CHAPTER THIRTEEN

Psychosocial Interventions for Treatment of Intermittent Explosive Disorder

Michael S. McCloskey
Mechanisms of Affect Dysregulation Laboratory (MAD LAB), Department of Psychology, Temple University, Philadelphia, PA, United States

Contents

Introduction

Dysregulated anger and aggression is a feature of several psychological disorders including posttraumatic stress disorder (PTSD), antisocial and borderline personality disorders, and conduct disorder to name just a few (American Psychiatric Association, 2013). Problematic aggression is also seen in transdiagnostic public health problems such as intimate partner violence and child abuse. Thus anger and aggression have long been targets of interventions efforts. Studies support the efficacy of psychosocial interventions overall and cognitive-behavioral therapies (CBT) in particular for anger and interpersonal aggression, with multiple metaanalytic studies suggesting moderate to large effect of cognitive-behavioral interventions in reducing anger and aggression (Beck & Fernandez, 1998; Bowman-Edmondson & Cohen-Conger, 1996; Del Vecchio & O'Leary, 2004; DiGuiseppe & Tafrate, 2003; Lee & DiGuiseppe, 2018). Furthermore, though no specific form of CBT appeared clearly superior, multicomponent

https://doi.org/10.1016/B978-0-12-813858-8.00013-9

CBT containing both cognitive and behavioral components tend to have the greatest empirical support, with the likelihood that this type of intervention will be particularly useful when treating aggressive behavior (Del Vecchio & O'Leary, 2004).

At this time, there is growing support that psychosocial interventions can reduce aggression even in historically treatment-resistant populations. A metaanalysis of treatments for intimate partner violence using either CBT or advocacy-based intervention found significant reductions in physical violence for both treatments, albeit larger for CBT (standardized mean difference (SMD) = 0.79) than for advocacy programs (SMD = 0.13). A second metaanalysis also found that couples interventions, most of which were behavioral or cognitive-behavioral, significantly reduced partner violence (Karakurt, Whiting, van Esch, Bolen, & Calabrese, 2016). One notable exception, however, is antisocial personality disorder, where the few well-controlled trials do not show CBT, or other psychosocial, interventions effective in reducing anger and aggression (Davidson et al., 2009; National Collaborating Centre for Mental Health, 2010).

That said, one disorder not considered in any of the aforementioned studies and metaanalyses is Intermittent Explosive Disorder (IED). IED is unique from all other psychological disorders in that excessive affective aggression is pathognomonic for the disorder. Accordingly, individuals with IED have greater deficits in anger control and emotion regulation (Fettich, McCloskey, Look, & Coccaro, 2014) and report more distress and impairment related to their aggression, even relative to those with other psychiatric disorders (Kulper, Kleiman, McCloskey, Berman, & Coccaro, 2015; see also Chapter 3). The primacy and severity of anger, aggressiveness and associated deficits, can make treatment more challenging relative to those in other angry populations. In this chapter, we will look in depth at the limited research on psychosocial interventions for IED including a brief session by session description of a specific CBT intervention for IED.

Initial Trial of Angry Drivers With and Without IED

The first known study to examine the efficacy of psychosocial interventions for IED was an evaluation of a brief (four 90-minute sessions) cognitive-behavioral program for aggressive drivers (Galovski & Blanchard, 2002). The primary goal of the study was to determine if the CBT intervention reduced aggressive and angry driving as well as general anger and distress in a sample of 28 aggressive drivers (20 court-referred,

8 self-referred) relative to a self-monitoring control condition. Results showed that CBT reduced aggressive driving and general anger more than self-monitoring and that these changes remained at follow-up 2 months later. More central to this chapter, secondary analyses included a comparison of aggressive drivers who did ($n=9$) vs. who did not ($n=18$) meet criteria for IED. These results found that individuals with IED displayed only about half the reduction in aggressive driving that Non-IED drivers displayed, approaching statistical significance ($P=.06$). From this, the authors inferred that drivers with IED "may require a more intensive and prolonged treatment."

CRCST for IED

Research Findings

Cognitive restructuring, relaxation, and coping skills training (CRCST) is multicomponent CBT intervention developed by Deffenbacher and McKay to treat situational and general anger (Deffenbacher & McKay, 2000). This eight-session (plus assessment session) treatment, which included two sessions focusing on relaxation training, a third devoted to cognitive restructuring, and the remaining five teaching coping skills training (i.e., hierarchical imaginal exposure) to increasingly angering situations, was shown to be effective reducing anger and aggression in predominately nonclinical samples (e.g., Deffenbacher, Filetti, Lynch, Dahlen, & Oetting, 2001; Hazaleus & Deffenbacher, 1986). However, it had not been used to aggressive disorders such as IED until the early 2000s. McCloskey, Deffenbacher, and Coccaro modified CRCST for use with individuals with IED. This included extending the treatment to 12 sessions (plus a presession), increasing the time spent on cognitive restructuring to 2.5 sessions, inclusion of a time-out intervention to resist aggressive impulses, more time devoted to coping skills training (6 sessions), and a greater emphasis on relapse prevention during the latter sessions. These changes were based on the extant data on IED. For example, the decision to increase the time spent on cognitive restructuring was informed by studies showing that individuals with IED have both severe hostile attribution biases (Coccaro, Noblett, & McCloskey, 2009; Coccaro, Fanning, Keedy, & Lee, 2016; see also Chapter 8) and well as deficits in executive functioning (Best, Williams, & Coccaro, 2002). Likewise, the decision to include a time-out procedure early in the intervention was informed by both patient report and research showing that anger and aggressive outbursts for those with

IED feel more "out of control" (Kulper et al., 2015). Accordingly, we posited that time-out procedures can provide a straightforward behavioral strategy for responding to aggressive impulses while the person with IED is still in the process of learning other techniques.

A preliminary study on the efficacy of CRCST for IED compared group and individual formats of CRCST for IED (henceforth called CRCST) to a self-monitoring wait-list control (McCloskey, Noblett, Deffenbacher, Gollan, & Coccaro, 2008). Individual CRCST consisted of 12 weekly 50-minute sessions. Group CRCST consisted of 12 weekly 75-minute sessions led by two cotherapists. Group CRCST also differed from individual CRCST in that feedback and suggestions for participants were elicited from their fellow members. Finally, the self-monitoring group was an enhanced wait-list condition in which participants were asked to monitor and record all situations in which they became angry and/or aggressive. Participants in the self-motioning condition were informed that monitoring problematic behavior can reduce engagement in that behavior (Michie et al., 2012). Fifteen participants were evenly randomized into each of the three conditions. Primary outcome measures included past week aggression (Overt Aggression Scale-Modified (OAS-M); Coccaro, Harvey, Kupsaw-Lawrence, Herbert, & Bernstein, 1991)), as well as measures of cognitive hostility (Hostile Automatic Thoughts (Snyder, Crowson, Houston, Kurylo, & Poirier, 1997)), and anger (State-Trait Anger Expression Inventory-2 (Spielberger, 1999)). Secondary measures included symptoms of depression and anxiety as well as quality of life. All measures were given at pretreatment, posttreatment, and (for those in the CRCST conditions) 3-month follow-up.

Only four participants dropped out prior to posttreatment (two in each of the self-monitoring and group CRCST conditions) and, critically, history of aggression and other demographic/clinical characteristics did not differ between the groups. Intent-to-treat analyses showed that CRCST, in either format, produced significant decreases in aggressive behavior that were greater than the nonsignificant change from pre to post for the self-monitoring group. Combining the two CRCST conditions and comparing it to self-monitoring at posttest (controlling for pretest scores) yielded a large effect (Cohen's $d = 0.98$) of CRCST on aggressive behavior (Fig. 1).

Similar results were found for trait anger with both CRSCT conditions showing a significant pre-post decrease in STAXI trait anger score that well exceeded the marginally significant pre-post reduction in anger among those in the self-monitoring group. This same pattern of both CRCST conditions

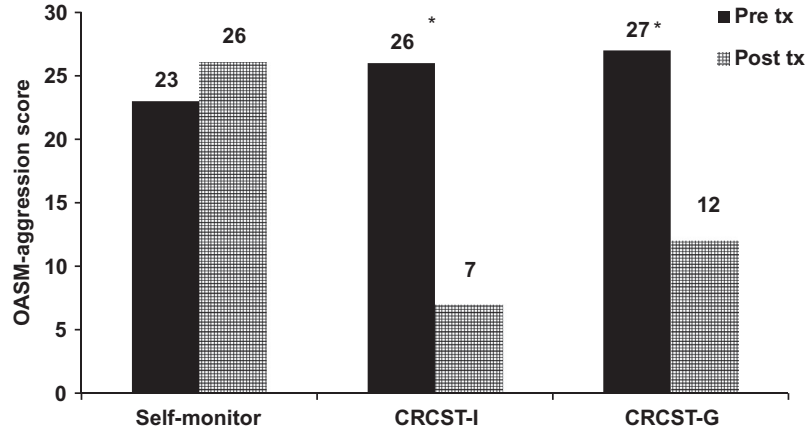

Fig. 1 Aggression as a function of time × treatment condition (McCloskey et al., 2008). Note: *CRCST-G*, group CRCST; *CRCST-I*, individual CRCST; *OASM*, overt aggression scale-modified; *Self-monitor*, self-monitoring control; *tx*, treatment; posttreatment OASM aggression scores (controlling for pretreatment) CRCST-I, CRCST-G < Self-monitor ($P < .01$). * = within group pre-post tx difference $P < .005$.

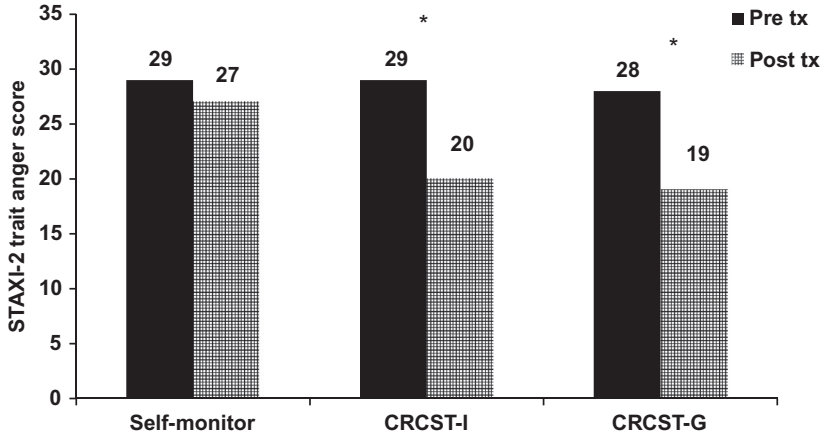

Fig. 2 Trait anger as a function of time × treatment condition (McCloskey et al., 2008). Note: *CRCST-G*, group CRCST; *CRCST-I*, individual CRCST; *Self-monitor*, self-monitoring control; *STAXI-2*, state trait anger expression inventory-2; *tx*, treatment; posttreatment STAXI-2 trait anger scores (controlling for pretreatment) CRCST-I, CRCST-G < Self-monitor ($P < .01$). * = within group pre-post tx difference $P < .001$.

being comparable and outperforming self-monitoring was also shown for pre-post deceases in depressive symptoms. Furthermore, these treatment gains (and the others listed as follows) for CRCST remained at 3-month follow-up (Fig. 2).

For some measures, there was a suggestion that individual CRCST may be preferable to group CRCST. For example, only individual CRCST displayed a greater decrease in hostile automatic thoughts from pre- to posttreatment relative to self-monitoring, with group CRCST not significantly different from either other condition. Likewise, only individual CRCST displayed a significantly greater improvement in quality of life from pre- to posttreatment relative to self-monitoring, with group CRCST, again, not significantly different from either other condition. That said, when examining only participants who completed the active phase of the study, group CRCST outperformed self-monitoring in improving quality of life. This was the only study finding that differed when examining the "intent to treat" sample vs. the "completer" sample. The strongest evidence that individual CRCST may be superior to group CRCST was that 47% of participants in the individual CRCST condition were "remitted" (i.e., no verbal or physical aggression reported on their posttreatment OAS-M) compared to 13% in the group CRCST condition and 7% in the self-monitoring condition. However, the difference between individual and group CRCST only represented a nonsignificant trend ($P = .10$) and, in the absence of an overall difference between conditions in reducing aggressive behavior, one must be cautious in interpreting this finding regarding remission.

Three of the four participants who refused to be randomized stated they were not willing to be a part of group therapy; the remaining participant was not willing to be in the self-monitoring condition. Thus individual CRCST seemed to be more initially desirable. However, this preference did not persist once treatment began as individual and group CRCST did not differ on measures of working alliance goals, task, or bond at either session 4 or the end of treatment (session 12).

Limitations include that this pilot study had a relatively small sample and that the therapists were licensed clinical psychologists with considerable experience working with those with IED, which may limit the generalizability to other treatment providers. Finally, treatment competence was not assessed. Despite these limitations, this study provides the first randomized clinical trial supporting the efficacy of CBT in treating IED.

After the 2008 study, additional minor modifications were made to the CRCST intervention (e.g., reducing jargon in description of cognitive distortions and reducing the number of strategies to challenge cognitive distortions). This slightly modified version of individual CRCST was compared to a supportive psychotherapy control. Data from that trial showed that CRCST, again, produced large pre-post decreases in anger, aggression,

and associated symptoms that exceeded the more modest gains made by supportive psychotherapy. Furthermore, examination of predictors of CRCST across studies showed that the effects of CBT in treating IED are not impacted by most demographic variables or psychiatric comorbidities. A brief session by description of CBT for IED is provided as follows.

CRCST for IED Intervention

Pretreatment Session: During this brief (~30 minute) session, the rules for confidentiality are provided and the client is given the rationale for CRCST. The client's aggressive behavior is reviewed and their goals for treatment are discussed. The client and therapist then work on developing an anger scale that will be used throughout the treatment. The anger scale identifies cognitive, emotional, physiological, and behavioral anchors for varying levels of anger at 20-point increments from 0 (completely relaxed) through 100 (their angriest and most aggressive ever), with 40 set as the point at which the client's anger begins to cause mild aggressive behavior (e.g., "snapping at others"). At the end of the session the client is introduced to an anger and aggression log in which they record all angering events and their behavioral response. This log is used throughout the treatment with additional columns to record thoughts and coping responses as the client progresses through the treatment.

Session 1: After reviewing the previous week's anger log, a rationale for the utility of relaxation training is provided. Clients are then asked to develop a relaxation image, with the therapist eliciting emotional and sensory details of the scene. The client practices the scene in session after which the therapist gets feedback on how effective the scene was (i.e., how vivid, how relaxing) and either keeps or modifies the scene accordingly. Then progressive muscle relaxation is taught using the method outlined by Deffenbacher and McKay (2000). As with all sessions, the client is tasked with practicing the newly learned skills between sessions.

Session 2: Visual imagery and progressive muscle relaxation techniques from session 1 are reviewed with the client taking more of a lead in the exercise. The additional relaxation technique of deep (diaphragmatic) breathing is introduced. The client and therapist also work to help the client develop three to four general coping thoughts that can be used to help (the client) stay calm in angering situations. The client is asked to keep the coping thoughts close by (either in paper version or electronically) and refer to them when angry until they are memorized.

Session 3: Previously learned relaxation techniques are reviewed and the client is asked to provide their general coping thoughts from memory. Relaxation without tension is then presented, followed by combined relaxation skills in which deep breathing, relaxation without tension, and visual imagery are integrated. The use of time-out is then introduced with an emphasis on the utility of the technique and the importance of both taking the time-out prior to engaging in aggression and using relaxation skills and coping thoughts (versus perseveration) during the time-out.

Session 4: The client is introduced to the CBT model of anger and aggression in which thoughts moderate the relationship between events and emotional and behavioral responses. Several examples are provided by both the therapist and the client. The concept of "anger distortions" is then introduced with a focus on catastrophizing, overgeneralizing, mind-reading, blaming, name-calling, and "shoulds." Clients begin tracking their anger thoughts on their anger and aggression log.

Session 5: The CBT model and anger and aggression, and anger distortions are reviewed. Clients are then introduced to the use of strategies to challenge anger distortions. After the rationale is provided, clients are presented two strategies to "talk back" to each of the six of the anger distortions. For example, clients are taught the strategies of "being realistically negative" and "looking at the whole picture" to address problems with catastrophizing. For each strategy, the therapist provides an example and then has the client provide an example to demonstrate understanding.

Session 6: Anger distortions and strategies to talk back to the distortions are reviewed. Then coping skills training is introduced. The client provides details for a moderate (~40–50 on the anger scale) anger scene. Key anger thoughts and the underlying distortions are identified and new coping thoughts using the strategies learned in session 5 are developed. The client is then asked to imagine the anger scene in as much detail as possible, while the therapist emphasizes anger evoking imagery and thoughts. Once the client is feeling the anger from the scene (which they indicate by briefly raising their hand), the client is asked to wipe the scene and use their relaxation skills and new coping thoughts until they are no longer angry. The therapist and client process the scene and modify the angering and/or coping thoughts as needed and repeat the scene one to two times.

Session 7: Progress to date is reviewed including changes in anger and aggression frequency and intensity on the anger and aggression log. The effect of any changes in anger and aggressive behavior is assessed. Clients are asked which skills they find most helpful, and which ones are they still

having trouble with. The clients then work on one to two moderate-high anger scenes (50–70 on the anger scale) using the methods outlined in session 6.

Session 8: Clients complete coping skills training for the anger scenes in session 7. The therapist then introduces the concept of coping skills training while remaining in the anger scene. Coping skills training is repeated with the client continuing to imagine the anger scene (rather than erase it) while engaging in relaxation skills and using their new coping thoughts. For the remainder of the CRCST sessions, coping skills training will be conducted in this way.

Session 9: Two high (70–90) anger scenes are developed, with the clients taking more of the lead in challenging anger distortions and developing new coping thoughts. The clients then practice coping skills training for these scenes.

Session 10: The therapist introduces the concept of overlap between anger, anxiety, and sadness/depression, highlighting the overlap in physiological (for anxiety) and cognitive (for both anxiety and depression) symptoms. General examples are provided by the therapist and then examples from the clients' life where feelings of anxiety or sadness led to anger/aggression (or vice versa) are elicited. The use of techniques learned to respond to high levels of anxiety and sadness is then addressed. Coping skills training on the two high anger scenes from session 9 is then practiced.

Session 11: Treatment gains to date and their current and future impact on the client's life are discussed. Treatment termination is addressed and a plan to address posttreatment provocation is developed. Coping skill training for highest (90–100) anger scenes is conducted.

Session 12: The concept of relapse prevention is introduced with the distinction between a "slip" and "relapse" being largely dependent on how the slip is addressed (i.e., explore why the slip occurred and develop a plan to more effectively address it next time *vs.* giving up). A relapse prevention plan is then developed with the client (e.g., continue to use cognitive restructuring, relaxation, and other coping skills in stressful situations; review how they are handling their anger each week). Coping skills for the worst highest anger scene is practiced. Finally, the therapist provides feedback on the positive changes noted and reinforces that continued improvement requires ongoing commitment (an analogy is often made to getting in good physical condition *vs.* staying in good physical condition). Prior to concluding treatment the therapist checks in on how the client is feeling and answers any questions the client has.

Other Cognitive-Behavioral Interventions for IED

Only two other published studies have examined psychosocial interventions for IED. Both are very recent and employ variants of cognitive-behavioral therapy (CBT). The first study (Costa et al., 2018) tested the efficacy of CBT group therapy among a group of 84 treatment-seeking individuals with IED from an Impulse Control Disorders Outpatient Unit in São Paulo, Brazil. Treatment consisted of 15 weekly 90-minute group sessions followed by three maintenance sessions every 2 weeks. All treatment sessions were conducted by two psychologists. CBT content included psychoeducation on the neurophysiology of anger, relaxation training, automatic thoughts and core beliefs, assertiveness training and problem solving, and relapse prevention. Participants completed the STAXI validated for use in Brazilian Portuguese (Biaggio, 2003) at pretreatment and at posttreatment.

Of the 84 participants, 25 (30%) dropped out prior to end of treatment. For the remaining 59 participants, highly significant decreases in trait anger, anger expression-in, and anger expression-out, along with a highly significant increase in anger control (all $P < .001$), were reported. The only nonsignificant finding was for state anger (which assesses anger "at this moment" and, thus, is not a strong estimate of general anger). These effects were large and tended to be slightly larger than the group CBT condition and slightly lower than individual CBT found by McCloskey et al. (2008).

It is important to note that this publication represents a preliminary analysis of a group CBT intervention and that it was not a randomized control trial, both of which limits the interpretability of the results, despite the fact that other randomized control trials of IED using a wait-list/self-monitoring tend to find little to no improvement in the control condition (Costa et al., 2018; McCloskey et al., 2008). In addition, aggression frequency and severity was not directly assessed. Finally, the trial only included participants who completed the trial and did not take into account the sizable dropout rate, which may have inflated the study effects. Despite these limitations, this study does provide evidence that individuals who complete a CBT intervention experience reductions in anger and anger expression, and increased their anger control.

A second study (Hewage et al., 2018) examined the efficacy of a trauma-focused CBT (TF-CBT) modified to be culturally appropriate for the individuals in postconflict Timor-Leste. Seventy-eight participants with

DSM-IV IED and a history of trauma were evenly randomized to TF-CBT or to a wait-list control condition. TF-CBT consisted of seven 120-minute individual sessions conducted with a highly experienced (20 years) clinician over 4 weeks. Drawing from the Adaptation and Development after Persecution and Trauma (ADAPT) model (Silove, 2013), the therapy content included aspects of narrative exposure therapy (Onyut et al., 2005), including creation of a personal narrative (Timor Lifeline) that integrated traumatic events the participant experienced and their patterns of explosive anger, as well as imaginal exposure to past traumatic events. Psychoeducation and core cognitive-behavioral techniques such as cognitive restructuring, as well as mindfulness-based relaxation, were integrated into TF-CBT, with modifications to increase the cultural sensitivity of the treatment (e.g., the use of traditional Timorese dolls to serve as proxies for the participant and other key individuals) and reflect an understanding of anger as a natural reaction to the injustices observed by many of the participants. Assessment was conducted at pretreatment, posttreatment, and 1-month follow-up and included measures of DSM-IV IED diagnostic criteria, anger and anger expression (STAXI-2), overall distress, and PTSD criteria.

Overall, dropout rates were as might be expected in this population, with seven participants (18%) in the TF-CBT condition dropping out during the treatment and seven participants (18%) in the wait-list condition dropping out between posttreatment and 1-month follow-up. Baseline assessment showed that the TF-CBT group reported greater anger expression-out than the wait-list group ($P = .04$), suggesting that the TF-CBT group may have been somewhat more aggressive. Notably, both groups reported 13–14 potentially traumatic events and approximately one-fourth of the sample (TF-CBT = 33.3%, wait-list = 20.5%) met full criteria for PTSD. Ultimately, the TF-CBT group displayed significant reductions in anger expression and significant increases in anger control. This was superior to the wait-list group, who showed nonsignificant increases in anger expression and little change in anger control. Furthermore, at study's end, no participant in the TG-CBT met for current IED or PTSD at posttreatment or 1-month follow-up (vs. 79.5%–71.8% for IED and 7.7%–15.4% for PTSD in the wait-list group). These results suggest large treatment effects for TF-CBT in the treatment of IED.

Some limitations of the study should be noted, however. Changes in frequency and severity of aggressive acts were only indirectly assessed via the IED interview used in the study. In addition, it is difficult to know how current IED was defined because there was no specifier for current vs. past IED in the DSM-IV, nor a clear delineation of then frequency and severity

threshold for DSM-IV. While this is more a limitation of the DSM-IV IED criteria set, the lack of reported operational definitions for these criteria, as well as a reduction from 100% current IED to 0% in the treatment group (and 80% in the wait-list group despite increases in anger expression out) in only 1 month raises questions about how current IED was defined. There is also the issue of comorbid trauma/PTSD. Past trauma was a requirement for the study despite it not being a part of the IED criteria set. Furthermore, there was a very high level of trauma across participants, partly owing to the conditions in Timor-Leste, with about one-fourth of all participants meeting full criteria for current PTSD and likely many other participants meeting for subclinical and/or past PTSD. Even the treatment, itself, was trauma focused and there was a reduction in current PTSD from 33% to 0% in the TF-CBT group. Thus it is possible that for several of the IED participants, aggression may have been better accounted for by their trauma/PTSD symptoms rather than IED. While the authors reported excluding individuals for which PTSD was primary, they did not specify how this was determined and/or if the treatment worked by reducing their trauma symptoms. Finally, the intervention was administered by a single, highly experienced therapist, leaving questions about its generalizability to other treatment providers. Despite these limitations, this study was an ambitious investigation in of IED treatment in a low-income postconflict country that provides further evidence that psychosocial interventions can be effective in treating IED/dysregulated affective aggression.

Summary

Research on psychosocial interventions for IED is still in its infancy. Cognitive-behavioral interventions have been shown to be effective in treating anger and aggression; however, little research has been conducted assessing the efficacy of CBT (or any psychosocial intervention) in treating the severe anger dysregulation and aggression characteristic of IED. The few published studies that have examined CBT for IED, though all somewhat methodologically limited, have been consistent in showing that CBT can reduce anger and aggressive tendencies and increase anger control. This improvement appears to be in excess of wait-list/self-monitoring controls and early data suggests the improvement from CBT exceeds that of more nondirective, client-centered therapy. However, more well-controlled studies are needed including studies using more rigorous comparison conditions (e.g., treatment as usual) as well as investigations of other treatment modalities both separate from, and in combination with, CBT.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.

Beck, R., & Fernandez, E. (1998). Cogntive-behavioral therapy in the treatment of anger. *Cognitive Therapy and Research*, *22*, 62–75.

Best, M., Williams, J. M., & Coccaro, E. F. (2002). Evidence for a dysfunctional prefrontal circuit in patients with an impulsive aggressive disorder. *Proceedings of the National Academy of Sciences of the United States of America*, *99*(12), 8448–8453.

Biaggio, A. (2003). *Manual do Inventário de Expressão de Raiva como Estado e Traco (STAXI)*. São Paulo: Vetor.

Bowman-Edmondson, C., & Cohen-Conger, J. (1996). A review of treatment efficacy for individuals with anger problems: conceptual, assessment and methodological issues. *Clinical Psychology Review*, *16*, 251–275.

Coccaro, E. F., Fanning, J. R., Keedy, S. K., & Lee, R. J. (2016). Social cognition in Intermittent Explosive Disorder and aggression. *Journal of Psychiatric Research*, *83*, 140–150.

Coccaro, E. F., Harvey, P. D., Kupsaw-Lawrence, E., Herbert, J. L., & Bernstein, D. P. (1991). Development of neuropharmacologically based behavioral assessments of impulsive aggressive behavior. *The Journal of Neuropsychiatry and Clinical Neurosciences*, *3*(2), S44–S51.

Coccaro, E. F., Noblett, K. L., & McCloskey, M. S. (2009). Attributional and emotional responses to socially ambiguous cues: validation of a new assessment of social/emotional information processing in healthy adults and impulsive aggressive patients. *Journal of Psychiatric Research*, *43*(10), 915–925.

Costa, A. M., Medeiros, G. C., Redden, S., Grant, J. E., Tavares, H., & Seger, L. (2018). Cognitive-behavioral group therapy for intermittent explosive disorder: description and preliminary analysis. *Revista Brasileira de Psiquiatria*, *40*(3), 316–319.

Davidson, K., Tyrer, P., Tata, P., Cooke, D., Gumley, A., Ford, I., et al. (2009). Cognitive behaviour therapy for violent men with antisocial personality disorder in the community: an exploratory randomized controlled trial. *Psychological Medicine*, *39*(4), 569–577.

Deffenbacher, J., Filetti, L., Lynch, R., Dahlen, E., & Oetting, E. (2001). Cognitive-behavioral treatment of high anger drivers. *Behaviour Research and Therapy*, *40*, 895–910.

Deffenbacher, J. L., & McKay, M. (2000). *Overcoming situational and general anger*. Oakland, CA: New Harbinger Publications.

Del Vecchio, T., & O'Leary, K. D. (2004). Effectiveness of anger treatments for specific anger problems: a meta-analytic review. *Clinical Psychology Review*, *24*(1), 15–34.

DiGuiseppe, R., & Tafrate, R. C. (2003). Anger treatment for adults: a meta-analytic review. *Clinical Psychology: Science and Practice*, *10*(1), 70–84.

Fettich, K. C., McCloskey, M. S., Look, A. E., & Coccaro, E. F. (2014). Emotion regulation deficits in intermittent explosive disorder. *Aggressive Behavior*, *41*(1), 25–33.

Galovski, T., & Blanchard, E. B. (2002). The effectiveness of a brief psychological intervention on court-referred and self-referred aggressive drivers. *Behaviour Research and Therapy*, *40*(12), 1385–1402.

Hazaleus, S. L., & Deffenbacher, J. L. (1986). Relaxation and cognitive treatments of anger. *Journal of Consulting and Clinical Psychology*, *54*(2), 222–226.

Hewage, K., Steel, Z., Mohsin, M., Tay, A. K., De Oliveira, J. C., Da Piedade, M., et al. (2018). A wait-list controlled study of a trauma-focused cognitive behavioral treatment for intermittent explosive disorder in Timor-Leste. *The American Journal of Orthopsychiatry*, *88*(3), 282–294.

Karakurt, G., Whiting, K., van Esch, C., Bolen, S. D., & Calabrese, J. R. (2016). Couples therapy for intimate partner violence: a systematic review and meta-analysis. *Journal of Marital and Family Therapy*, *42*(4), 567–583.

Kulper, D. A., Kleiman, E. M., McCloskey, M. S., Berman, M. E., & Coccaro, E. F. (2015). The experience of aggressive outbursts in Intermittent Explosive Disorder. *Psychiatry Research*, *225*(3), 710–715.

Lee, A. H., & DiGuiseppe, R. (2018). Anger and aggression treatments: a review of meta-analyses. *Current Opinion in Psychology*, *19*, 65–74.

McCloskey, M. S., Noblett, K. L., Deffenbacher, J. L., Gollan, J. K., & Coccaro, E. F. (2008). Cognitive-behavioral therapy for intermittent explosive disorder: a pilot randomized clinical trial. *Journal of Consulting and Clinical Psychology*, *76*(5), 876–886.

Michie, S., Whittington, C., Hamoudi, Z., Zarnani, F., Tober, G., & West, R. (2012). Identification of behaviour change techniques to reduce excessive alcohol consumption. *Addiction*, *107*(8), 1431–1440.

National Collaborating Centre for Mental Health. (2010). *Antisocial personality disorder. Vol. 77*. Leicester: The British Psychological Society and The Royal College of Psychiatrists.

Onyut, L. P., Neuner, F., Schauer, E., Ertl, V., Odenwald, M., Schauer, M., et al. (2005). Narrative Exposure Therapy as a treatment for child war survivors with posttraumatic stress disorder: two case reports and a pilot study in an African refugee settlement. *BMC Psychiatry*, *5*, 7.

Silove, D. (2013). The ADAPT model: a conceptual framework for mental health and psychosocial programming in post conflict settings. *Intervention*, *11,* 237–248.

Snyder, C. R., Crowson, J. J., Houston, B. K., Kurylo, M., & Poirier, J. (1997). Assessing hostile automatic thoughts: development and validation of the HAT scale. *Cognitive Therapy and Research*, *21*(4), 477–492.

Spielberger, C. D. (1999). *STAXI-2: State trait anger expression inventory-2, professional manual.* Lutz, FL: Psychological Assessment Resources, Inc.