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#### Joshua D. Feder, MD Editor-in-Chief

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#### **Learning Objectives**

After reading these articles, you should be able to:

- 1. Evaluate the effect of antipsychotics on the mortality of youth patients.
- 2. Assess and treat youth patients for psychiatric impacts of traumatic brain injury.
- Identify some of the tasks that can help clinicians prepare for volunteer work with underserved or at-risk trauma populations.
- 4. Summarize some of the current findings in the literature regarding psychiatric treatment for children and adolescents.

# Evaluating the Mortality Risks of Antipsychotics in Children and Youths

here are reports of increased mortality from antipsychotics in older adults. Now, we have a paper showing increased mortality in children, adolescents, and young adults aged 5–24 years. Given the frequent use, both on- and off-label, of antipsychotics, does this change how we use them? And if so, how?

#### What we already know

In 2005, the FDA added a black-box warning to all atypical antipsychotics. The agency cautioned against increased mortality when these drugs were used to treat "dementia-related psychosis." No single medication accounted for the risk, and it was thought to be classwide. The FDA found a 1.6- to 1.7-fold increased risk of mortality with atypical antipsychotics. Fatality rates were 4.5% in drug-treated patients compared to

#### **In Summary**

- Although the FDA black-box warning on increased mortality for typical and atypical antipsychotics applies specifically to elderly patients, recent studies indicate this risk is applicable to high-dose use in youth and young adult populations as well.
- A 2018 study showed that youth patients taking high-dose antipsychotics (above 50 mg chlorpromazine or equivalent) had an increased risk of death comparable to the risk in older adults.
- Clinicians should be aware of the possibility of increased risks in pediatric vs adult patients when prescribing antipsychotics and dose accordingly.

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### Practicalities of Providing Volunteer Services for Youth Refugees or Asylum Seekers Suzan Song, MD, PhD

Director, Division of Child/Adolescent & Family Psychiatry; Associate Professor, George Washington University Medical Center. Human rights advocate in program development, scholarship, and mentoring of residents' projects in GWU's Global Mental Health Track

Dr. Song has disclosed that she has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

We bear of many children and adolescents who are refugees, most seeking asylum. There are calls for professionals to meet the needs of these people. How hard is it to do this—to take time off from regular practice to work in a different setting? It's easier than you might think. However, is this kind of work as rewarding as people say? Can it be a remedy for burnout? What are the liability issues? We interviewed Suzan Song, MD, PhD, who is a humanitarian protection advisor for the United Nations.



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**Dr. Song:** Globally, I've worked with former child soldiers in Sierra Leone, Liberia, and Burundi; worked in Haiti post-earth-quake; taught child psychiatry in Ethiopia; and consulted on a parent-infant intervention in the Democratic Republic of Congo. When the Syrian crisis broke, I was a humanitarian protection advisor from 2013 to 2015 for displaced Syrian adolescents in Jordanian refugee camps. Since the 2016 U.S. election, most of my work has been domestic, specifically related to unaccompanied and separated youth and families; torture survivors and asylum seekers; survivors and victims of human trafficking (both sex and labor); and families, including hostage families.

CCPR: Many of us feel overextended in our daily work, and yet doctors working in pro-bono settings often report that volunteering is a stress reliever. Can you speak to this?

**Dr. Song:** The benefits of volunteer work are many, chief among them the satisfaction of helping people in need of care who would otherwise go without. The gratitude of many families is reward enough for many doctors doing pro-bono work. But I also am paid for most of my work. I have a small pro-bono clinic, but otherwise am paid. I think it's important for

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ple who are well-trained and able to give excellent care. **CCPR:** Do you have an example of a particularly poignant moment?

**Dr. Song:** Sure. Every first encounter I have with a survivor—whether a victim of torture, a separated youth, or a victim of human trafficking—is poignant. For most, it's their first time seeing a psychiatrist, talking about their past or present struggles. It truly is a gift to be on the receiving end and to feel empowered to help in some meaningful way. The traumatic experiences are of course harrowing, but because I've heard just about everything now, I'm more fascinated by what aspects of the human spirit help the person not only tolerate, but actually engage with life. **CCPR: Can you give us a specific example?** 

agencies to prioritize the emotional lives of survivors, in part through hiring peo-

Dr. Song: Just the other day, someone high up in the government asked me to see someone urgently. So I saw this surgeon from West Africa in my pro-bono clinic. He was from a very poor, rural part of his country where none of his siblings attended school. His uncle supported and inspired his interest in learning, and he ended up not only becoming a surgeon, but earning a fellowship to get specialized training in eastern Europe. He returned to his home country to practice at a time when there was a political uprising. A high-ranked government official was shot during a protest, and my patient was called to do the emergency surgery. The official ended up dying, despite my patient's best efforts, and my patient was put in jail and tortured, awaiting execution for being a political dissident. He was able to escape with the help of a captor whose mother he was a surgeon for. This is a common type of person seeking asylum. It's common for such people to have experienced torture. But the ability of this man to forgive, restore hope, and find personal agency (after only 2 sessions) was very striking. I learned a lot from him and think of him often. CCPR: Paint us a picture of a typical day. Do you work in a regular office? Do

parents, kids, or both? Are you prescribing medications or doing therapy? Dr. Song: In my pro-bono clinic, I have 1 day every 2 weeks scheduled specifically for these kinds of patients. I have very good relationships with community organizations and often go there to see patients if they can't come to my downtown office. Most patients are referred by about 5 or 6 different community agencies and government agencies (Department of Health & Human Services, Department of Homeland Security, etc), so they know me and my work, and I tend to take on the most difficult cases. If they aren't too difficult, I provide free consultation to the community agency's therapists and counselors to help them build confidence and skills. I give trainings to one torture-survivor program in the community and have loved watching the counselors grow and feel more comfortable taking on hard cases. Even with "just med management," I always incorporate therapy (and do so in my general practice as well), so I do talk therapy and meds if needed. I speak

you have regular appointments? Do you have a translator? Are you talking with

**CCPR:** What about secondary trauma?

with parents and kids, and do family sessions if needed.

Expert Interview - Continued from page 2

lawyers are taking the brunt of the trauma. They're doing amazing work but don't have any training on trauma or resiliency. I was shocked when first doing training for the State Department/Department of Defense on human trafficking—most of them had never undergone formal training in trauma. Reporters also need a lot of support; they're asking the critical questions and are listening to ongoing human rights abuses, then have to leave. Reporters appreciate our help.

CCPR: What type of training would a child psychiatrist need to do ahead of time, and how would the psychiatrist obtain that training?

**Dr. Song:** It depends on what you're interested in doing. If you want to work locally with survivors of forced displacement (refugees, asylum seekers, survivors of torture, separated youth, etc), then having training in trauma-informed care and cultural sensitivity is critical. The National Child Traumatic Stress Network (https://www.nctsn. org) has free online training and is a great resource in general. I've always learned the most from supervisors, though, and have stayed in touch with many supervisors from training, as well as hired my own clinical supervision.

**CCPR:** What about cultural considerations?

**Dr. Song:** Understanding culture and context is critical to all of our work with patients. There have been two main approaches to understanding the role of culture on mental health. One approach, termed "etic," is to look at the differences across cultures in terms of a general standard. An etic approach might look at overall rates of depression or anxiety across a variety of regions where refugees experience family separation.

**CCPR**: And what's the second approach?

**Dr. Song:** The other approach, termed "emic," describes distress in one's own cultural terms. For instance, the separation of families may be experienced even more

"Liability issues are relatively straightforward. For example, my pro-bono work is covered by my institution's malpractice. It's always good to check to make sure that the organization offers malpractice coverage—including tail coverage—but volunteering is often in the scope of your job description."

Suzan Song, MD, PhD

acutely in cultures where family units are emphasized over individual achievements, often the case in Middle Eastern cultures; this perhaps results in different rates of depression or anxiety for people from those places facing such stressors. An entire field of cultural and transcultural psychiatry has discussed this at length, but for the general practitioner, it helps to be curious, to ask questions when unsure, and to understand the unique role of culture and context on a person. Clinicians performing the evaluations should attempt to educate themselves about the history and cultural beliefs of the refugee populations they serve. The CDC's website has some cultural sensitivity tips for clinicians who will be performing evaluations (https://tinyurl.com/yxrdj7r4). The DSM-5 also has a cultural formulation interview and supplementary modules that can be good resources to start with. For cultures where information is limited, we learn as we go.

CCPR: Do you have an example of cultural sensitivity that you picked up on?

**Dr. Song:** Sure. One example was in the refugee camps on the Syrian border; I knew it was inappropriate to wear shorts and thought pants would be fine. However, my ankles were showing, and that was thought inappropriate. Interpreters and your local partners should be critical in keeping you in check to make sure you're aware of cultural nuances.

**CCPR**: What about malpractice coverage? Is that part complicated?

**Dr. Song:** Liability issues are relatively straightforward. My pro-bono work is covered by my institution's malpractice. It's always good to check, but volunteering is often in the scope of your job description. Check to be sure that the organization offers malpractice coverage, including tail coverage. In the US, you will likely need to become licensed in the state you are working. Overseas work typically does not require licensure in the country you'll be working in, but you do need to check which laws apply to your situation in your destination country (https://sites.tufts.edu/jha/archives/2111). You may need to be working under the auspices of a university, a hospital, or an international organization like a non-governmental organization (NGO).

CCPR: That's kind of a relief. How do you prepare your current patients for these forays? How do your preparations change depending on the length of time you're away?

**Dr. Song:** For my medication management patients that I see once a month, I just schedule around the time. But for the therapy patients, I just tell them, "Next week, I have to be out of town." If it's longer than that, I have someone who covers my patients while I'm away. So most people are actually fine. Some of the work, especially in active humanitarian conflicts or my work with the UN, can be a bit harder with scheduling. They may call you and say, "We need you in 2 weeks or within 3 weeks to go abroad." It's very short notice, so then I say, "Yes, I can do this now," or I say, "No, I can't do it." There are options.

Evaluating the Mortality Risks of Antipsychotics in Children and Youths

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2.6% in placebo groups (https://tinyurl.com/ycnt4nhl). Death was mostly due to heart-related events, such as heart failure and sudden death, or infections—mainly pneumonia (Schneider LS et al, *JAMA* 2005;294(15):1934–1943).

In June 2008, the FDA extended the black-box warning to typical antipsychotics. Researchers, surprisingly, found that typicals increased the risk of death even more than atypicals. The risk was greatest with higher doses (Wang PS et al, *N Engl J Med* 2005;353(22):2335–2341). As with the earlier black-box warning, this risk applied specifically to elderly patients with dementia-related psychosis.

#### New data on young people

Ray et al recently published a retrospective cohort study of Tennessee Medicaid enrollees aged 5–24 years (Ray WA et al, *JAMA Psychiatry* 2019;76(2):162–171). Patients with major medical illnesses, schizophrenia, or Tourette syndrome were excluded. Three groups were studied: new antipsychotic medication users taking more than 50 mg chlorpromazine equivalents (high-dose group), new antipsychotic medication users taking 50 mg or less chlorpromazine equivalents

(low-dose group), and a control group who were taking ADHD medications, antidepressants, and/or mood stabilizers.

The study recruited 189,361 children and youths in the control group (mean age 12.0 years), 28,377 in the low-dose group (mean age 11.7), and 30,120 in the high-dose group (mean age 14.5). The majority of patients in all groups were male. The primary outcome was deaths during study follow-up while out of hospital or within 7 days after hospital admission.

The troubling finding was that patients in the high-dose group had an 80% (1.8-fold) increased risk of death, which is comparable to the risk in older adults. Even more troubling, the risk of death from cardiovascular or metabolic causes, which should be rare in this population, increased 4.3-fold. There was no elevated mortality risk in controls or with antipsychotic doses of 50 mg or lower.

The groups, however, were not equal. High-dose antipsychotic users had more mood disorders and other psychiatric comorbidities. They were more often prescribed mood stabilizers and other psychoactive drugs. They also had higher rates of diabetes,

obesity, smoking, cardiovascular disease, and opioid use at baseline. Researchers attempted to control for these factors in their analysis, but it's difficult to control for such confounding issues in a retrospective study.

#### Conclusion

What's the takeaway message here? This is a single data point, and it was based on a large retrospective analysis. It's unlikely that any prospective trial of the dangers of antipsychotics could ever be ethically conducted on children, so this type of data may be all we have to go on in making decisions. It's certainly cause for concern, but it should not lead to a sweeping change in the way we practice. Nonetheless, given the potential dangers, we recommend extremely careful use of antipsychotic medications in all populations. We propose the following:

- Use other measures before antipsychotics, including psychosocial interventions and other less hazardous classes of medications, such as antidepressants
- Make sure you have a clear FDAapproved indication (or a clearly documented and discussed rationale if off-label)
- Monitor for side effects, including metabolic, cardiac, and neurological
- Limit antipsychotic therapy to the lowest dose and shortest duration possible

Antipsychotic Dose Equivalencies		
Drug	Approximate CPZ 50 mg Equivalent Dose (mg)	Usual Pediatric Dosage Range (mg/d)
Aripiprazole (Abilify)	3.75–5	2–30
Asenapine (Saphris)	2–5	10–20
Chlorpromazine (Thorazine)	50	10–200
Fluphenazine (Prolixin)	1	0.25-10
Haloperidol (Haldol)	1	0.25-10
Iloperidone (Fanapt)	1.5-2	No indications in children
Lurasidone (Latuda)	8–20	40–80
Olanzapine (Zyprexa)	2.5–3.75	2.5–20
Paliperidone (Invega)	1–1.5	3–12
Perphenazine (Trilafon)	4	8–64
Pimozide (Orap)	1	1–10
Quetiapine (Seroquel)	37.5–75	50–800
Risperidone (Risperdal)	1	0.5-6
Ziprasidone (Geodon)	20-30	40–160
Source: https://cpnp.org/guideline/essentials/antipsychotic-dose-equivalents		

High-dose antipsychotic CCPR use is usually a VERDICT: poor practice, and while not a definitive statement, the Ray et al study should give any clinician further pause. This paper talks of a very low threshold for "high-dose" antipsychotics. Since clinicians frequently dose antipsychotics in children above the threshold in the article, we have provided the "Antipsychotic Dose Equivalencies" table at left so that you will know when you are exceeding these thresholds, even though they may be within the commonly accepted "usual dosing range" of the medication.

### Psychiatric Aspects of Mild Traumatic Brain Injury in Children and Adolescents

*Joshua Feder, Editor-in-Chief,* Carlat Child Psychiatry Report

Dr. Feder has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

**ditor's note:** Mild traumatic brain injury (mTBI) accounts for about ■ 90% of all TBI cases in children and adolescents, or about 180 out of every 100,000 cases in the US. With 2 million cases between 2005 and 2009, we are seeing many patients who have TBI as part of their history. How does it affect them? What do we do about it? Dr. Jeffrey Max spoke on this topic when he was recently recognized for his significant contributions to the study of head injury in children and adolescents. He presented at the James Harris Symposium on Neurodevelopmental Disorders on the topic of mild traumatic brain injury (mTBI) in children and adolescents at the recent annual AACAP conference in Seattle, WA.

#### Traumatic brain injury vs concussion

Mild traumatic brain injury (mTBI) is used interchangeably with the term concussion. Specifically, in our studies, children with mTBI were included if they had an observed loss of consciousness, a Glasgow Coma Scale (GCS) score of 13 or 14, or a GCS score of 15 with at least two symptoms of concussion documented by the emergency department medical staff (eg, vomiting, nausea, headache, diplopia, dizziness, transient neurological deficits). As a reminder, the GCS ranges from 3 to 15. A GCS of 13-15 with no other findings is considered "uncomplicated mild"; GCS 13–15 with abnormal neuroimaging findings is called "complicated mild"; GCS 9-12 is considered "moderate", and GCS 3-8 is classified as "severe" (https://www. glasgowcomascale.org).

### Psychiatric disorders associated with TBI

In a multisite prospective psychiatric study, the rate of new-onset psychiatric disorders in children hospitalized for mTBI ranged from 28% to 36% during the first 2 years post-injury. Many disorders seemed to be enduring. This rate

was substantially lower for mTBI in children treated in the emergency department and discharged.

A systematic review of controlled studies of mTBI (Emery CA et al, Can J Psychiatry 2016;61(5):259-269) found higher rates of psychiatric complications as compared with healthy non-injured children. ADHD is the most frequently cited new-onset disorder associated with mTBI. In one retrospective study, the rate of attention problems 2 years after mild TBI resulting in hospitalization was 6 times the rate in non-injured children. In another retrospective study, about a third (36%) of children hospitalized with mild TBI developed a new-onset ADHD, which has been termed "secondary ADHD" (SADHD).

SADHD has not yet been studied comprehensively in a cohort limited to mTBI. However, when this syndrome is identified in children with a history of mild to severe TBI that resulted in hospitalization, it is apparent that SADHD has differences compared with developmental ADHD. Results from prospective studies showed lower rates of SADHD than in retrospective studies (ie, in the region of 15%). SADHD is associated with lower pre-injury socioeconomic status, lower pre-injury adaptive function, higher pre-injury psychosocial adversity, more impaired pre-injury family function, greater severity of TBI, comorbid problematic post-injury emotional lability and disruptive behavior, and lower postinjury adaptive and intellectual function. Neuropsychological correlates of SADHD 6-12 months post-injury show deficient working memory, attention, and psychomotor speed compared to children with developmental ADHD. Limited treatment studies suggest a positive response to stimulants, but findings are mixed.

Rates of mood swings occur 8 times more often for children and teens with mTBI than for non-injured children and teens, and oppositional defiant disorder (ODD) occurs 5 times more often. Children injured before age 3 have been found to be more withdrawn between ages 4 and 6. In teens who suffered mTBI before age 5 and were hospitalized for it, the rate of later substance use disorders is 3 times the rate in uninjured teens.

Personality changes are not uncommon after mild TBI, including emotional lability, aggression, disinhibition, and trouble learning from mistakes.

Prior psychiatric history impacts the risk of having a TBI as well as a secondary psychiatric condition after head injury. Children who were already aggressive by age 5 are more likely to have TBI between ages 5 and 10. Up to half of those with psychiatric difficulties after mild TBI have a history of psychiatric conditions diagnosed prior to the injury. Pre-injury Child Behavioral Check List (CBCL) scores are higher for those who have had a mild TBI versus uninjured children and teens.

### Assessing for new-onset psychiatric disorder

How do we define a new-onset psychiatric disorder? There needs to be a fairly distinct difference between pre-injury and post-injury symptomatology. For instance, the initial appearance of an anxiety disorder in a child with pre-existing ADHD would qualify as a new-onset disorder. However, if conduct disorder develops in the context of a pre-existing ODD, or if bipolar disorder develops when there is a diagnosis of pre-injury depression, these disorders would not be classified as new-onset disorders. The latter two disorders may be the natural progression of pre-injury disorders.

In an HMO study conducted in Seattle among children age 14 years or younger, hospitalization after mild TBI was associated with a three-fold greater prevalence of a new-onset psychiatric disorder vs non-injured matched controls: a general rate of 30% with a psychiatric diagnosis vs 20% (Massagli TL, Arch Phys Med Rehabil 2004;85(9):1428-1434). [Editor's note: That 20% is consistent with the commonly cited rate of psychiatric diagnosis in children and teens.] There was a two-fold risk of psychiatric diagnosis when there was no such diagnosis prior to mild TBI; and the relative risk of hyperactivity was 8.

#### Treating mild TBI

How should we manage our patients with histories of mild TBI who manifest

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### **Building Self-Regulation in Children Stuart Shanker, PhD**

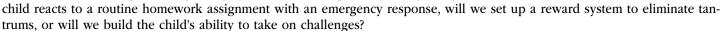
Professor of psychology and philosophy at York University, Toronto

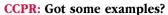
Dr. Shanker has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

"Self-regulation" has become a buzz phrase to help children manage stress, become resilient, and stave off depression, anxiety, and post-traumatic stress disorder. To gain a better understanding of this concept, we interviewed Stuart Shanker, PhD, founder and CEO of the MEHRIT Centre (https://self-reg.ca). Dr. Shanker sets up self-regulation programs in school districts across Canada. He is the author of Self-Reg: How to Help Your Child (and You) Break the Stress Cycle and Successfully Engage With Life (Viking Press).

#### **CCPR:** Dr. Shanker, how do you define self-regulation?

**Dr. Shanker:** Self-regulation is the broad set of responses to stress—some helpful, some counterproductive—that clinicians need to step back and assess in each child before planning treatment. There are two extremes for stress responses: fight, flight, or freeze; or responding thoughtfully. The issue is, when a child reacts to a routine homework assignment with an emergency response, will we set up a reward system to





**Dr. Shanker:** Sure. Children often use electronic devices to escape into a trancelike state. They don't know what calm feels like. When you turn the device off, it's aversive coming back to reality. We have to help children and teens shift to functional, growth modes of self-regulation such as physical or social activities. Another example is children with autism, who often find eye contact stressful and shut down. This limits their ability to engage with others. If we merely train the child to look at us, the child experiences more stress and may act out. Instead, we can reduce the stress of social interactions so that the child can use those interactions to gain skills.

#### CCPR: What does the research say about building self-regulation and stress tolerance in children?

**Dr. Shanker:** Studies at York University and University of Michigan looked at patterns of stress responses in children with autism spectrum disorders, who typically have trouble regulating themselves (Casenhiser DM et al, *J Autism Dev Disord* 2015;45(3):846–857; Solomon R et al, *J Dev Beb Pediatrics* 2014;35(8):475–485). They looked at how the children managed sensorimotor, communication, visual, and executive function, and used relationship-based interventions. The children became more regulated, connected with others, and communicative.

#### CCPR: How does this apply to the usual patient and family we see?

**Dr. Shanker:** These approaches come from general child development and are even more useful with children who are less rigid in their thinking. When caregivers adjust for children's patterns of strengths and challenges, they do a better job of connecting and communicating, and the children become more confident in meeting daily challenges.

#### **CCPR**: How do you assess self-regulation?

**Dr. Shanker:** Catalog the child's responses to situations at home, school, and activities, including cognitive, communicative, and social demands. This shows you where you can build on good function and where to reduce stress to build more gradually on harder situations. Both tantrums and withdrawal indicate that a child has developed a sensitivity to stress, a negative bias. If you explain the behavior as making poor choices and punish the child, all you're doing is increasing the stress. In your office, if you show a child a neutral photo, the child will tend to see it in a negative light.

#### **CCPR**: How do you help the child?

**Dr. Shanker:** Help caregivers distinguish between misbehavior and stress behavior and not treat misbehavior as volitional. As they reframe their child's behavior, their own distress drops. Then help them become stress detectives. Maybe smell is a huge stress for this kid. Are the things the child is doing to self-regulate also hidden stresses? The third step is to reduce the stresses. We had a little girl who experienced sitting at a separate chair and desk as very stressful. But a connected chair-desk worked great for her.

#### **CCPR:** Then what?

**Dr. Shanker:** Help the child learn what calm really feels like, to identify the signs of becoming overstressed and get back to calm. Finally, help caregivers to be reflective, always asking "Why am I reacting this way?" "Why is my child reacting this way?" and "How might I respond?"

CCPR: Thank you for your time, Dr. Shanker.

## Research Updates IN PSYCHIATRY

#### GENDER DYSPHORIA

Rapid-Onset Gender Dysphoria in Adolescents and Young Adults

**REVIEW OF:** Littman L, *PLOS ONE* 2018;13(8):e0202330

Rapid-onset gender dysphoria (ROGD) is a newly coined but non-standard-ized characterization of gender dysphoria (GD). In this conceptualization, GD begins abruptly during or after puberty in adolescents or young adults (AYAs) with no prior symptoms of GD. Clusters of GD outbreaks have been noted by parents. These outbreaks have occurred in pre-existing friend groups in which members became GD or transgender-identified. ROGD is often preceded by an immersion in social media.

Littman studied this phenomenon further. She placed a link to a 90-question survey, consisting of multiple-choice, Likert-type, and openended questions, on three websites where parents had reported ROGD. These websites were all notable in that they questioned the medicalization of gender-atypical youth. Data were collected anonymously via SurveyMonkey.

Overall, 256 parents completed questionnaires meeting study criteria. The sample of AYAs was predominantly white, academically gifted, and female sex at birth (82.8%); it had a mean age of 16.4 years. Data collected included:

- Many AYAs (62.5%) were diagnosed with at least one mental health disorder prior to the onset of GD. Anxiety (63.4%) and depression (58.8%) were the most common. Nearly half of the group had engaged in self-harm.
- Several had experienced a family stressor (44.2%) or sex-/gender-related trauma (30%) prior to the onset of GD.

- 30% of AYAs were not willing to work on their mental health needs before seeking gender treatment.
- For parents who knew the content of their child's GD evaluation, alarmingly, 71.6% reported that the clinician did not explore issues of mental health, previous trauma, or alternative contributors to GD before continuing. 70.0% reported the clinician did not request any medical records.

#### **CCPR'S TAKE**

It is encouraging that individuals who previously might have been underdiagnosed and undertreated are now gaining visibility. These findings are important to take in context, including the potential for bias in the sample websites as well as the usual caveat that such data cannot be seen as causative per se.

As clinicians, we need to identify trauma and psychopathology, and we need to manage those difficulties before addressing the AYA's decision regarding sex reassignment or gender transition. Online content and friend groups may influence susceptible AYAs to believe that other psychological distress should be understood as GD. Some AYAs are engaged in online interactions where they are coached in what to say to clinicians, perhaps misrepresenting symptoms, in order to obtain their desired treatment. As a result, it is vital to gather information from collateral informants, including parents, pediatricians, and therapists, and to consider the role of such things as peer interactions, media influences, abuse, family dynamics, and psychodynamic processes.

We would do well to encourage AYAs and parents to allow time for the process to unfold. It may then become clearer whether the symptoms are stable versus an expression of other clinical distress.

—Reban Aziz, MD and Karen Hoffman, PhD. Drs. Aziz and Hoffman have disclosed that they have no relevant financial or other interests in any commercial companies pertaining to this educational activity.

#### **ADHD**

How Helpful Is Computerized Testing for ADHD?

**REVIEW OF:** Hollis C et al, *J Child Psychol Psychiatry* 2018;59(12):1298–1308

With busy clinic schedules and the ever-burgeoning load of documentation, computerized diagnostic aids are in more demand than ever. For ADHD, the gold standard is still a clinical assessment with information from parents and teachers, but those reports are difficult to obtain and time-consuming to go through. In these situations, computerized testing may help boost clinical decisionmaking.

One common testing procedure is continuous performance testing (CPT), which involves a subject's ability to quickly respond to a given stimulus while not responding to distracting stimuli. QbTest is a specific testing method that combines computerized CPT and an infrared camera measuring how much the patient moves around during the 20-minute test. In 2014, the FDA cleared QbTest as a tool to supplement a clinical assessment for ADHD, meaning that it reached the diagnostic sensitivity and specificity thresholds required by the FDA. However, like all such tests, it is not meant to be a standalone diagnostic test. This study attempted to see how useful QbTest is for clinicians.

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## Research Updates IN PSYCHIATRY

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software. The sample, drawn from UK outpatient clinics, was nearly 80% male and 90% white. All participants took the QbTest at the beginning of the study period, then were divided into two groups. The QbOpen group had the results revealed to the clinician immediately, while the QbBlind group withheld the results. The primary outcome was the number of appointments it took to rule in or out an ADHD diagnosis, with secondary outcomes including appointment duration and clinician's confidence in the diagnosis.

At the end of 6 months, the youth in the QbOpen group were 44% more likely (hazard ratio = 1.44, p = 0.029) to have reached a diagnostic decision than those in the QbBlind group. However, over 30% of the entire sample had still not reached a diagnostic decision at 6 months. Interestingly, ADHD was excluded at double the rate when clinicians had access to the ObTest report (p = 0.049), and they were more confident in their decision overall (p = 0.022). The appointment duration for the QbOpen group was reduced by about 15% (p = 0.001). The authors also did a cost analysis concluding that QbTest was largely cost-neutral to the healthcare system.

#### **CCPR'S TAKE**

As clinicians, we need to maintain diagnostic pre-eminence over supplemental tests for ADHD. While QbTest may increase the expediency of diagnosis and boost diagnostic confidence for clinicians, we need to be careful that it is neither masking other reasons for symptoms nor ruling them out when, for instance, the child being tested is inattentive but not overactive. It would also be interesting to see more comparison studies with more established measures such as the TOVA, GDS, IVA, or Connors CPT.

—Thomas Jordan, MD. Dr. Jordan has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

Would Treating Kids With ADHD Help Their Mothers?

**REVIEW OF:** Gokcen C et al, *J Child Adolesc Psychopharm*2018;28(5):350-353

Parenting a child with ADHD can be challenging. Parents often report feeling stressed, burned out, or depressed while caring for their children with ADHD. When ADHD medications lead to significant improvements in a child's behavior, can that alleviate symptoms in parents? A recently published study tried to examine that.

Investigators enrolled 40 children between the ages of 4 and 10 years with ADHD at an outpatient clinic in Turkey. Twenty-one children completed the 8-week study and were prescribed methylphenidate (15), atomoxetine (3), or, surprisingly, risperidone (3). Researchers assessed the kids with a parent rating scale based on the DSM-IV criteria for ADHD, oppositional defiant disorder (ODD), and conduct disorder (CD) (Turgay-DSM-IV-S). They simultaneously assessed the kids' mothers for depression and burnout symptoms using Beck's Depression Inventory and the Maslach Burnout Inventory.

At the follow-up visit, the researchers found that children showed improvement in their scores of inattention (14.8±6.9 vs 11±8), hyperactivity ( $18\pm6.5$  vs  $10.5\pm8$ ), ODD (11.6±6.4 vs 7.6±6.3), and CD  $(4.9\pm6.2 \text{ vs } 2\pm3.7) \text{ symptoms.}$ Moreover, their mothers also showed improvement in depression (14.5±7.7 vs 10.4±6.5) and burnout (18.3±10.6 vs 13±9.5). Interestingly, the improvement in mothers' burnout symptoms correlated with kids' ODD and CD symptoms (r = 0.5 and p = 0.02 for both), and improvement in mothers' depression symptoms correlated with CD symptoms in kids (r = 0.47, p =0.03). Changes in mothers' symptoms did not correlate with the changes in children's inattention and hyperactivity symptoms.

#### **CCPR'S TAKE**

This study suggests that improvement in ODD and CD symptoms in children with ADHD is associated with a decrease in burnout and depression symptoms in mothers. However, the findings of this study are difficult to generalize due to small sample size (40), high dropout rate (47.5%), lack of a control group, and an unclear separation between the pre-treatment and post-treatment scores. Furthermore, the authors did not disclose the rationale or dosage for the medications selected; they also did not disclose the psychiatric treatment status of the mothers. When evaluating a child for ADHD symptoms, comorbid disorders like ODD and CD must be assessed and addressed appropriately. Treatment of children with ADHD can lead to healthier interactions at home and school.

—Pavan Madan, MD. Dr. Madan has disclosed that he has no relevant financial or other interests in any commercial companies pertaining to this educational activity.

#### **SUICIDE**

Is Watching '13 Reasons Why' Bad for Teens?

REVIEW OF: Zimerman A et al, J Am Acad Child Adolesc Psychiatry 2018;57(8):610-613

13 Reasons Wby, a popular Netflix series, stirred controversy when it portrayed the bullying and suicide of a teenager. Although the program increased awareness of these issues, some clinicians argued that it glamorized suicide and would be detrimental to vulnerable viewers. Analysis of Google searches completed following the program's release demonstrated mixed results, with an increase in searches for terms such as suicidal ideation (SI; a 19% increase) and planning (26%) as well as for suicide prevention (23%) (Ayers JW et al, JAMA Intern Med 2017;177(10):1527-1529). To better understand the impact of the series, a recent study tried to directly examine the exposed young viewers.

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Investigators studied American and Brazilian Facebook users ages 12–19 who had "liked" Facebook pages related to 13 Reasons Why and watched the show's entire first season. The study assessed depression using the PHQ-2 scale, which scores recipients from 0 to 6; a score  $\geq 3$  is indicative of depression. Additionally, participants were asked if they had ever experienced SI or bullying and if the program had changed their thinking about bullying or suicide. To rule out bias, authors recruited a control group of 2,323 participants who liked Netflix's Facebook page, but not that of 13 Reasons Why.

Of survey respondents, 21,062 met criteria and completed the study. Demographically, most respondents were Brazilian (80%) and female (90%) with

a mean age of 16 years. Interestingly, of the 65% with a lifetime history of SI, most (60%) reported having less SI after watching the program, and only 16% reported having more SI. A majority (65%) screened positive for depression in the 2 weeks prior to the show, and those with severe depression had a higher rate of increased SI as compared to those not depressed but with a history of SI (21% vs 8%). Almost 80% of subjects had experienced bullying in the past, and nearly half of them felt better about it after watching the show. 41% of participants had bullied someone in the past, and over 90% of them reconsidered bullying or bullied less after the series. No significant difference was found regarding a reduction in SI or bullying compared to the control group.

#### **CCPR'S TAKE**

This extremely large study may open up an important conversation for some teens. While we need more nuance in our thinking about the impact of media on teen bullying and suicide, we must remember that in many countries, including the US, we are facing rising teen suicide rates. Some experts recommend limiting suicide attempt scenes, providing suicide hotline numbers as subtitles in such scenes, and showing the possibility of recovery following suicide attempts. Finally, vulnerable teens may require parental supervision and support after viewing such programs, which can be challenging in our age of easy, private media access across multiple devices.

—Pavan Madan, MD.

**Expert Interview** 

Continued from page 3

#### CCPR: What is it like coming back from these trips? They sound intense.

**Dr. Song:** Working in areas of armed conflict or humanitarian emergency can be emotionally draining, though not noticed in-country. I tend to feel it much more deeply after returning home; the emotional weight settles in within about a week. For many years, I was gone for a week every month to a post-conflict country. Leaving the US was fine, but the return was difficult. There was always this cultural dissonance returning home, so after a few years I developed some rituals to help.

#### **CCPR:** Tell us about those.

**Dr. Song:** Sure. I would tell my team a day early that I was leaving, then have a full day to myself. I would try to make sure I had enough power in my laptop to watch a Julia Roberts movie, because to me she's so American. I would watch the movie to get my emotional state back to the US. I also had Luna bars that I would eat to get me back into the American picture, and that's actually helped me quite a bit. What's harder is dealing with the emotional valence of the trips on return. I've had security issues abroad where my life was targeted, and at the time, it seemed reasonable—that human life is expendable in areas of armed conflict. But when I return home, I realize how close I was to actual harm, and it takes some recalibration. It was harder doing the humanitarian protection work because colleagues were not indigenous locals from the area, but were humanitarian workers and still in-country, too familiar with that lifestyle and without the uprooting back and forth between lives.

CCPR: How does a person learn about these opportunities? What organizations does one approach? Is it easy or hard? Dr. Song: Find mentors. My work domestically began during residency training; I did asylum evaluations with a mentor, who has now become like family after 10+ years. If you're interested in doing one-time evaluations, Physicians for Human Rights (https://phr.org) is always looking for psychiatrists to do psychological evaluations, and they provide trainings throughout the year. And honestly, many residents and early-career CAPs have more experience with global work than senior CAPs—there's a lot for both to offer, and pairing up could be a great avenue for bidirectional learning. If you want to work globally, I would highly recommend going with an organization. I only work in countries where invited. But after 15 years and multiple security issues, I've decided to mainly work with humanitarian organizations like the UN. That's a bit harder, since most of these organizations require at least 8, but sometimes 13 years of experience. But if you're willing to go abroad for a year or more, Doctors Without Borders (https://www.doctorswithoutborders.org) and Partners in Health (https://www.pih.org) have good programs set up.

#### CCPR: Thank you for your time, Dr. Song.

Editor's note: Volunteer work in underserved areas can add welcome variety and enrichment to your practice. The American Academy of Child and Adolescent Psychiatry has a new Resource Group for Children at the Border; contact me at jfeder@thecarlatreport.com if you are interested in getting involved. Also, for those wanting to help in the aftermath of the recent deadly wildfires in California, contact Caring Choices located in Chico, CA, which is organizing volunteer work (http://www.caring-choices.org). There are many organizations that take volunteer psychiatrists worldwide, including IsrAID, Partners in Health, and the International Committee for the Red Cross.

Psychiatric Aspects of Mild Traumatic Brain Injury in Children and Adolescents Continued from page 5

psychiatric symptoms? The CDC published new guidelines in fall 2018 emphasizing that patients tend to recover well, but that they need to rest and very gradually return to school (eg, 1 week post-injury), and only later return to sports (eg, 2 weeks post-injury). Patients must also have planned follow-up to track symptoms (see the "Return-to-Activity Recommendations for Pediatric mTBI Patients" box below).

The research on specific treatment for psychiatric symptoms following mild TBI is scant. Cognitive behavioral therapy (CBT) has been suggested to help manage behavioral activation and reframe symptoms (eg, "recovering," not "brain-injured" or "dumb"). The technique of using trauma narratives

has been suggested as well as aerobic activity and psycho-education. There are multidisciplinary models of care such as the Seattle Sports Concussion Research Collaborative Concussion that may be helpful. Their approach involves weekly multidisciplinary meetings that include a case manager, CBT therapist, pediatrician, and psychiatrist. The case manager helps the family coordinate care with school and other health professionals. The psychiatrist manages psychopharmacotherapy as needed. The CBT therapist uses modular techniques that may involve behavior activation and a paced return to activities, teaching coping and problem-solving skills, relaxation techniques, cognitive reframing, and sleep

hygiene (McCarty CA et al, *Pediatrics* 2016;138(4):e20160459).

Medication treatment after mTBI includes our usual pharmacopeia. Stimulants are effective for ADHD after mTBI, but exercise caution if the patient has had seizures, as there may be a higher seizure risk in this setting. Amitriptyline has been used for pain, and SSRIs have been used for mood and anxiety.

You will see a lot of patients in your practice who have a history of mild TBI. Manage expectations, advocate for gradual return to school and sports activities, build collaborative resources, and treat symptomatically.

Editor's note: Dr. Max is working on a long-term follow-up study of patients 24 years after their initial injuries, comparing psychiatric diagnoses of those who had severe TBI with those who had mild to moderate TBI and looking at the differences for those with and without psychiatric diagnoses prior to their original injury. The results may shed light on long-term outcomes for mild TBI and the possibility of a mediating effect of prior psychiatric disorders.

#### **Return-to-Activity Recommendations for Pediatric mTBI Patients**

- Counsel patients and their caregivers to observe restrictive activity during the first several days after the injury.
- Patients should gradually return to non-sports activities after no more than 2–3 days of rest.
- Provide child, family, medical, and school-based teams a customized return-toschool plan that gradually increases the intensity and duration of academic activities to avoid exacerbating symptoms<sup>1</sup>.
- Patients can resume full activity "when they return to premorbid performance" if symptom-free at rest and with increasing levels of physical exertion.

<sup>1</sup>Symptoms can include headache, light sensitivity, dizziness, low energy, attention problems, memory problems, foggy thinking, irritability, anxiety, sadness, withdrawal, and sleep disturbances
Source: Lumba-Brown A et al, *JAMA Pediatr* 2018;172(11):e182853

#### **Carlat Publishing News**

Updates on additional clinical resources we're working on

**The Carlat Psychiatry Report**—The February issue covers dark and light therapy. People with mood disorders have problems with their circadian rhythm, and regular exposure to darkness and light helps stabilize that rhythm. The issue also features articles on cognitive behavioral therapy for insomnia, Prazosin for alcohol use disorders, and the FDA's recent refusal to approve buprenorphine for treatment-resistant depression. Subscriptions to *The Carlat Psychiatry Report* include 12 CME credits per year and complete access to 13 years of searchable archives.

**The Carlat Addiction Treatment Report**—The March/April issue covers traumatic brain injury (TBI) and addiction. We hear a lot about TBI nowadays: among NFL players (as in the movie *Concussion*) and as a signature diagnosis among recent combat veterans. What doesn't get as much press coverage is the impact of TBI on those suffering from addiction. The issue also includes articles on flavored tobacco products and augmenting varenicline with bupropion. Subscriptions to *The Carlat Addiction Treatment Report* include 8 CME credits per year and complete access to 6 years of searchable archives.

**Current Book Titles**—*The Medication Fact Book for Psychiatric Practice* (Fourth Edition) worth 12 CME credits, *The Child Medication Fact Book for Psychiatric Practice* worth 8 CME credits, *Psychiatry Practice Boosters* (Second Edition) worth 8 CME credits, and *Addiction Treatment: A Carlat Guide* worth 8 CME credits. Depending on the title, these books are available with regular binding, spiral binding, and PDF or eBook access.

**Planned Book Titles**—Dr. Carlat, Dr. Aiken, and Dr. Feder are working on a new edition of Dr. Carlat's 2015 book *Drug Metabolism in Psychiatry: A Clinical Guide*. In addition, Dr. Carlat and Dr. Puzantian are starting work on the next edition of *The Medication Fact Book for Psychiatric Practice* for release in 2020. If you have any suggestions for these books, please get in touch with us.

For more information or to get in touch, call 866-348-9279, email info@thecarlatreport.com, or visit www.thecarlatreport.com.

#### **CME Post-Test**

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whether the training guide. I reduce complete the real offiline th	www.risecuriuscom.rice. Learning cojecutes are visited on page 1.
1. According to a 2018 study, what effect did antipsychotics causes? (LO #1)	s have on the risk of death in youth patients from cardiovascular or metabolic
chlorpromazine equivalent or lower) patier [] b. Risk of death was 4 times higher in high-d	lose patients and 2 times higher in low-dose patients ose patients; there was no change in risk of death for low-dose patients
2. Which of the following is the most frequently cited new-co	onset disorder associated with mild traumatic brain injury (mTBI) in youth? (LO #2)
[] a. Substance use [] b. Panic disorder	[] c. PTSD [] d. ADHD
3. Clinical overseas volunteer work typically requires additi	ional malpractice and liability coverage. (LO #3)
[] a. True [] b. False	
4. You are prescribing an antipsychotic for your 16-year-old lurasidone? (LO #1)	d patient with bipolar depression. What is the usual pediatric dose range for
[] a. 10–30 mg/d [] b. 30–60 mg/d	[] c. 40–80 mg/d [] d. 80–100 mg/d
5. Rapid-onset gender dysphoria (ROGD) is a non-standard (LO #4)	lized characterization of gender dysphoria that begins in children prior to puberty.
[] a. True [] b. False	
6. How does the risk of death from all causes in youth tak compare to that of older adults? (LO #1)	ing high-dose antipsychotics (50 mg chlorpromazine equivalent or higher)
[] a. Youth patients have a significantly lower in [] b. Youth patients have a slightly higher increase. [] c. Youth patients have a significantly higher in [] d. Youth patients and older adults have a continuous continu	ased risk of death compared to older adults ncreased risk of death compared to older adults
7. According to a 2018 study, improvements in the symptom improvements in the burnout symptoms in mothers. (Let	ms of oppositional defiant disorder and conduct disorder in kids correlated with O #4)
[] a. True [] b. False	
8. Prior psychiatric history does not impact the risk for you	uth TBI. (LO #2)
[] a. True [] b. False	

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> This Issue: Trauma March/April 2019

Next Issue:
Depression
Summer 2019

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#### **Note From the Editor-in-Chief**

This double issue was long in the making. We contacted a number of experts in the world of trauma, from Jeff Max on traumatic brain injury to Suzan Song on help-



ing refugees. We also spoke with Stuart Shanker about what we could learn from his experience in developing mass education on self-regulation in children. And as promised, we have responded to the recent reports of increased mortality in children taking "higher" doses of antipsychotic medications.

Our next issue, on depression, will also be a double issue, spanning the summer months of May–August. As always, we invite your feedback! People are really enjoying our new *Child Medication Fact Book for Psychiatric Practice*—if you haven't seen it, do take a look online.

Regards,
Josh Feder, MD
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