THE CARLAT REPORT PSYCHIATRY

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Editor-in-Chief

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IN THIS ISSUE

Focus of the Month:
Posttraumatic Stress Disorder (PTSD)

Learning Objectives
After reading these articles, you should be able to:

1. Discuss some of the medications currently used to treat patients with PTSD.
2. Describe the challenges in diagnosing and treating complex PTSD.
3. Summarize some of the current findings in the literature regarding psychiatric treatment.

Update on Medications for PTSD

Robin Berlin, MD. Assistant clinical professor of psychiatry, George Washington University School of Medicine, and director of psychiatry, La Clinica del Pueblo, Washington, DC.
Daniel Carlat, MD. Editor-in-chief, The Carlat Psychiatry Report.

Dr. Berlin and Dr. Carlat have disclosed that they have no relevant relationships or financial interests in any commercial company pertaining to this educational activity.

Every five years or so, we do an update on PTSD treatments; the most recent was our August 2011 issue of *TCPR,* in which we declared that psychotherapy was the gold standard for treatment. Recently, the US Veterans Health Administration (VA)

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In Summary

- Medication treatment can be helpful for PTSD patients in the absence of, or in conjunction with, specialized trauma-focused therapy.
- Although sertraline and paroxetine are the only FDA-approved drugs for PTSD, VA practice guidelines also recommend others such as fluoxetine and venlafaxine.
- Newer medication treatments for PTSD, such as steroids, MDMA, and ketamine, have shown promise in initial studies.

Q&A With the Expert

Assessing Complex PTSD
Arielle Schwartz, PhD

Licensed clinical psychologist in private practice in Boulder, CO. Author of The Complex PTSD Workbook: A Mind-Body Approach to Regaining Emotional Control and Becoming Whole.

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

TCPR: We've been hearing more the last few years about the concept of complex PTSD. I know that there are similarities with conventional PTSD—which is covered in the DSM-5—but can you explain to our readers how complex PTSD is different from conventional PTSD?

Dr. Schwartz: The first thing that I would say is that complex PTSD can sometimes be harder to spot and diagnose, because when we're looking for symptoms of conventional PTSD, we're often looking for that first criterion: Has there been a single event that your patient would consider traumatic? In general, was the patient exposed to any major negative event? But with complex PTSD, it's about a period of exposure to many sequential traumatic events, or it's a chronic exposure to high stress, where there is either no real escape from the stress or a perception that there is no way to leave the situation. One thing that can make complex PTSD more difficult to diagnose is that there may not be a single traumatic event. In addition, it can be challenging to differentiate a diagnosis from other masking or coexisting conditions (Knipe J. *EMDR Toolbox: Theory and Treatment of Complex PTSD and Dissociation.* New York, NY: Springer Publishing; 2015).

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Update on Medications for PTSD

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and the Department of Defense made this their official position. In their just-published 2017 treatment guidelines, they recommend that treatment begin with "individual trauma focused psychotherapy" before using medications (https://www.healthquality.va.gov/guidelines/MH/ptsd). They included the following types of therapy in this effective category: prolonged exposure, cognitive processing therapy, and eye movement desensitization and reprocessing (EMDR). Although there have been few head-to-head comparisons of therapy vs medications, the VA concluded that gains from therapy are generally more long-lasting than those from medications, and that when given the choice, patients prefer therapy over medication.

Nonetheless, specialized trauma focused therapy is often not available, and in those cases medications are appropriate.

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Even when therapy is available, medications can often enable a patient to more easily face the tough work of exposure or other psychotherapies. Symptoms that are most easily addressed by medications include hyperarousal and nightmares.

Medications for PTSD

SSRIs. Sertraline (Zoloft) and paroxetine (Paxil) are still the only drugs that are FDA approved for the treatment of PTSD, although fluoxetine is also effective and is recommended as first-line treatment by the VA practice guidelines. Dose these SSRIs at the same levels you would use for depression.

Other antidepressants. Of all the many other antidepressants, venlafaxine seems to be leading the pack when it comes to evidence for PTSD efficacy. It is the only non-SSRI recommended as a first-line treatment by the VA. While just about all SSRIs, SNRIs, tricyclics, and miscellaneous antidepressants (such as mirtazapine and nefazodone) have some positive evidence, that evidence is not strong, and the VA lists all of these under the category "insufficient evidence to recommend for or against." This doesn't prevent you from making reasonable clinical decisions based on your experience or on evidence from smaller trials. For example, since disrupted sleep is a frequent complaint of patients with PTSD and it often does not completely improve with psychotherapy or SSRIs, mirtazapine or a sedating tricyclic such as doxepin (Sinequan) can be helpful, alone or in combination with an SSRI (van Liempt S et al, *Internat Clin Psychopharmacol* 2006;21(4):193–202).

What about a non-sedating antidepressant to address the dysphoric mood that is often seen in PTSD patients? It may not be of much use. In a placebo-controlled trial, bupropion (Wellbutrin) had no significant effect even as an adjunct for PTSD (Becker ME et al, *J Clin Psychopharm* 2007;27(2):193–197).

Atypicals. The atypical antipsychotics that have been studied the most as monotherapy in PTSD are risperidone and olanzapine, and a 2014 meta-analysis of 8 randomized controlled trials found that these medications were superior to placebo for most PTSD symptoms. Surprisingly, given the well-known side effects of these agents, the meta-analysis found that patients judged the atypicals just as acceptable as placebo. The doses used in these studies were lower than typical doses used for schizophrenia, so this dosing strategy may limit side effects. While intriguing, it's not very common for us to use atypicals as monotherapy for PTSD. Adjunctive use, generally adding them to an antidepressant, is the more usual scenario. For this use, the studies are somewhat mixed, although the weight of the evidence is positive.

A review of such studies from 2009 found positive data in some studies for risperidone (Risperdal), quetiapine (Seroquel), and olanzapine (Zyprexa) (Berger W et al, *Prog Neuropsychopharmacol Biol Psychiatry* 2009;33(2):169–180). They conclude that it is "an effective add-on therapy when patients did not fully benefit from previous treatment with SSRIs." However, since this review was published, an influential randomized controlled trial found that risperidone augmentation did not outperform placebo on the global measure of PTSD symptoms, although it did benefit patients on the Clinician Administered PTSD Scale (CAPS) subscales for reexperiencing and hyperarousal; there was no benefit for avoidance/numbing (Krystal J et al, *JAMA* 2011;306(5):493–502).

Interestingly, the latest VA practice guidelines came out very strongly against use of atypicals, on the basis of the relatively weak efficacy evidence and the high potential for dangerous side effects such as metabolic syndrome. We find this guidance somewhat harsh, and perhaps an example of erring on the side of caution. The evidence argues for the modest efficacy of atypicals used either as monotherapy or as adjuncts to antidepressants—especially for symptoms such as flashbacks, anxiety, and insomnia. But try to stick with low dosages and, as always with atypicals, monitor for weight gain, blood sugar, and lipids.

Mood stabilizers. Because hyperarousal can include mood lability, you might think of using a mood stabilizer for these patients. Although results are mixed, in general, mood stabilizers have surprisingly often been shown to be *in*effective in PTSD, especially as monotherapy. Among others, a double-blind randomized trial of divalproex (Depakote) as

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monotherapy in combat veterans showed no difference from placebo (Davis L et al, *J Clin Psychopharm* 2008;28(1):84–88).

Benzodiazepines. Benzodiazepines are probably the most commonly prescribed unproven drugs for PTSD. Although there is surprisingly little direct research on this topic, one small prospective study found no improvement on multiple PTSD scales compared to the placebo group after 1 or 6 months of treatment (Gelpin E et al, *J Clin Psychiatry* 1996;57(9):390–394). In addition to the poor evidence base, benzos seem tailor-made for abuse in this population, since there is significant comorbidity of substance use disorders in people with PTSD—up to 40% and even perhaps as high as 75% for combat veterans with PTSD (Jacobsen LK et al, *Am J Psychiatry* 2001;158(8):1184–1190).

Another potential disadvantage of benzos is that they might contribute to the emotional numbing of PTSD and prevent integration of the traumatic event. While there is not much actual clinical evidence of this, benzodiazepines given after a stressor in animal models are found to inhibit normal HPA-axis response to stress and even increase vulnerability to future stressors (Matar MA et al, *European Neuropsychopharm* 2009;19(4):283–295).

However, with these caveats, we often still find benzos useful when prescribed at low doses for insomnia. Just be careful of dosage creep; many PTSD patients seem to end up on a TID dosing of clonazepam, which can be very hard to taper.

Prazosin: Did its bubble burst?

TCPR has traditionally been quite bullish on prazosin (Minipress), the alpha-1 antagonist, for PTSD-associated nightmares—and for good reason. Four studies have been published, and all have shown prazosin's efficacy. However, the latest VA guidelines have a tepid statement that there's not enough evidence to definitively rule for or against prazosin. Why? Because there is a very large well-designed yet unpublished study in which 326 veterans were randomly assigned to prazosin vs placebo, and prazosin did not beat placebo on any PTSD symptom measures, including nightmares. The size of this study dwarfed all four published studies combined—326 subjects vs 167 subjects. But the catch is that these results have not yet been published, and are available only online at clinicaltrials.gov (https://clinicaltrials.gov/ct2/show/results/NCT00532493?sect=X70156#outcome1). From our perspective, we don't really trust study results until they have survived the rigorous peer review process for journal publication, so at this point we are standing by our drug. Dose it initially at 1 mg at bedtime and increase gradually, watching for orthostasis.

While on the subject of nightmares and insomnia, a thorough (if dated) meta-analysis of drug treatment for sleep disruption in PTSD found an astounding number of medications that have been effective in studies ranging from case reports to clinical trials, including buspirone, gabapentin (Neurontin), topiramate (Topamax), imipramine (Tofranil), phenelzine (Nardil), mirtazapine (Remeron), prazosin, clonidine, and multiple atypical antipsychotics (van Liempt S et al, *op. cit.*).

In our experience, topiramate (25 mg–100 mg at bedtime), clonidine (0.1 mg–0.2 mg at bedtime), and quetiapine (as low as 25 mg at bedtime) are particularly helpful for nightmares. Warn patients of orthostasis when getting up in the morning, especially with clonidine or quetiapine.

Other potentially effective medications

Much of the pharmacologic treatment of PTSD involves addressing particular symptoms. For hypervigilance and activation symptoms, try a beta blocker such as propranolol (Inderal) or an alpha-2-agonist such as clonidine (Catapres)—these can be quite helpful and do not carry the stigma that patients new to psychiatric treatment can associate with classic psychiatric meds. A good starting dose of propranolol is 10 mg, taken 3 or 4 times daily. While you do not need to monitor heart rate or blood pressure in the typical patient, check for interaction with other cardiac meds.

Drugs in the pipeline

D-cycloserine (Seromycin). This drug, which is an antibiotic developed for the treatment of tuberculosis, showed some promise in some earlier trials. Since it demonstrated some efficacy when used for treatment of social phobia and acrophobia, the theory was that the drug could enhance the effectiveness of exposure therapy for PTSD. Unfortunately, definitive double-blind studies have now been done, and the results are negative for d-cycloserine. For example, in one study 156 Iraq and Afghanistan veterans with PTSD were randomly assigned to virtual reality exposure therapy with either D-cycloserine or placebo. There was no advantage of D-cycloserine over placebo (Rothbaum BO et al, *Am J Psychiatry* 2014;171(6):640–648).

Beta blockers after trauma. After the World Trade Center bombing, there was a lot of interest in immediate pharmacologic interventions that could be done in the emergency room after a traumatic exposure, with the idea that such interventions could lessen development of acute stress and then PTSD later. With the aim of decreasing initial activation, propranolol was one of the more common interventions, with the idea that it might block the consolidation of stress-related memories after a trauma. After some promising early results from non-randomized trials, however, placebo-controlled trials have not endorsed propranolol's value.

Steroids after trauma. A couple of studies have shown that giving patients hydrocortisone immediately after a trauma may reduce the risk of PTSD symptoms. One trial involved a single intravenous high dose of hydrocortisone within 6 hours of the event, while the other study used a 10-day course of low-dose oral hydrocortisone (20 mg twice daily). Both studies were double-blind randomized trials, and cortisone was more effective than placebo in both cases (see Howlett JR and Stein MB, *Neuropsychopharmacology* 2016;41(1):357–369 for a review of these and other strategies used to prevent PTSD). The theory behind using cortisol is based on data showing that people who produce low levels of cortisol after a trauma are more likely to suffer PTSD; thus, adding exogenous cortisol might prevent this.

Interestingly, steroids have also been implemented to enhance extinction learning during exposure therapy, similar to D-cycloserine, with positive results. Veterans with PTSD underwent a single session of exposure therapy after being given either glucocorticoid or placebo, and a week later the subjects who received the glucocorticoid had a reduction in symptoms. This was transient, however, and the effect was gone

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Expert Interview

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TCPR: Can you give us some examples of the kinds of events that would cause complex PTSD?

Dr. Schwartz: Sure. I'd start by saying that sometimes the void or lack of something can lead to complex PTSD, and that there isn't specifically something that has caused it. For example, PTSD could have resulted after a child grew up in a home where basic needs were provided for, but where there was a lack of attunement, attachment, and understanding of this child. That can give the child a deep sense that "I don't belong or feel loved," that "I shouldn't be here and there's something wrong with me." This can have a crossover to what we think of as attachment disorder or developmental trauma, and in those cases what we're looking at really is neglect. Chronic neglect can occur in different scenarios, such as growing up with a caregiver who had a significant mental illness, such as severe depression or schizophrenia, or growing up with a parent who was repeatedly incarcerated.

TCPR: In mentioning attachment disorder and developmental trauma, is this the part of the patient interview where we might ask if the patient was abused physically, verbally, or sexually as a child? Are those the kinds of questions that will elicit a history consistent with complex PTSD?

Dr. Schwartz: Absolutely. I think those questions get at it. In general, if we look at tools such as the ACE (Adverse Childhood Experience) questionnaire, then it broadens out. It's also not just about direct child abuse; we also want to find out if patients were witness to domestic violence in their home over a period. Defining neglect can be difficult. And keep in mind that complex PTSD is not always the result of a childhood trauma. It can also result from living in an ongoing abusive relationship as an adult, where there's chronic exposure to stressful situations (Felitti VJ et al, *Am J Prev Med* 1998;14(4):245–258).

"I've had many clients who have been diagnosed, sometimes accurately, with comorbid disorders such as bipolar disorder, borderline personality disorder, and ADHD. Until complex PTSD was really understood, sometimes those other disorders were the closest diagnoses that could be found."

Arielle Schwartz, PhD

TCPR: You mention the ACE questionnaire. For our readers who aren't familiar with that, can you tell us more?

Dr. Schwartz: It was developed to understand the impact of adverse childhood events, such as abuse or exposure to domestic violence or neglect. The tool has been around since the mid-1980s, and it's a 10-question quiz. Through a point scoring system, you can then connect those experiences to the potential for developing mental health and other problems in adulthood. For example, one question is, "Did a parent or other adult in the household often push, grab, slap, or throw something at you?" You can get more information on the ACE questionnaire from the American Academy of Pediatrics (http://bit.ly/2yRxsQe).

TCPR: So, let's say that we're talking to a patient, and we get a sense that trauma went on for a period. How do we determine whether the diagnosis of complex PTSD is appropriate?

Dr. Schwartz: In many ways, the symptoms are like traditional PTSD: things such as hyperarousal, flashbacks, difficulty sleeping, re-experiencing in some way or another. We will also look for avoidance symptoms in which clients isolate or avoid certain situations that are reminiscent of their trauma. Sometimes, the symptoms are present, but patients don't know why or what it is that they are avoiding, especially if the trauma occurred when they were very young. I think that's why it takes a lot of careful detective work to come to an accurate diagnosis. I've had many clients over the years who have been diagnosed, sometimes accurately, with comorbid disorders such as bipolar disorder, borderline personality disorder, and ADHD. Until complex PTSD was really understood, sometimes those other disorders were the closest diagnoses that could be found.

TCPR: I see, but I'm still not totally clear on how to make the diagnosis. Can you give us a clinical case that might illustrate further?

Dr. Schwartz: Sure. I'll share a little bit about a woman who was referred by her psychiatrist. She had been treated for many years for bipolar disorder, but had never really done a deep dive in psychotherapy. When she came in and we started to go into more of a thorough developmental history, there was nothing glaring on the first review of her childhood. There was a lot of "my childhood was relatively normal; things were fine." But as we continued to talk about things, we learned that her dad was out of the home a lot because of work. When he did come home, he would drink a lot, and he would rage. I also learned that there were five children in the home, and that her mom was never really prepared to handle the stress of taking care of that many kids. The patient was also the second youngest in her family, and there was some middle child syndrome going on too.

TCPR: Interesting. So, what else did you learn?

Dr. Schwartz: All of this was stressful for her, and she kept all of that to herself for many years. Eventually, it had developed into an eating disorder in her teenage years, and had rolled over into what she described as a tremendous amount of self-hatred. By her early 20s, she was diagnosed as bipolar II due to her symptoms of anxiety, rage, "acting out" sexually, and over-spending. As we started to unpack more about her childhood, we learned that there were many deep-seeded feelings of anger, resentment, and hurt that she had kind of swallowed or pushed down to make it through a pretty stressful upbringing.

TCPR: And how are you treating her?

Dr. Schwartz: We have been tackling the psychological side of all of this, and I'm working closely with her psychiatrist. She has actually been able to taper down on her medication to where she is minimally medicated at this point. Early on in treatment, with the concern that her medications weren't working, she would call her psychiatrist when

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Expert Interview

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there was rage or anxiety. Now she recognizes that her underlying emotions often get funneled into rage. She knows to call me when she feels that rage emerging.

TCPR: What are some of the specific therapies you'd recommend for treatment of complex PTSD?

Dr. Schwartz: Generally, so that you know how to work within the context of a relational framework, I recommend that you develop a pretty broad clinical toolbox. What we know about psychotherapy is that the strongest common factor of therapeutic efficacy is a positive therapeutic rapport (Shapiro F, *Perm J* 2014;18(1):71–77). In my opinion, and no matter your therapeutic approach, this involves awareness of how to work with dynamics of transference and countertransference. Personally, I draw upon EMDR (eye movement desensitization and reprocessing) therapies. But I also use cognitive behavioral therapy and dialectical behavioral therapy, in conjunction with some mindfulness work. I'll use elements of cognitive behavioral therapy to help patients recognize thought distortions, address unhelpful patterns, and develop more helpful thought patterns. But I won't typically do traditional exposure. When doing exposures, I will use an EMDR approach, with its desensitization element. Talk therapy alone typically is not going to get to the root of the physiological dysregulation that goes along with complex PTSD.

TCPR: So, how would you define EMDR and how do you use it?

Dr. Schwartz: I'll describe several working mechanisms. One is the adaptive information processing (AIP) component, which is basically the inherent drive toward health that exists in every individual. The aim of EMDR is to help the individual connect to that drive, which is done through an eight-phase model. Often, most people associate EMDR specifically with Phase 4, which is the desensitization protocol, but all successful trauma treatment models are phased models, and the initial phases are always going to be about preparation. EMDR places a tremendous focus on the importance of preparing someone for desensitization and exposure (van der Kolk B. *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma.* New York, NY: Viking Press; 2015). When patients first experienced trauma, they didn't have the resources to deal with it. If they don't have the resources now, they're going get overwhelmed again. So, we focus on the front end, helping clients feel that they have choice and control over what they're thinking about.

TCPR: And what is the result?

Dr. Schwartz: That then develops into a key working mechanism of EMDR therapy, which we refer to as the dual awareness effect. Dual awareness means that I can be present and oriented with my senses in the here and now, and can recognize that I'm safe while I turn my attention to there and then and the traumatic incidents that happened to me. What often happens, especially with complex PTSD, is that there can be a flooding of physiological arousal. If someone has a tendency toward dissociation, the person might get overwhelmed very quickly, and we don't want to lose dual awareness. So, as soon as that arousal state feels like it's too much, we then return awareness to here and now. You say to the patient: "You're sitting in this room with me. Look around the room. Can you recognize that you're safe now?" If the patient replies, "Yes, I can," we can now bring our attention back to the traumatic incident, and we'll work a little bit at a time. Sometimes this is referred to as pendulation, or a titration model.

TCPR: And where do the eye movements, or the other kind of movements, come into the model?

Dr. Schwartz: The eye movements and other forms of bilateral stimulation, such as bilateral sounds or bilateral music, facilitate the dual awareness state. EMDR therapy also incorporates bilateral stimulation in the form of eye movements. Therapists move their fingers from side to side in front of the client's face, and the client tracks this movement with the eyes. Bilateral stimulation can be experienced with tones in the ears or pulsers held in the hands.

TCPR: Any other thoughts on why the complex PTSD concept isn't fully accepted yet? For example, it's not in the DSM-5, right?

Dr. Schwartz: Correct, but I believe that it should be. I think including complex PTSD in the DSM-5 would reduce a lot of misdiagnoses. More and more people are getting this diagnosis from clinicians, who are familiar with it from psychiatrists, from their doctors, who have been educated to look for complex PTSD. But in terms of providing a diagnosis, we still must resort to the traditional PTSD diagnosis, because it's the closest we have. A DSM-5 committee considered adding both complex PTSD and developmental trauma to the manual, but decided against it because these seemed too similar to other disorders.

TCPR: Thank you for your time, Dr. Schwartz.

Variations of PTSD

Diagnosis	Definition (DSM-5)
PTSD	Traumatic experience plus symptoms pertaining to: 1. Intrusive memories 2. Avoidance of reminders 3. Negative emotional reactions
Complex PTSD (C-PTSD)	Not defined in DSM-5. Refers to chronic traumatic experiences over time, which may lead to all the symptoms of conventional PTSD, as well as other symptoms.
Acute stress disorder (ASD)	Same as DSM-5 PTSD, but is diagnosed only in the first month following exposure to trauma. If symptoms persist past 30 days, it's diagnosed as PTSD.

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Research Updates IN PSYCHIATRY

DEPRESSION

Transcranial Direct-Current Stimulation: Not Ready for Prime Time Yet

REVIEW OF: Brunoni AR et al, *N Engl J Med* 2018;376(26):2523–2533

Transcranial magnetic stimulation (TMS) was approved by the FDA in 2009 for the treatment of major depression, but TMS is costly and has so far produced only mixed results. A novel method, transcranial direct-current stimulation (tDCS), applies a weak electrical current to the brain by placing electrodes on the scalp. tDCS would be less expensive than TMS, and previous research has shown that it can enhance the effects of antidepressant pharmacotherapy (see *TCPR,* July 2015 for extensive coverage of various electrical devices in psychiatry).

Researchers in a new study sought to determine whether tDCS would be an effective treatment for depression all by itself. In this study, 245 subjects with depression were randomized to tDCS (n = 94), escitalopram (n = 91; dosage was 10 mg for 3 weeks and 20 mg thereafter), or placebo (n = 60). There were no baseline differences between these groups regarding their age, gender, depression severity, or degree of treatment resistance. tDCS treatment consisted of 22 30-minute sessions, and all treatments were delivered over the course of 10 weeks. tDCS was generally well tolerated (though 2 patients developed a new-onset mania compared to none in the other two cohorts), and patients were unable to guess whether they were receiving tDCS or sham treatment—suggesting that patients were truly blind to the treatment they were receiving.

The primary outcome of interest was decrease in Hamilton Depression Rating Scale (HAMD) scores. Patients receiving escitalopram (-11.3 points) and tDCS (-9.0 points) both fared better than placebo (-5.8 points) in this regard, but tDCS was less effective than escitalopram (p = 0.02). Response rates to escitalopram, tDCS, and placebo were 47%, 41%, and 22%, respectively, with both active treatments superior to placebo.

TCPR'S TAKE

tDCS appears to work for depression, but unless it can be tweaked to work as well as, if not better than, antidepressant medications, it is hard to envision much of a niche for it within our antidepressant armamentarium.

—Michael Posternak, MD.

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

ALTERNATIVE MEDICINE

Can Mindfulness-Based Stress Reduction Affect Symptom Outcomes in Older Adults?

REVIEW OF: Wetherell JL et al, *J Clin Psychiatry;*78(7):e734–e743

Mindfulness-based stress reduction (MBSR) is a formalized combination of mindfulness meditation, body awareness, and yoga. The technique has been shown to help with symptoms of depression and anxiety, and some preliminary small studies have hinted that it might improve both memory and anxiety/depressive symptoms in older patients. Here, researchers conducted a larger study to better see if MBSR might be helpful for older patients.

This study recruited 103 adults age 65 or older, all with anxiety or depressive disorders and with subjective age-related neurocognitive difficulties. Subjects with any dementia or serious medical illness were excluded, as were those with a lifetime history of bipolar disorder or psychosis, or with a history of alcohol or substance abuse within the last 6 months. The study participants were assigned randomly to an intervention: either 8 weeks of MBSR (n = 47) or 8 weeks of a similar manualized health education control group (n = 56), with follow-ups at 3 and 6 months. In both study arms, patients received treatment in small-group formats (5–8 people per class), and the outcome ratings were single-blinded, with the study raters unaware of which participants had which interventions.

At the end of the study period, MBSR participants improved significantly more on the measure of memory than controls, though the two groups did not differ in their subjective perception of cognitive performance. In addition, the MBSR group improved more on measures of worry and depression, and 47% of MBSR participants were rated on the Clinical Global Impressions Scale as much improved or very much improved versus just 27% of health education participants. These improvements continued at 3 and 6 months post-intervention.

TCPR'S TAKE

Mood disorders, anxiety disorders, and mild cognitive impairment are common in older adults, and the inclusion criteria for this study realistically reflect many of the older patients we might see in our offices. The study results support the use of MBSR for the treatment of mood and anxiety symptoms in older adults, and perhaps for assistance with age-related memory issues as well. The memory improvement noted after MBSR is an interesting finding. One wonders, however, if this was just a consequence of the improvement in the patients' comorbid anxious or depressive symptoms.

In any case, whenever available, we should recommend MBSR groups to our older patients with anxious or depressive symptoms and with subjective cognitive decline in memory. Also, as mindfulness-based psychotherapy techniques are relatively easy to learn, they represent promising additions to our psychotherapy toolkits.

—Adam Strassberg, MD.

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

CME Post-Test

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For those seeking ABPN Self-Assessment (MOC) credit, a pre- and post-test must be taken online at http://thecarlatcmeinstitute.com/self-assessment/

Below are the questions for this month's CME/CE post-test. This page is intended as a study guide. Please complete the test online at www.TheCarlatReport.com. Note: Learning Objectives are listed on page 1.

1. What is the estimated comorbidity of substance use disorders in people with PTSD? (LO #1)
   - [ ] a. Up to 20%; perhaps as high as 40% for combat veterans
   - [ ] b. Up to 30%; perhaps as high as 60% for combat veterans
   - [ ] c. Up to 40%; perhaps as high as 75% for combat veterans
   - [ ] d. Up to 50%; perhaps as high as 90% for combat veterans

2. According to Dr. Schwartz, complex PTSD can differ from conventional PTSD in that there may be an absence of a single traumatic event. (LO #2)
   - [ ] a. True
   - [ ] b. False

3. Regarding the treatment of nightmares associated with PTSD, VA treatment guidelines reported that there is not enough evidence to endorse which of the following drugs? (LO #1)
   - [ ] a. D-cycloserine
   - [ ] b. Quetiapine
   - [ ] c. Prazosin
   - [ ] d. Trazodone

4. In addition to establishing a positive therapeutic rapport with your patient, Dr. Schwartz recommends the following protocol for treating complex PTSD: (LO #2)
   - [ ] a. Incorporate traditional exposure therapy and eye movement desensitization and reprocessing (EMDR) therapy concurrently
   - [ ] b. Initiate EMDR therapy for at least 5 sessions, then use traditional exposure therapy
   - [ ] c. Incorporate EMDR therapy as well other supporting therapies such cognitive behavioral therapy and dialectical behavioral therapy
   - [ ] d. Incorporate traditional exposure therapy and talk therapy concurrently

5. In a recent study on transcranial direct-current stimulation (tDCS) and depression, tDCS was more effective than escitalopram. (LO #3)
   - [ ] a. True
   - [ ] b. False

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by the 1-month assessment (Suris A et al, *Ann Clin Psychiatry* 2010;22(4):274–279).

MDMA. MDMA (street name "ecstasy") is a Schedule I drug, often used as a "club drug," that induces relaxation and a sense of well-being. This could help patients tolerate and benefit from exposure therapy. For example, in an open-label trial, 10 of 12 subjects with PTSD who received MDMA and exposure therapy had such a big drop in their CAPS scores that they no longer met criteria for PTSD, compared with 2 of 8 in the placebo group (Mithoefer MC et al, *J Psychopharmacol* 2011;25(4):439–452). The effects persisted for the 2-month duration of the study. In Phase 2 of that study, the clinical response rate was 100% in 7 subjects from the placebo arm who wanted to try active treatment—6 people who did not respond, and 1 who relapsed after an initial placebo response (Mithoefer MC et al, *J Psychopharmacol* 2013:27(1):28–39). Recently, the FDA reviewed these data and was so impressed it gave MDMA a "breakthrough designation" for PTSD treatment, paving the way for rapid review of larger clinical trials. As a substantial caveat, MDMA is not a fully benign drug (see Sarkar S & Schmued L, *Curr Pharm Biotechnol* 2010;11(5):460–499 for a review of its potential neurotoxicity). Of note, the study involved significant training of the therapists who worked with the patients while they were under the influence of MDMA.

Ketamine. Since we're on the subject of "club drugs gone good," IV ketamine ("special K") has promise for PTSD. In one trial, 41 patients were randomly assigned to a single IV infusion of ketamine at 0.5 mg/kg (the typical antidepressant dose) vs an infusion of the benzodiazepine midazolam. 24 hours later, patients assigned to ketamine had significantly more improvement in PTSD symptoms than those who were given midazolam (Feder A et al, *JAMA* 2014;71(6):681–688). As with all things ketamine-related, we await more studies to learn how long the positive effects will last.

TCPR VERDICT: Medications for PTSD? The research base remains pretty thin, but there are plenty of options to try. Psychotherapy is still the bedrock of treatment for most PTSD patients.

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This Month's Focus:
PTSD

Next month in *The Carlat Psychiatry Report:*
Bipolar Disorder

Note From the Editor-in-Chief

My goal in publishing *TCPR* is to help you think differently about your clinical practice, hopefully to enhance your effectiveness as a healer. After editing this month's issue on posttraumatic stress disorder (PTSD), I think I've achieved that goal in my own practice.

I've often noticed that PTSD seems to present in two forms: clear and fuzzy. Patients with "clear" PTSD have had a defined traumatic experience and are suffering from it, with flashbacks, nightmares, and other typical DSM-5 symptoms. But patients with a "fuzzy" profile present with long-standing depression and anxiety, and then during the social history relate a horrific tale of childhood abuse—not a single event, but mistreatment or neglect spanning many years. After having interviewed this month's expert, Dr. Arielle Schwartz, I'm understanding that many of these patients have "complex PTSD." They are deeply *afflicted* by their past, and bring a sense of personal failure and hopelessness into relationships, jobs, and other life situations. This insight helps me to better understand their symptoms, and this empathic connection is good for treatment. As always, I'd love to hear your thoughts about this month's issue, so feel free to email me at dcarlat@thecarlatreport.com.