increased use of IP videoconferencing over public networks also creates the potential for unauthorized access to protected health information. Technological solutions, such as in-codec encryption and virtual private networks, need to be implemented to address these issues, which necessitate training on secure storage and retrieval of data, as well as legal and ethical issues related to maintaining patient privacy.

Prescribing. The Ryan Haight On-line Pharmacy Consumer Protection Act of 2008, requires any practitioner issuing a prescription for a controlled substance to conduct an in-person medical evaluation at least once every 24 months. Liability. Some malpractice providers cover telepsychiatry as part of their standard coverage while others may require additional coverage for providing telepsychiatric services.

Conclusion

The potential for telepsychiatry to improve access to mental health care is evident. The current technology is adequate for most uses and continued advances are in progress. There are numerous applications already defined and more are ripe for exploration. Barriers to implementation are primarily of the human variety and will require a combination of consumer, provider, and governmental advocacy to overcome. Given the challenges associated with disparity in access to psychiatric care, telepsychiatry can help provide access to mental health care to everyone who needs it.

References


**Clinical presentation and subtypes**
OCD presents in equally in men and women, but at younger ages more boys than girls present with OCD. Comorbidities are common—ADHD and tic disorders are most common in children; depressive episodes and anxiety disorders are more common in adults. In the US, OCD is comorbid with panic disorder and agoraphobia, generalized anxiety disorder (33%), ADHD (26%), and major depression (42%).

Studies to identify subtypes of OCD have focused on OCD symptom factors as well as latent class group memberships. Most symptom factor studies recognize 4 main symptom factors: contamination-washing, aggressive-sexual-religious obsessions, counting-checking-repeating compulsions, and hoarding. Group classification of studies of OCD contain 3 general categories of patients: OCD comorbid only with anxiety, OCD with tic and grooming disorders, and OCD with depression, anxiety, grooming but fewer tics.

**Cognitive-behavior therapy**
In OCD, an exposure response prevention (ERP) approach is utilized to induce extinction learning (new-formed knowledge of safety over fear), and the patient is asked to refrain from responding ritualistically. CBT-ERP has been demonstrated to have efficacy in children and adults with OCD and needs to be considered as a robust component of treatment. While there are CBT strategies to augment treatment nonresponse in OCD, such as increasing frequency of visits and greater family involvement, this article focuses on somatic therapies.

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therapies for treatment-resistant OCD. Notwithstanding, CBT-ERP and medications provide the most effective combination approach for the treatment of most instances of OCD.

**Monitoring of treatment response**
The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) for adults and the Children’s Yale-Brown Obsessive Compulsive Scale (CY-BOCS) for children are used to assess the severity of OCD and follow treatment response. The Y-BOCS classifies OCD symptoms in obsessive and compulsive categories. The key symptoms are then assessed in toto for severity using 5 rubrics: time spent, distress caused, interference in daily activity, resistance to the symptom, and control over the symptom. These categories are scored from 0 to 4 for obsessions and compulsions separately, yielding a maximum total score of 40 points. The threshold for clinical severity is set at 16 or higher, with a 25% to 35% reduction in Y-BOCS scores in most clinical trials denoting response.

**Selective serotonin reuptake-inhibitors**
SSRIs are the mainstay of the pharmacologic treatment of OCD because of their efficacy and low adverse effect profile. OCD possibly requires higher or maximal doses of an SSRI and a longer treatment duration (4-6 weeks). All SSRIs can be used for the treatment of OCD including sertraline, fluoxetine, fluvoxamine, citalopram, and escitalopram. Fluoxetine, fluvoxamine, paroxetine, and sertraline are FDA-approved for use in OCD.

**Treatment-resistant OCD**
The definition of treatment-resistant OCD hinges on the non-response to 2 therapeutic trials of SSRIs/clomipramine, while treatment-refractory may imply greater degree of resistance to interventions, including non-response to SSRIs/clomipramine, augmentation strategies, and behavioral interventions (Figure).

The weight of the evidence suggests that beyond the use of 2 SSRIs there are several treatment algorithms that can guide the clinician in the management of treatment-resistant OCD. These approaches apply to 30% to 40% of patients who may not respond to CBT and first-line pharmacologic strategies. While pharmacologic strategies exist that augment or provide alternatives to first-line use of SSRIs, novel emerging somatic therapies are also available. Data supporting the role of cortico-subcortical dysfunctional neurocircuitry in OCD has led to targets amenable to manipulation by surgical or brain stimulation techniques such as psychosurgery, deep brain stimulation (DBS), and repetitive transcranial magnetic stimulation (rTMS).

**Neuroleptic augmentation**
Non-response to 2 full therapeutic trials of SSRIs (4 to 6 weeks of up to 200 mg for sertraline, 60 mg for fluoxetine, and 300 mg for fluvoxamine or higher doses) may warrant consideration of neuroleptic augmentation. Neuroleptics are typically considered when there is a positive but partial response to SSRIs. In cases of severe OCD, for example, a decrease of 25% to 35% symptom severity can result in incomplete functional recovery.

Findings have suggested that neuroleptic augmentation with haloperidol benefits patients with comorbid tic disorders. Neuroleptics, such as risperidone, can also be of benefit in non-tic-related OCD. Neuroleptic augmentation in OCD is possible with lower doses (eg, 0.5 mg to 1.0 mg of risperidone or equivalent doses of haloperidol). Aripiprazole has been used as an augmenting agent in OCD—isolated case reports suggest some efficacy. In a meta-analysis of adults with OCD, neither olanzapine nor quetiapine showed efficacy, while risperidone was of benefit for refractory patients.

**Clomipramine**
When SSRIs are not indicated or are ineffective, the choice is clomipramine, a tricyclic chlorinated analogue of imipramine. Clomipramine is a non-selective serotonergic re-uptake inhibitor (SRI), although its potency in affecting serotonin levels is unequal. Its efficacy in OCD has been amply demonstrated through randomized studies, which gained it FDA approval for this indication in adults and children. Dosing of clomipramine is guided by weight, with an optimal range of up to 3 mg/kg daily in single or divided doses. EKG baseline and periodic monitoring are indicated because of potential QTc changes.

It is noteworthy that clomipramine, the active compound, is metabolized to a partially active compound, desmethyl-clomipramine by cytochrome p450 enzymes CYP3A4, CYP2C19, and CYP1A2. A strategy to slow down this metabolic step by competitive antagonism with low-dose fluvoxamine (25 mg to 50 mg) can increase the potency of clomipramine, by increasing the active component clomipramine, but careful monitoring is indicated with this approach. Clomipramine blood levels are not predictive of response, but toxicity can be monitored, as well as the ratio of desmethyl-clomipramine to clomipramine.

**Glutamate modulators**
Preliminary data support the use of glutamate modulators as emergent alternative pharmacologic treatments for OCD in select cases. Among the glutamate-modulator agents with potential utility in OCD are riluzole, memantine, ketamine, and d-cycloserine. This class of drugs are not FDA-approved for use in OCD, and have to be used off-label.

Riluzole inhibits the release of glutamate at the presynaptic nerve cell terminus, which likely occurs by blockade of voltage-gated sodium channels.
Additional mechanisms may include increasing glial glutamate reuptake and facilitating clearance from presynaptic terminals.

In an open-label study of 13 adults with treatment-resistant OCD, 50-mg rituxoloz decreased the Y-BOCS scores by 35% in over half the sample. In addition, anxiety and depression symptoms decreased without adverse effects.12 A 12-week open-label study in 6 children and adolescents with OCD showed some benefits.13 However, in a larger sample of children and adolescents, a subsequent double-blind placebo-controlled trial using 100 mg of rituxoloz showed no significant improvement of OCD symptoms.14 Ketamine, a voltage-dependent, non-competitive and non-selective N-Methyl-D-aspartate (NMDA) receptor antagonist that acts by inhibiting the fluidity of calcium and sodium cations in the presence of glutamate and glycine. In adults with OCD, ketamine infusions normalize low GABA levels in the medial prefrontal cortex.15 While ketamine has shown utility in the treatment of refractory depression, only limited clinical trials exist in OCD.

In an open-label trial of 10 patient with refractory OCD, no response was seen for OCD symptoms; however, some improvement was seen for depression symptoms. Although OCD symptoms decreased overall, the decrease was only 12% of baseline severity.16 In a randomized, double-blind, placebo-controlled, crossover design, 10 patients with refractory obsessional OCD received sham infusion or ketamine infusion (0.5 mg/kg) one week apart. There was carryover effect for a positive effect of ketamine, with over a week of reduced symptoms. After one week, 50% of patients who received ketamine met criteria for treatment response.10 Seven studies using ketamine for adults with OCD are now listed in www.clinicaltrials.gov; 4 are actively recruiting.

Memantine is a non-competitive NMDA receptor antagonist with neuroprotective properties. Various studies of adults with OCD have shown significant promise for the use of memantine in refractory OCD. One case of a 15-year-old female with severe OCD reported a response to 5-mg bid of memantine without adverse effects. These results were sustained at the 9-month follow-up.11 Findings from a double-blind study of adults with moderate-severe OCD showed that 89% of patients had a positive response.12 D-cycloserine (DCS) is a selective partial NMDA receptor agonist that increases excitatory NMDA neurotransmission and resultant in the opening of the NMDA channel. The effect of DCS in the basolateral amygdala appears to facilitate extinction learning and can be used to accelerate the response to CBT-ERP.

A double-blind placebo-controlled study of youths with OCD compared CBT + DCS with CBT + placebo. DCS (0.7 mg/kg) was administered 60 minutes before each session. There was no significant difference in the treatment groups, with 57% symptom reduction for the CBT + DCS group and 41% symptom reduction in the CBT + placebo group, with no adverse effects.13 However, a later study showed a greater effect for a CBT + DCS group compared with CBT + placebo at one-month follow-up in 17 children with OCD.14 A meta-analysis of patients with DCS-augmented CBT for OCD, anxiety disorders, or PTSD found greater improvement from pretreatment to post-treatment but not at mid-treatment or follow-up, which suggests a mild augmenting effect for DCS.15 Given their putative neuroprotective effect, glutamate modulators may decrease the neurotoxicity associated with upregulated glutamate excitability, which may be present in cortical–subcortical neurocircuitry in OCD. However, at this time only exploratory use of glutamate modulating agents are indicated in refractory OCD, despite their potential promise.

Psychosurgery

Psychosurgery has been used in cases of refractory OCD since the 1950s; it is now supported by modern imaging methods and advanced surgical techniques that have improved precision. The preferred approaches are anterior capsulotomy (lesion of the anterior limb of cingulate cortex) and anterior cingulotomy (lesion of the anterior limb of the internal capsule).

In a review of 10 studies, a mean reduction of OCD severity of 37% for cingulotomy and 55% for capsulotomy was seen. The rates of full response were 41% (range 38% to 47%) for cingulotomy and 54% (37% to 80%) for capsulotomy. Serious or permanent adverse events occurred in 5.2% for cingulotomy and 21.4% for capsulotomy patients.16 It is still not possible to individualize treatment success to procedure or symptom profile, but a recent report suggests that hoarding symptoms may augur a worse outcome for psychosurgery17; inversely, reduced grey matter in the dorsal anterior cingulate cortex may predict a better outcome for psychotherapy.18 Findings from one study indicate that 38% of OCD patients who had bilateral capsulotomy were symptom-free at 12-month follow-up.19 A study of the cognitive adverse effects of gamma ventral capsulotomy (GVC) showed that compared to sham surgery, there was improvement in visuospatial memory; there was no decline in cognitive or motor function at 12 months.20 For a minority of treatment-refractory patients with OCD psychosurgery appears to be a viable alternative when other treatments have failed, but only preliminary data are available to predict successful outcomes.

Deep brain stimulation

In the late 1990s, deep brain stimulation (DBS) emerged as an alternative to psychosurgery for severely refractory patients with OCD. A review in 2010 by Greenberg and colleagues21 concluded that DBS treatment resulted in “clinically significant symptom reduction and functional improvement in about two-thirds of patients,” with good tolerability and transient adverse effects. Moreover, DBS is cost-effective for refractory OCD.22 Given the positive data, the FDA granted a Humanitarian Device Exemption for the use of DBS in refractory OCD.

The main anatomical targets for the placement of electrodes in the brain in DBS for OCD are the anterior limb of the internal capsule, the ventral striatum, the nucleus accumbens, and the subthalamic nucleus. Capsulotomy and DBS lead to similar clinical improvements, and both result in post-operative metabolic decreases in the anterior cingulate and the prefrontal and orbitofrontal cortices.

Transcranial magnetic stimulation

Cortical excitability may be increased in OCD in concordance with the neurocircuitry overactivity observed in cortico-subcortical loops in PET studies.23 In turn, neural overactivity may be reflected in the inability to inhibit intrusive thoughts, impulses, or images, which are coupled with the compulsive, driven repetitive motor responses or mental rituals. Transcranial magnetic stimulation (TMS), can target relatively discrete brain regions. It can penetrate the cranium and produce electrical activity in neuronal spaces (Faraday’s Law). Moreover, a depolarization of columns of neurons can result in neurocircuitry connectivity changes.

In a review of 15 randomized clinical trials of TMS in OCD, active stimulation was significantly superior for OCD symptoms.24 In 18 patients with OCD who participated in a randomized controlled trial of TMS compared with sham TMS, which targeted the supplementary motor area, right hemisphere resting motor thresholds were increased in association with improvements in the OCD Y-BOCS severity scores. Decrease in OCD severity scores also correlated with normalization of right-left resting motor thresholds asymmetry and increased right hemisphere short-interval cortical inhibition.25 These findings support earlier reports of decreased cortico-inhibition in patients with OCD, especially those with comorbid tics.

A review of randomized controlled trials of rTMS in OCD concluded that there was a significant difference in outcomes in favor of rTMS compared with sham rTMS (P < .001).26 Brain regions targeted with rTMS include the supplementary motor area, as well as left-, right-, or bilateral dorsolateral prefrontal cortex (DLPFC). It should be noted that patients with no major depression and less treatment-resistance appeared to respond better. In summary, TMS is emerging as an alternative treatment for OCD when refractory.

Conclusions

Treatment-resistant OCD is defined by failure of at least 2 adequate SSRI trials along with CBT-ERP. Evidence-based pharmacologic augmentation strategies include adding a low-dose neuroleptic, switching to clomipramine with or without low-dose fluvoxamine.

Emerging evidence exists for the use of glutamate-modulating drugs in refractory OCD, although no drugs are yet fully evidence-based in practice. For a smaller number of patients who are severely impaired despite vigorous treatment, psychosurgery and DBS are supported by substantial evidence for improvement of symptoms. Access to these treatments, however, may be problematic for some patients.

TMS is an emergent treatment with a growing evidence base for the treatment of OCD. However, whether it is preferably used as an alternative to mediation approaches, or will be useful in medication-resistant instances only, remains to be elucidated. In summary, beyond the use of SSRIs there are alternatives for the somatic management of treatment-resistant OCD.
Refactory OCD

Continued from page 25

References


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North Central Bronx Hospital (NCB) is a modern, state-of-the-art community hospital located in an attractive and safe residential Bronx neighborhood just 20 minutes north of Manhattan. It is a North Bronx Healthcare Network hospital affiliated with Jacobi Medical Center and a teaching site and academic affiliate of the Albert Einstein College of Medicine. It offers a full continuum of acute care inpatient and outpatient services in diverse Medical and Surgical specialties, including Psychiatry. The NCBH Department of Psychiatry has 70 Adult and Geriatric Acute Inpatient Beds, a Partial Hospital Program, Psychiatric Emergency Consultation-Liaison Service, an Adult Ambulatory Practice, and a community-based Assertive Community Treatment Program. The department employs evidenced-based best practices in providing the highest quality care to its patients, in a patient-centered approach that is respectful of their individuality, culture, and community.

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J-1 applicants welcome.

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

Butte County Behavioral Health Department is seeking a Medical Director based in Chico, California to manage department programs. The incumbent will perform approximately 50% direct services and 50% administrative work. In collaboration with the Assistant Director – Clinical Services, directs, evaluates, plans, establishes, and implements the medical services component and all clinical services of the department; participates in coordination of services across county departments and agencies; provides medical direction and consultation to all mental health programs and consultation to contracted agencies; particularly in the areas of quality improvement, medical monitoring, and peer review.

Starting salary is dependent on experience and is negotiable. The Department will also consider a Medical Director on a contract basis. Salary for a contracted Medical Director is negotiable. For additional information please contact Geoff Davis, at (530) 897-2306 or gdavis@buttecounty.net for a recruitment packet and appointment to speak with the Behavioral Health Department Director. Please visit the Butte County Human Resources Department website for more information, to review the recruitment packet, and to apply for the opportunity:

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For inquiries, please contact Anthony Guerrero, MD at GuerreroA@dop.hawaii.edu or (808) 586-2900. EEO/AA Employer.

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Mark Blakenev, Voice: 972-420-7473, Fax: 972-420-8233, email: mark.blakenev@horizonhealth.com

EOE

Assistant/Associate Professor of Clinical Psychiatry

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EOS M/FD/V

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• Starting bonus

Life in Oregon:

Nestled in the heart of Oregon, the Mid-Willamette Valley and central Oregon Coast are ideal locations to work, live and raise a family. From spectacular ocean views to recreation inspiring mountains, our communities -couple with our friendly, unique and adventurous residents - are unmatched places to call home. With affordable housing, infinite entertainment opportunities, good schools, thriving art communities, numerous wineries and microbreweries and great food, the advantages of living here are endless!

For more information, or to apply please visit www.samhealth.org/docjobs or contact Annette Clovis at 541-768-4419 or aclovis@samhealth.org

Pennsylvania

PennState Health Milton S. Hershey Medical Center

The Penn State Health Milton S. Hershey Medical Center Department of Psychiatry is currently recruiting board eligible/certified psychiatrists for inpatient and outpatient positions in both adult and child psychiatry.

We are a growing, vibrant department in a strong academic medical center. We host specialty clinical and research programs, including research that crosses the translational spectrum. Our educational programs include adult psychiatry residency, child fellowship, psychology internship, externship and post-doctoral fellows. We have a strong collaboration with basic and clinical science in other neuroscience disciplines across several Penn State campuses.

With our clinical partner, the Pennsylvania Psychiatric Institute, the Department staffs several inpatient and partial hospital programs for children and adults, 89 inpatient beds, ECT and other neuromodulation services, specialty sleep and eating-disorders programs, and expanding psychiatric consultation and integrated care programs for Hershey Medical Center.

Successful candidates should have strong teaching as well as clinical skills and, optically, potential for scientific and scholarly achievement. We offer an attractive compensation package commensurate with qualifications. Tenure-track positions are possible.

For consideration, send your CV to: Jenna Spangler Physician Recruiter Phone: 717-531-4271 Email: jspangler2@pennstatehealth.psu.edu The Penn State Milton S. Hershey Medical Center is committed to affirmative action, equal opportunity and the diversity of its workforce. Equal Opportunity Employer – M/W/V/D

Virginia

MEDICAL DIRECTOR - PSYCHIATRIST

Southwestern Virginia Mental Health Institute (SWVMI), located in Marion, Virginia, is seeking a Medical Director. We are a progressive Joint Commission accredited behavioral health hospital, with 179 beds serving adult, geriatric, and forensic patients offering a team oriented environment, medical school affiliation, and an excellent compensation and benefits package including sign-on bonus, moving and relocation, and loan repayment. We seek a board certified Psychiatrist with strong leadership/management experience in a psychiatric hospital with a commitment to recovery principles. With the assistance of the Associate Medical Director, the position is responsible for directing all providers in the practice of quality care according to standards and benchmarks set by the Virginia Department of Behavioral Health and Developmental Services, licensing boards and accrediting agencies. Occasionally, the Medical Director will provide backup coverage in a clinical role as a treatment team Psychiatrist. The Medical Director participates in facility and state-wide strategic planning and improvement initiatives through membership on the SWVMHI Executive Team and the Commonwealth of Virginia’s system of health and quality care. The chosen candidate must be licensed to practice medicine in Virginia. SWVMHI is an equal opportunity employer. Persons with disabilities are encouraged to apply.

We invite you to visit our website at www.swvmhi.dbhds.virginia.gov for more information, or if interested, please submit your curriculum vitae to: Kim Sayers kim.sayers@dbhds.virginia.gov (276) 783-1204

Wisconsin

PSYCHIATRIST

Clinical excellence and quality living, Winnebago Mental Health Institute (WMHI), is seeking a Board Certified/Board Eligible (BC/BE) psychiatrist. This position provides diagnosis and treatment of assigned patients and works with a multidisciplinary treatment team on an inpatient unit. Excellent fringe benefit package.

Winnebago Mental Health Institute is a 280-bed psychiatric facility accredited by the Joint Commission located near Oshkosh, the center of the Fox River Valley, one of the fastest developing areas of Wisconsin. The Oshkosh area offers a safe environment, rich in cultural and recreational opportunities. Excellent public and private schools with three universities in the area. Oshkosh is within 1 1/2 hours of Milwaukee or Madison. Information on WMHI can be found at http://www.dhs.wisconsin.gov/ MH_Winnebago/

For application instructions, go to www.wisc.jobs and search for Psychiatrist (Job Announcement Code: 17-02966).

Contact:

Medical Director’s office P.O. Box 9, Winnebago, WI 54985-0009 Phone: (920) 235-4910 ext. 2210

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