## The Complexity of Complex PTSD

rauma-focused therapies, and cognitive-behavioral therapy (CBT) in particular, have become the treatment of choice for posttraumatic stress disorder (PTSD) over the past two decades (1). A cautionary note about the general applicability of CBT has been that it may not adequately address the nature and breadth of psychological difficulties experienced by patients with more emotionally complex PTSD secondary to childhood adversity. In the article by Cloitre et al. in this issue of the *Journal* (2), this question is addressed with a controlled trial that compares the relative efficacies of standard CBT with a version of CBT that is augmented by skills training that prepares the patient for the emotional reactions associated with CBT. This trial is predicated on the premise that childhood abuse can lead to PTSD that is complicated by impairments in regulating emotion, which can compromise the ability to cope with the distress elicited by traumafocused CBT. By training patients in emotion regulation, this therapy aims to compensate for the purported deficits in patients with more complex PTSD. The importance of this study lies in its finding that augmented CBT led to greater treatment gains and fewer dropouts from therapy in these patients than standard CBT. Although previous trials have demonstrated that CBT can effectively treat PTSD following childhood abuse or

prolonged violence (3), this study represents the first demonstration that preparing these patients with specific training in emotion regulation skills has an additive gain over standard CBT.

One implication of this finding is that clinicians could identify patients with complex PTSD and provide them with this augmented CBT. In this context, some have proposed that complex PTSD could be defined as a subtype of PTSD to facilitate targeted treatment planning. Complex PTSD is not formally recognized by DSM-IV, or the proposed DSM-5, as a distinct construct. Although DSM-IV lists emotion dysregulation as an

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associated feature of PTSD, the construct is generally conceptualized as a form of PTSD in which the patient has especially marked impairment in regulating their emotions, which results in maladaptive responses to extreme emotions, including self-harm, risky sexual or spending behavior, and chaotic interpersonal relationships (4). It shares certain properties with borderline personality disorder, but the latter is distinguished by its emphasis on severe behavioral and emotional dysregulation and fear of abandonment rather than PTSD symptoms. Whereas some studies of borderline personality report increased reactivity to stimuli, as would be expected in patients with PTSD (5), others have found that patients with borderline personality disorder are characterized by elevated tonic levels of emotional intensity but not increased reactivity (6). Complex PTSD is also conceptually similar to disorder of extreme stress not otherwise specified, which in addition to PTSD symptoms is often described as having alterations in self-identity, self-directed harm, and chaotic relationships (7).

Understanding the core mechanisms underpinning complex PTSD's emotion dysregulation may advance therapies, such as the one demonstrated by Cloitre et al. Some commentators have suggested that deficits in parasympathetic function may be pivotal to emotion regulation. For example, there is evidence that vagal tone is associated with emotion regulatory responses (8), which supports the proposal that vagal tone is a biological indicator of emotional dysregulation (6). Identifying the specific mechanisms

contributing to altered parasympathetic dysfunction may enhance how we assist patients with complex PTSD to regulate emotional states.

Cloitre et al. admitted patients to their study on the basis of PTSD secondary to child-hood abuse. The definition of complex PTSD should instead be based on an operational definition of measurable indices of emotion dysregulation rather than a history of childhood abuse. Survivors of childhood abuse can present with PTSD and not have marked difficulties with emotion regulation (9). Conversely, PTSD patients who suffer trauma as an adult can present with marked emotion dysregulation deficits. Refugees, torture victims, or survivors of prolonged interpersonal violence may have difficulties managing emotional distress. Any definition of complex PTSD should center on current symptomatology rather than on historical precedent.

One departure Cloitre et al. made from typical adaptations of CBT was to use imaginal exposure only, omitting in vivo exposure. A stronger effect might have been obtained by integrating exposure to feared situations rather than only recalling traumatic memories. Evidence on this issue is mixed, with one poorly controlled study indicating that in vivo exposure may reduce phobic avoidance more than imaginal exposure (10), but another better controlled study indicated that comparable treatment gains are achieved when either form of exposure is used or both are used in combination (11). It remains to be seen if the addition of structured in vivo exposure would provide stronger treatment responses in combination with the emotion regulation training.

One of the outstanding findings from the Cloitre et al. study was that augmented CBT resulted in *less* worsening of symptoms at 6-months follow-up relative to standard CBT. Considering the nature of emotion regulation problems and difficulties in managing life stressors, the finding that these patients were able to manage events after treatment in a manner that prevented deterioration suggests that the skills taught in therapy inoculated patients from subsequent stress. This important outcome provides optimism that therapy has a preventive role against stressors occurring after therapy termination.

The finding by Cloitre et al. that patients characterized by emotion regulation problems could be retained in therapy and provided with efficacious exposure-based therapy highlights the need to recognize these patients in order to provide them with a targeted intervention that is different from existing formats of CBT. Whereas there is considerable evidence that adaptations of CBT, such as dialectical behavior therapy, are efficacious in treating borderline personality disorder (12), these trials have not compared CBT adaptations with standard CBT. The novelty of the Cloitre et al. study is that it advances current treatments beyond their current capacity and extends this evidence-based intervention to a wider range of patients.

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