

## Adapting Cognitive-Behavioral Therapy for Depressed Adolescents Exposed to Interpersonal Trauma: A Case Study With Two Teens

Anne P. DePrince and Stephen R. Shirk, *University of Denver*

*A substantial body of evidence indicates that interpersonal trauma increases risk for adolescent and adult depression. Findings from 4 clinical trials for adolescent depression show poorer response to standard cognitive-behavioral therapy (CBT) among depressed adolescents with a trauma history than youth without such a history. This paper reports on the development of a modified CBT (mCBT) protocol that has been adapted for treating depressed adolescents who have been exposed to traumatic interpersonal events (physical/sexual abuse or witnessing domestic violence). First, we provide an empirical rationale for targeting executive function deficits and trauma-related cognitions in the mCBT protocol. Second, we present promising results from 2 community clinic cases.*

A substantial body of evidence links childhood interpersonal trauma to risk for major depression in adolescence and adulthood (Kaplow & Widom, 2007; Kendler, Gardner, & Prescott, 2002; Kendler, Kuhn, & Prescott, 2004). Large scale, prospective studies using nationally representative samples have reported a two- to five-fold increase in risk for depression among adolescents with a history of physical abuse, sexual abuse, or neglect (Brown, Cohen, Johnson, & Samailles, 1999; Schraedley, Gotlib, & Hayward, 1999). Witnessing domestic violence also predicts later depression among adolescents (Sternberg, Lamb, Greenbaum, & Cicchetti, 1993). Therefore, a significant subgroup of adolescents referred for the treatment of depression are likely to have experienced some form of interpersonal trauma, through either direct abuse or witnessing domestic violence. In fact, Lau and Weisz (2003) found 47% of children referred for community clinic treatment had *documented* histories of maltreatment; thus, actual rates of interpersonal trauma exposure are likely to be higher given underreporting of these experiences.

A number of CBT protocols have been developed for the treatment of adolescent depression (Weersing, Roszenman, & Gonzalez, 2009). All are multicomponent, structured, and relatively time-limited, averaging 12 to 16 sessions. Common components include mood monitoring, cognitive

restructuring, problem-solving training, and behavioral activation; however, treatments vary in the degree to which components are emphasized, sequenced, and supplemented with other components such as relaxation or social skills training. CBT protocols for adolescent depression tend to produce moderate effects (Klein, Jacobs, & Reinecke, 2007); however, four recent studies document diminished responses to CBT among youth with histories of trauma exposure.

Specifically, Barbe, Bridge, Birmaher, Kolko, and Brent (2004) reported that depressed adolescents with a history of sexual abuse (relative to nonabused peers) were more likely to have had a psychiatric hospitalization and a depressive relapse at 2 years posttreatment, even after controlling for maternal depression, referral status, race, family conflict, and treatment assignment. Although differences in acute response did not attain statistical significance, response rates were lower among adolescents with a sexual abuse history (33%) than those without (55%). Similarly, a school-based trial of CBT for adolescent depression revealed that adolescents with trauma exposure showed a lower treatment response rate (54%) compared to nonexposed adolescents (73%; Shirk, Kaplinski, & Gudmundsen, 2009). In addition, recent findings from the Treatment of Adolescent Depression Study (TADS), the largest randomized, controlled trial for adolescent depression, showed that mean depression scores remained in the clinical range among sexually abused adolescents treated with CBT (Lewis et al., 2010). For youth who had a history of physical abuse, CBT did not differ from placebo at the end of the acute phase of treatment. Finally, results from Treatment of Resistant Depression in Adolescents (TORDIA) trial

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revealed that adolescents who responded to the addition of CBT to medication were *less* likely to report a trauma history (Shamseddeen et al., 2011).

Taken together, these results indicate that trauma—especially *interpersonal* trauma—dampens the effects of CBT for adolescent depression. Therefore, the current paper provides an empirical rationale for making modifications to traditional CBT for adolescent depression. As we will review below, interpersonal trauma exposure is linked to problems with disruptions in executive functions and trauma-related beliefs. We use the term *executive functions* to refer to a set of diverse abilities, such as directing attention (including shifting, inhibiting, and focusing attention), manipulating information in working memory, and self-monitoring (DePrince, Weinzierl, & Combs, 2009). We use the term *trauma-related beliefs* to refer to cognitions that are common following interpersonal trauma, such as shame, self-blame, fear, and anger (DePrince, Zubriggen, Chu, & Smart, 2010). We propose that disruptions in executive functions as well as trauma-related beliefs may decrease the effects of CBT for depression with trauma-exposed youth. Thus, we describe treatment modifications that targeted executive functions and trauma-related beliefs. Finally, we present promising results from two community clinic cases using this modified CBT (mCBT).

Before presenting the rationale and cases, however, it is important to address the question: Why not apply treatments that have already been developed for traumatized groups? For example, Trauma-Focused CBT (TF-CBT) was developed as a treatment for posttraumatic stress disorder (PTSD) with sexually abused children and adolescents (e.g., Cohen, Deblinger, Mannarino, & Steer, 2004). A number of randomized controlled trials (RCTs) have now demonstrated the efficacy of TF-CBT in decreasing PTSD symptoms in children, ages 5 to 18, relative to treatment as usual (e.g., Cohen et al., 2004; Cohen, Mannarino, & Knudsen, 2005). TF-CBT involves several components administered to children, including stress inoculation training, the creation of a trauma narrative (exposure), and cognitive processing; a parent component is also included (Cohen, Mannarino, & Deblinger, 2002). While several of the RCTs also indicated modest decreases in depressive symptoms (e.g., Deblinger, Lippman, & Steer, 1996; Deblinger, Steer, & Lippman, 1999), at least one study revealed that those improvements did not hold at 12-month follow-up (Cohen et al., 2005). Thus, whether the focus on trauma adequately addresses factors related to managing depressive symptoms and their recurrence remains unclear. Further, TF-CBT does not explicitly consider youth executive functions, such as through exercises targeting attention. In addition, treatments that emphasize exposure, as through the development of the trauma narrative, could increase already-high dropout rates in community clinics by placing substantial treatment demands on adolescent clients.

Finally, clinicians might prefer choices in empirically supported approaches to trauma-related problems, as are available in the adult literature, to allow flexibility in approach given therapist and client preference. For these many reasons, then, our approach was to integrate trauma-related interventions into a CBT protocol with known efficacy for adolescent depression.

### Empirical Basis for Two Modifications

Executive functions refer to a group of abilities such as working memory, directing attention (including shifting, inhibiting, and focusing attention), and self-monitoring. CBTs place significant demands on executive function skills by requiring clients to monitor mood, direct and focus attention on automatic thoughts, consider evidence for beliefs, and generate alternative cognitions (Mohlman & Gorman, 2005). Depressed adolescents and adults show executive function deficits (e.g., Kyte, Goodyer, & Sahakian, 2005; Paelecke-Habermann, Pohl, & Lepow, 2005; Rogers et al., 2004; Rose & Ebmeier, 2006), as do trauma-exposed youth and adults (DePrince et al., 2009; El Hage, Gaillard, Isingrini, & Belzung, 2006; Stein, Kennedy & Twamley, 2002). For example, children ages 9 to 12 who were exposed to sexual or physical abuse or witnessed family violence showed deficits in a range of executive function skills (including working memory, processing speed, inhibition, and auditory attention) relative to children exposed to other types of noninterpersonal traumatic events such as vehicle accidents or to children with no trauma history (DePrince et al., 2009). Thus, depressed adolescents with interpersonal trauma histories may face challenges in the context of the executive function processes inherent in CBT.

Trauma-related beliefs refer to core beliefs (e.g., shame, self-blame, fear, betrayal) associated uniquely with interpersonal trauma exposure (Andrews, Brewin, Rose, & Kirk, 2000; Breitenbecher, 2006; DePrince et al., 2010). Cognitive therapy models have long posited links between childhood adversity and the development of maladaptive schemas (Beck, 1976; Beck & Young, 1985). Elaborating on this framework, Young, Klosko, and Weishaar (2003) proposed distinct patterns of association between specific forms of interpersonal trauma and specific maladaptive schema. For example, childhood physical and sexual abuse were observed to result in schema with themes of danger (e.g., “I can’t escape the feeling that something bad is about to happen”). However, traditional CBTs for adolescent depression typically focus on more general, depressogenic negative automatic thoughts. Adolescents learn to monitor negative automatic thoughts associated with mood states and to engage in cognitive restructuring (either challenging thoughts or substituting more helpful thoughts). Although these strategies may be sufficient for promoting change among depressed youth without trauma

histories, trauma-related beliefs are not addressed by focusing solely on depressogenic automatic thoughts.

### Treatment Adaptations

Based on the observations described above regarding executive functions and trauma-related beliefs, our goal was to adapt core components of existing, empirically supported CBT protocols to make the treatment more relevant to interpersonal trauma-exposed youth. A previous RCT (Rossello & Bernal, 1999) as well as a benchmarking study (Shirk et al., 2009) showed that the Cognitive Behavioral Treatment of Depression protocol developed by Muñoz, Aguilar-Gaxiola, and Guzmán (1986) and adapted for adolescent therapy (Rossello & Bernal, 1999) produced significant changes in adolescent depressive symptoms. Therefore, we adapted this empirically supported protocol for depressed adolescents with interpersonal trauma histories by integrating executive function training throughout the protocol and addressing explicitly trauma-related beliefs.

#### *Executive Function Modification Overview*

To consider executive functions in the modified protocol, we drew on attention-control training and mindfulness-based interventions. Both attention control training and mindfulness-based interventions have been previously used with adults diagnosed with major depressive disorder (MDD) with encouraging results (e.g., Papageorgiou & Wells, 2000; Segal, Williams, & Teasdale, 2002; Siegle, Ghinassi, & Thase, 2007). For example, Siegle and colleagues (2007) reported that clients randomly assigned to receive attention training reported decreases in depressive symptoms from pre- to posttreatment. Mindfulness-based interventions (that build on attention control training) teach clients self-regulation of attention (Bishop et al., 2004) and have been effective in addressing the serious problem of relapse in MDD (e.g., Ma & Teasdale, 2004; Segal et al., 2002; Teasdale et al., 2000). For example, mindfulness-based cognitive therapy (MBCT) significantly reduced relapse risk for clients with three previous episodes of depression, relative to treatment as usual, over 60 weeks (Teasdale et al.). MBCT targets executive functions by teaching clients to increase concentration; awareness of thoughts, feelings, bodily sensations; and attention to the present (e.g., versus ruminations about the past or worries about the future). By targeting executive functions through mindfulness-based approaches, our goal was to help clients to increase executive control while becoming aware of negative, ruminative thoughts and mood. Importantly, we sought to use mindfulness-based skills to bolster clients' ability to direct their attention in the executive function-related work of CBT (e.g., mood monitoring, generating alternatives, noticing thoughts and emotions).

#### *Trauma-Related Beliefs Modification Overview*

In order to address interpersonal trauma-related beliefs, the protocol encouraged therapists to address interpersonal trauma-related belief in sessions that dealt with thoughts, including traditional automatic thought content, and beliefs. In addition, we modified two sessions to focus entirely on trauma-related beliefs and related emotions. In these two sessions, therapists were explicitly directed to use trauma-related beliefs as examples of automatic thoughts and assumptions; this modification is based on existing protocols (e.g., Brent & Poling, 1997; Cloitre, Cohen, & Koenen, 2006; Resick & Schnicke, 1996).

Specific session-by-session modifications are described below.

### Case Study With Two Adolescents

The mCBT therapist was a female, licensed master's-level clinician who had been practicing for approximately 10 years (5 years at this clinic). The therapist attended a workshop on mindfulness-based therapy with adolescents as part of this initial phase of developing a modified treatment. In addition, the therapist was supervised by one of the treatment developers (APD) on a weekly basis. The selection of a master's-level clinician who was employed by a community clinic was part of the "deployment-focused" treatment development strategy used in this project (Weisz, Jensen, & McLeod, 2004). Cases were selected from the current caseload of a therapist involved in this treatment development project with the authors.

#### Clients

Two pilot cases involved adolescent girls referred for outpatient therapy in a community mental health clinic. Ana was a 15-year-old Latina female who was in treatment with the study clinician for approximately 10 months prior to the start of the mCBT protocol. Ana's biological father lived with a new wife and half-siblings. Ana lived with her mother, stepfather, and older siblings. Ana was performing well in school (e.g., appeared motivated to do well in school and involved in extracurricular activities). When treatment was initially started, Ana complained of panic attacks, which were resolved prior to the start of the mCBT protocol. At the time the mCBT protocol was initiated, depression was the primary complaint and treatment target. In terms of interpersonal trauma exposure, Ana had been exposed to domestic violence between mother and biological father. Ana's family struggled with significant economic problems, including problems meeting basic needs.

Maria was a 15-year-old Latina female who was in treatment with the study therapist for a little over a year before beginning the pilot protocol. Maria was initially referred by a medical provider who was treating Maria for cancer, which was successfully treated during the first year of her therapy with the study clinician. Initially, Maria reported

Table 1  
Major Session Topics for Adolescent Mood Project (AMP) and mCBT Protocols

Session #	AMP Protocol	mCBT
1	<p>Introduction to Therapy, Depression, and Mood Monitoring</p> <ul style="list-style-type: none"> <li>• Establish rapport; gather background information</li> <li>• Describe the logistics and ground rules of therapy</li> <li>• Provide rationale for treatment</li> <li>• Discuss depression and develop an understanding of the teen's unique experience of depression</li> <li>• Introduce mood monitoring</li> </ul>	<p>Introduction to Therapy, Depression, and Mindfulness</p> <ul style="list-style-type: none"> <li>• Establish rapport while gathering background information about the teen</li> <li>• Describe the logistics and ground rules of therapy</li> <li>• Provide rationale for treatment</li> <li>• Discuss depression and develop an understanding of the teen's unique experience of depression</li> <li>• Introduce mindfulness (Sources: <a href="#">Kabat-Zinn, 1990</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>
2	<p>Introduction to Automatic Thoughts</p> <ul style="list-style-type: none"> <li>• Introduce automatic thoughts</li> <li>• Present the link between thoughts and mood</li> <li>• Begin to show that our mood is dependent on our interpretation of events</li> <li>• Introduce thought monitoring</li> </ul>	<p>Mindfulness: Learning to Observe</p> <ul style="list-style-type: none"> <li>• Expand on the analogy of the automatic pilot</li> <li>• Present the link between thoughts and mood</li> <li>• Introduce observing skills through seeing and breathing exercises (Sources: <a href="#">Kabat-Zinn, 1990</a>; <a href="#">Linehan, 1993</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>
3	<p>Countering Negative Automatic Thoughts</p> <ul style="list-style-type: none"> <li>• Focus on negative automatic thoughts as contributors to depressed mood</li> <li>• Introduce the restructuring skill of cognitive counters</li> </ul>	<p>Mindfulness of Sights and Sounds: Learning to Describe</p> <ul style="list-style-type: none"> <li>• Introduce the concept of describing experiences with particular emphasis on nonjudgmental thoughts</li> <li>• Begin with external examples using seeing and hearing exercises (Sources: <a href="#">Kabat-Zinn, 1990</a>; <a href="#">Linehan, 1993</a>; <a href="#">Semple et al., 2005</a>; <a href="#">Siegel et al., 2007</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>
4	<p>Cognitive Restructuring Revisited</p> <ul style="list-style-type: none"> <li>• Catch up on material that might have been deferred</li> <li>• Practice basic cognitive restructuring skills</li> <li>• Identify and label depressotypic cognitive distortions</li> </ul>	<p>Mindfulness Now: Learning to Participate</p> <ul style="list-style-type: none"> <li>• Introduce the idea that autopilot thoughts can distract client to the past or future, particularly in the face of thoughts of past stressors or shameful events</li> <li>• Introduce concept of "participating" in relation to pleasant activities and behavioral activation (Sources: <a href="#">Linehan, 1993</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>
5	<p>Introduction to Stress Management</p> <ul style="list-style-type: none"> <li>o Recognize that some situations are stressful</li> <li>o Recognize that our interpretation of the situation contributes to felt stress</li> <li>o Recognize that stress doesn't just have to be endured but can be managed through cognitive and relaxation skills</li> </ul>	<p>Mindfulness of Thoughts</p> <ul style="list-style-type: none"> <li>• Introduce negative automatic thoughts (NATS) by relating to the autopilot analogy</li> <li>• Examine mindfulness of thoughts in context of behavioral activation activities</li> <li>• Uncover NATs and apply observing/nonjudgmental description skills to NATs (Sources: <a href="#">Cloitre et al., 2006</a>; <a href="#">Resick &amp; Schnicke, 1996</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>
6	<p>Engaging in Pleasant Activities as a Positive Coping Mechanism</p> <ul style="list-style-type: none"> <li>• Discuss how our optimal mood occurs when we strike a balance between engaging in things we "have to do" and things we "want to do"</li> <li>• Begin behavioral activation (activity scheduling)</li> </ul>	<p>Noticing Thoughts: Hey, They're Not Facts!</p> <ul style="list-style-type: none"> <li>• Emphasize that NATs on autopilot get so rehearsed that they become tapes that play over and over</li> <li>• Review common types of NATs</li> <li>• Notice evidence for NATs</li> <li>• Continue observing and describing exercises (Sources: <a href="#">Cloitre et al., 2006</a>; <a href="#">Resick &amp; Schnicke, 1996</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>
7	<p>Obstacles to Engaging in Pleasant Activities</p> <ul style="list-style-type: none"> <li>• Identify obstacles to engaging in pleasant activities</li> <li>• Deal with obstacles to engagement for teens still not participating in pleasurable activities, and</li> <li>• Identify and activate mastery activities</li> </ul>	<p>What to Do With All Those Fish in the Fish Tank?</p> <ul style="list-style-type: none"> <li>• Once NATs are noticed, clients have several choices, including to accept that the thoughts are there and observe them passing by, shift attention to something else, or select more helpful thoughts</li> <li>• Begin practice of each strategy (Sources: <a href="#">Cloitre et al., 2006</a>; <a href="#">Resick &amp; Schnicke, 1996</a>; <a href="#">Segal et al., 2002</a>)</li> </ul>

Table 1 (continued)

Session #	AMP Protocol	mCBT
8	Building a Strong Social Support System <ul style="list-style-type: none"> <li>• Discuss link between social support and ability to confront difficult situations</li> <li>• Assess teen's current social network, friendship quality</li> <li>• Discuss obstacles to close friendships and building a healthy social network</li> <li>• Role-play social skills</li> </ul>	Mindfulness of Trauma-Related Thoughts and Emotions <ul style="list-style-type: none"> <li>• Introduce idea that some NATs are common among people who have experienced interpersonal trauma</li> <li>• Identify trauma-related NATs relevant to teen</li> <li>• Use observing/nonjudging skills to recognize trauma-related NATs and their impact on mood and behaviors</li> </ul> (Source: Cloitre et al., 2006)
9	Mini-modules (one of the following based on case formulation) <ul style="list-style-type: none"> <li>• Anger Management</li> <li>• Social Problem-Solving</li> <li>• Anxiety Management</li> </ul>	More on Mindfulness of Trauma-Related Thoughts and Emotions <ul style="list-style-type: none"> <li>• Notice trauma-related NATs from previous week</li> <li>• Identify how trauma-related NATS affect mood and behaviors</li> <li>• Put into practice the ability to observe mind, body, and heart when faced with stressful situations</li> </ul> (Sources: Cloitre et al., 2006; Resick & Schnicke, 1996)
10	Mini-modules	Mindfulness of Relationships <ul style="list-style-type: none"> <li>• Examine how trauma-related cognitions affect relationships</li> <li>• Apply discussions to relationship stress or conflict</li> </ul> (Source: Cloitre et al., 2006)
11	Mini-modules	Participating Mindfully in Relationships <ul style="list-style-type: none"> <li>• Identify autopilot in relationships</li> <li>• Discuss social and assertiveness skills from mindfulness perspective</li> <li>• Elicit strategies for participating mindfully in social interactions</li> </ul>
12	Where Have We Come From and Where Do We Go From Here? <ul style="list-style-type: none"> <li>• Review relationship mini-module skills</li> <li>• Briefly review entire treatment and teen's progress</li> <li>• Troubleshoot about likely future obstacles</li> <li>• Say goodbye</li> </ul>	Where Have We Come From and Where Do We Go From Here? Staying on Active Pilot! <ul style="list-style-type: none"> <li>• Review mindfulness skills</li> <li>• Briefly review entire treatment and teen's progress</li> <li>• Troubleshoot about likely future obstacles</li> <li>• Say goodbye</li> </ul>

Note. All mCBT sessions drew heavily from the original AMP protocol; additional sources for session content are specified.

significant anxiety related to the medical condition in addition to complaints of depression. At the time that the mCBT protocol began, Maria lived with a younger sister and brother as well as her biological mother and stepfather (who is the biological father of her younger siblings). While Maria had a history of school success, both she and her mother reported that Maria's depression was interfering with school and she was not involved in any extracurricular activities at the time the mCBT protocol began. In terms of interpersonal trauma exposure, Maria had witnessed domestic violence involving fights among her caregivers and family members. Maria's family struggled with significant economic problems, including problems meeting basic needs.

### Assessment

The Kiddie-SADS Diagnostic Interview (KSADS; Kaufman et al., 1997), a semistructured diagnostic interview, was administered to generate *DSM-IV* diagnoses for major/minor depression, dysthymia, and PTSD. The K-SADS-PL

was administered to Ana and Maria by a graduate-level, independent evaluator who was trained to criteria. Total number of depression and PTSD symptoms that met threshold, per independent evaluator assessment, are reported.

The Beck Depression Inventory-II (BDI-II; Beck, Steer, Ball, & Ranieri, 1996) is a 21-item self-report measure of depressive symptoms in a forced-choice format. For each symptom assessed, scores range from 0 to 3, reflecting the intensity of the specific symptom. The psychometric properties of the BDI-II have been well-documented, with an average internal consistency of .86 among psychiatric patients. The total score was used as a dimensional measure of depressive symptom change over the course of the treatment.

### Procedure

Using a deployment-focused model, we worked with two community clinicians to fine-tune the manual prior to

the start of two pilot cases. Corresponding therapist and teen manuals were developed for the pilot cases. Two clients were then enrolled in this pilot study from the current caseload of one of the therapists. The therapist was asked to nominate two clients for a pilot study based on two criteria: presenting depression problems and exposure to interpersonal trauma. Because of the time-limited nature of this treatment development study, clients who had a demonstrated record of therapy attendance were selected to increase the probability of treatment completion so that the full protocol could be evaluated. Based on attendance considerations and the inclusion criteria, the therapist nominated two clients who had long-standing depression problems that had been unresponsive to treatment, and who were regularly attending therapy. Both teens had received usual care therapy for approximately a year prior to receiving m-CBT; per therapist report, usual care involved an eclectic mix of approaches with an emphasis on family systems, supportive, and client-centered techniques. According to the therapist, both adolescents were amenable to trying a new treatment approach, which seemed to bear out in terms of successful retention of the adolescents for the 12-session protocol.

Based on the therapist's nomination, clients and their caregivers received consent information from a graduate-level independent evaluator. Upon consent into the study, the independent evaluator administered the KSADS to assess depression diagnosis and the BDI. BDIs were then readministered by the therapist throughout the course of the intervention. Both clients attended the full 12 sessions of the intervention. In the 2 weeks following the last treatment session, clients were again administered the KSADS and BDI by an independent evaluator for the postassessment. Client 1 completed a follow-up assessment 5 months after the postassessment; Client 2 completed a follow-up assessment 3 months after the postassessment.

## Treatment

Shirk et al.'s (2009) Adolescent Mood Project (AMP) protocol comprised three 4-session modules that focused broadly on cognitive, behavioral, and interpersonal content, respectively. See Table 1 for a list of topics as well as respective modifications to the original AMP protocol made for the mCBT protocol. The mCBT protocol retained the core components related to mood monitoring, automatic thoughts, noticing thought-emotion-event connections, coping, and behavioral activation, though presented this information within a mindfulness approach (described in greater detail below). For example, the manual emphasized noticing thoughts without the traditional CBT expectation that thoughts will then be challenged, countered, and/or restructured. Consistent with the sort of cognitive flexibility

emphasized in mindfulness and acceptance-based approaches, clients learned a range of responses to automatic thoughts, from noticing the thought or focusing on a coping thought instead of challenging the thought.

Shirk et al.'s (2009) original manual allowed clients and therapists to choose the focus of the third module from set topics (e.g., from topics such as social anxiety, interpersonal relationships, anger management). In the current adaptation, the manual asked therapist and client to instead apply mindfulness skills to interpersonal relationships and trauma-related thoughts and emotions in those relationships.

As detailed in Table 1, most mindfulness adaptations were based on Segal et al.'s (2002) MBCT, though modifications were also based on empirically tested mindfulness and/or attention control training interventions (e.g., Kabat-Zinn, 1990; Linehan, 1993; Papageorgiou & Wells, 2000; Semple, Reid, & Miller, 2005; and Siegel et al., 2007). Adaptations to address interpersonal trauma-related cognitions and emotions were informed by the empirical literature and relevant treatment protocols developed for adults exposed to interpersonal trauma (e.g., Cecil & Matson, 2005; Cloitre et al., 2006; DePrince et al., 2010; Resick & Schnicke, 1996).

### Sessions 1–4

Sessions 1–4 focused on teaching key mindfulness skills in observing, describing, and participating (Linehan, 1993; Segal et al., 2002) in the context of depression while incorporating attention exercises from attention-control training approaches to depression (e.g., Siegel et al., 2007).

In Session 1, clients were introduced to mindfulness concepts, using the analogy of minds going on autopilot to capture a lack of mindfulness. In Session 1, both teens were receptive to the autopilot concept, as illustrated here in the therapist discussion with Maria:

THERAPIST: One of the things that we're going to start to work on is noticing when our mind goes on autopilot. And it sounds like you have a good idea when your mind goes on autopilot.

CLIENT: When it comes to thinking about myself... I can be positive with everyone else, except for myself. Like I can tell someone else, oh everything's going to be ok, but I tell myself, everything is wrong.

THERAPIST: What are the kind of things you tell yourself? ...

CLIENT: Just that I'm never going to change.

THERAPIST: That's a powerful thought — and if that's where your autopilot takes you — that's a powerful

thing to notice that's where you're going. If you notice where you're going, what happens?

CLIENT: It would be good

THERAPIST: What would make it good?

CLIENT: I'm doing good for myself, because if I know what I'm doing — if my mind is in control, then I know I can focus on something good.

THERAPIST: Seems like when you go on autopilot, you're on a self-attack — I can't, I won't, I never will...

CLIENT: Yeah.

THERAPIST: Noticing that, and being mindful is the first step — to just notice that that's happening. And it's hard to do that when we're depressed. You've been having problems with this for a long time, and making changes. It's going to be important for you to start noticing and building up your attention muscles. Your autopilot is pretty strong

CLIENT: YEAH!

This metaphor was then used throughout the treatment as a way of talking about key CBT concepts. For example, negative automatic thoughts were described as a form of autopilot. When the therapist introduced mood monitoring homework at the end of Session 1, the following exchange occurred with Maria:

THERAPIST: ... the first part is monitoring your mood ... so we can begin to build skills so you can make different choices. I'd like to see you get unstuck. What do you think?

CLIENT: I want it, but I don't want to do it. Because I think I can't change that.

THERAPIST: The thinking that “I won't change that” ... is that you or just your autopilot?

CLIENT: That's just my autopilot.

THERAPIST: Then all we have to do first is just notice.

With an emphasis on building executive function skills, exercises in the Mindfulness Module begin by focusing on monitoring external stimuli (e.g., sights, sounds); these exercises are therefore consistent with mindfulness interventions tested by Segal et al. (2002), as

well as attentional control training tested by Siegel et al. (2007) and Papageorgiou and Wells (2000). For example, clients were assigned in-session and homework exercises that involved activities such as directing attention (e.g., notice and count colors), using working memory (e.g., notice and count both colors and sounds), and inhibiting irrelevant stimuli to direct attention to relevant stimuli (e.g., mindfulness of breath exercise to focus on breath and ignore other stimuli). In session, the clients reported initial difficulty with even simple attention tasks, such as noticing and counting colors, without other thoughts distracting them. These challenges allowed the therapist and client to talk about attention processes as well as approach multiple executive function skills simultaneously (directing and shifting attention, inhibiting attention). Following one homework assignment in which Ana was to count colors in her room, Ana reported that the homework was initially frustrating, “but then—it was more of just looking around me and just noticing what was around me.”

Describing skills were developed using exercises from both Segal et al. (2002), as well as Semple et al.'s (2005) feasibility trial with children. Consistent with the original protocol, initial introduction and practice of mood monitoring was introduced in Session 1; this was designed to prepare clients for the more complex task of monitoring internal stimuli (including cognitions and emotions) in Sessions 4 through 9. Content related to behavioral activation and pleasant activities was adapted from the AMP protocol to appear in the first module as a means for illustrating the mindfulness concept of “participating” (Linehan, 1993). Instead of introducing pleasant activities with a focus only on getting the teen to engage in pleasant activities, the mCBT protocol focused on pleasant activities as a way to practice the mindfulness concept of participating in the moment. To introduce the participating concept, the therapist emphasized being here and now, versus autopilot, which often involves getting distracted by thoughts outside the present moment. Recognizing this potential to get pulled away from participating in the moment, Ana described:

CLIENT: Our soccer team is pretty bad, and we won a game, and I was in a pretty good mood, and then my sister started talking about everything that was going in the house, and everyone was all happy, but then I was all mad and everything. And really quiet. But I should've been happy, because we had just won a game.

THERAPIST: Yeah — your mind switched into autopilot. We want you to build those muscles so you can be where you really are.

*Sessions 5–7*

Sessions 5–7 retained AMP's original focus on identifying and responding to depressogenic, negative automatic thoughts (though AMP covered these concepts in Sessions 1–4). The approach to teaching and practicing these skills was modified to build on the mindfulness training in the first module. For example, noticing negative automatic thoughts (NATs) was introduced using mindfulness metaphors, such as brains on “autopilot.” Where CBT emphasizes doing something about NATs (e.g., challenging, restructuring), the current mindfulness-based approach focused on noticing NATs as a goal in and of itself, separate from how one might respond to those thoughts. Nonjudgmental describing skills, developed in Sessions 1–4, were then applied to describing NATs and their effect on emotions and behaviors. The cognitive restructuring component of the original manual was modified to integrate mindfulness perspectives. Specifically, the module now emphasizes accepting the presence of negative automatic thoughts (NATs) while learning strategies to address those thoughts (e.g., redirecting attention elsewhere; noticing thoughts and letting them pass). In the following exchange with Maria, the therapist emphasizes noticing the thought and then having choices of how to respond; simply noticing the thought is left as an option, in contrast to traditional CBT approaches that often emphasize challenging, countering, and/or restructuring thoughts:

CLIENT: I don't know, like, I'll think too much, like if I'm taking a test I'll think about other times I did bad, and worry about the rest of the school year, like how's it gonna go if I do bad. Am I going to get into a good college? And if I don't get into a good college, I won't be able to do what I want to do, so I can't get bad grades.

THERAPIST: That's the thing about negative automatic thoughts—they take you on a trip ... and you start spinning and spinning ... you try to chase those thoughts and then they scatter. So when you think about that happening, if you just notice they were happening, what would that be like for you?

CLIENT: I might keep digging myself deeper, and I'd just be there.

THERAPIST: If you noticed you were doing, do you think you'd dig yourself in as deep?

CLIENT: Well, probably not.

THERAPIST: Because it seems like it just happens. You're having a NAT, and you start your automatic pilot, and it just goes.

CLIENT: Yeah.

THERAPIST: If you noticed that, here I go again! You might have some different choices.

CLIENT: Yeah!

*Sessions 8–9*

In the original protocol, the focus was on general depressogenic thoughts; in Sessions 8 and 9 of the mCBT adaptation the focus shifted to interpersonal trauma-relevant thoughts in teaching about NATs and cognitive restructuring. Approaches to identifying interpersonal trauma-relevant thoughts were drawn from established protocols targeting interpersonal traumas in adults (e.g., Cloitre et al., 2006; Resick & Schnicke, 1996). We retained the AMP session on cognitive coping with “realistic” stresses (that do not necessarily involve cognitive distortions) in a format that capitalizes on mindfulness skills. This session, too, was adapted to emphasize interpersonal trauma-relevant situations and thoughts. In the following exchange with Maria, the therapist integrated discussion of coping thoughts into exploration of trauma-related negative automatic thoughts.

THERAPIST: Today I'm going to talk about trickier negative automatic thoughts ... A lot of times when people have had traumas, they feel [things like] shame, betrayal, fear...

[*Therapist and client use a questionnaire to identify relevant trauma-related thoughts/feelings.*]

THERAPIST: If, instead of having these, you had other thoughts, like, “I did the best I could,” how would that make you feel?

CLIENT: Maybe it wouldn't feel so bad, but I'd still feel a little bad. Because it didn't really matter, because it did.

THERAPIST: It did happen. And saying I did the best I could —

CLIENT: I don't know, like, maybe it would help a little bit, because maybe it would help me let it go.

THERAPIST: And when bad things have happened, it's not like we can make them go away, but we can talk to ourselves in a way that can sometimes make a difference. It can be helpful or not helpful. What happens with your mood and your thoughts if you told yourself, “I should've done something different”?

CLIENT: It would just be bad.



THERAPIST: What kind of things would you do?

CLIENT: I'd put myself down for something that doesn't matter anymore.

THERAPIST: And how'd you feel in your heart?

CLIENT: Bad.

THERAPIST: And what would you feel if instead you said, "I did the best that I could at the time"?

CLIENT: Um, that would help.

THERAPIST: What would happen to your mood and thoughts if that's what you said?

CLIENT: It would help me really not feel so down.

#### Sessions 10–11

Sessions 10 and 11 replaced the choice of “mini-modules” offered in the AMP manual, though retained the spirit of those modules in emphasizing the application of skills to interpersonal situations. This revised module addressed interpersonal trauma-related thoughts and emotions, as well as interpersonal issues in the teen's life, in the context of practicing the mindfulness skills learned earlier in the treatment. We adapted content from the AMP sessions on interpersonal relationships. For example, basic social skills (e.g., meeting people, starting a conversation, asking someone to do something with you) were recast in terms of mindfulness skills (e.g., mindfulness of yourself, the other person, and the situation). In Session 11, the therapist and Maria talk about mindfulness in the context of family relationships.

THERAPIST: Your feelings are very special, and your family is very connected... and of course you're all upset and sad. None of you have any control of this [illness in a family member], you can't do anything about it... You're not in control of that. But you are in control of your relationships to one another. And being mindful of that, and noticing hey: when I don't express my sad feelings, I just feel really mad. And when I get up getting mad, what happens in the family?

CLIENT: Other people get really mad too.

THERAPIST: And that's just you being mindful — that's you noticing, taking a step back. [*Client begins to cry.*] And part of being mindful of your family relationships, is being there for one another. Which is hard to do, when you have strong feelings about what's happening... What do you think?

CLIENT: I think it'd be better to... handle the situation better, if there's nothing I can do about it.

THERAPIST: What does that mean?

CLIENT: Like, in this case, there's nothing I can do about it, but try and help each other. When, like maybe, listening to one another. And when I can't fix what's going on, then maybe I can help by not getting really stressed.

THERAPIST: I think that's a great idea. How do you think you could do that — listening?

CLIENT: I don't know... just listening I guess.

THERAPIST: Yes... and listening in a mindful way. How do you think you can be listening in a mindful way — how's your body, and how's your mind when you're really there?

CLIENT: Not stressed, and trying to help understand what they're saying.

THERAPIST: And how can you show with your body that you're really listening?

CLIENT: Make eye contact. And face your body towards them. And not being distracted by other things.

THERAPIST: And when you're really listening, and focusing, what's happening in your mind?

CLIENT: Just like responding to what they're saying, without any mean thoughts.

As in the original AMP protocol, Session 12 focused on reviewing key treatment principles and progress in treatment. In addition, future planning and relapse prevention were discussed. During this final session, the client and therapist were reviewing homework when the following exchange occurred with Ana:

THERAPIST: On Saturday, you have a 7 [out of 10]. And usually in the past, when your mom has a bad day, what usually happens?

CLIENT: I have a bad day too.

THERAPIST: Yeah, but this time, you were mindful enough that she was having a bad day, but that her day didn't have to affect your mood. That's huge. That's you being mindful, and not being on autopilot. Are you impressed with yourself?

CLIENT: Yeah.

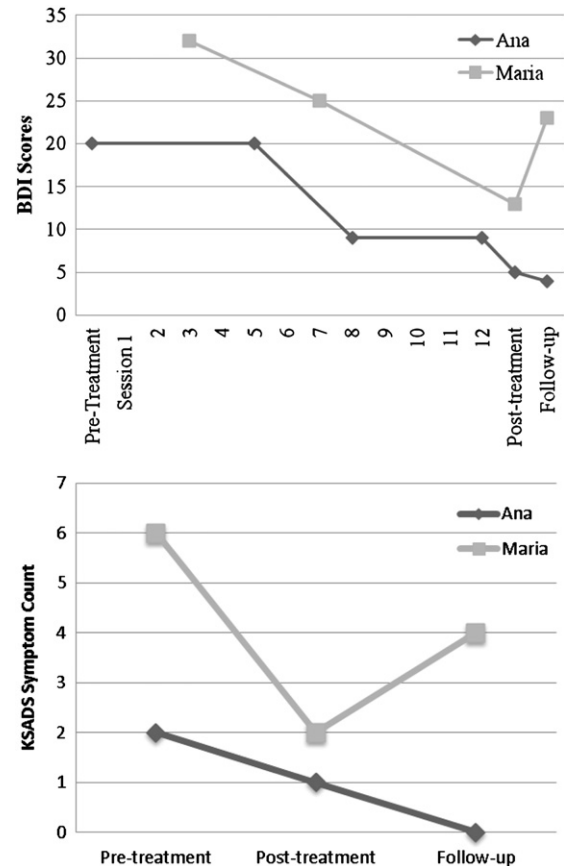
THERAPIST: Good, because I am too!

Also in the final session, the therapist asked the Maria to say how she would now describe mindfulness, to which she replied, "Mindfulness is a different way of interacting [with your] thoughts, and taking them out of autopilot." When asked specifically about mindfulness in relationships, covered in the previous two sessions, the client reported, "I learned that, like ... it helps the relationship with the other person ... the way you act in a relationship, it changes my mood. And the way I interact with the person."

### Results

Figure 1 illustrates BDI scores over time (top panel) as well as total depression symptoms that met threshold on the K-SADS-PL interview over time (bottom panel). Based on pretreatment K-SADS-PL interviews, Ana was diagnosed with depressive disorder not otherwise specified (DDNOS; duration 2 years) and Maria was diagnosed with MDD. In addition, Ana endorsed 8 PTSD symptoms on the KSADS. Due to time constraints at the initial assessment, BDI and PTSD symptoms are not available at pretreatment for Maria. Immediately posttreatment, neither Ana nor Maria met criteria for a depressive disorder per symptoms and impairment assessed by the K-SADS-PL interview. Further, the number of PTSD symptoms that Ana reported at threshold on the K-SADS-PL interview dropped to 2; Maria did not report any PTSD symptoms at threshold. At the 3-month follow-up assessment, Ana reported no depressive symptoms and Maria reported 5 symptoms at threshold on the K-SADS-PL interview.

Over the three assessments, Ana and Maria showed somewhat different patterns of change in their KSADS depression profiles. Ana's pattern of symptom change appeared to be consistent with a basic CBT model. Specifically, she showed reductions in mood symptoms (sadness and irritability) between pre- and posttreatment, which preceded decreases in sleep disturbance between posttreatment and follow-up. Maria's symptom change also reflected a well-known pattern; changes in hopelessness and feelings of worthlessness preceded changes in mood symptoms, a pattern referred to as "re-moralization" in the psychotherapy literature (Howard & Lueger, 1993). It is noteworthy that Maria did not show an increase in irritable mood between posttreatment and follow-up assessments, but rather showed an increase in sadness. Additional information about the context of Maria's life may be helpful in understanding this pattern. During the final treatment session, Maria reported to her therapist that a close relative had been diagnosed with a serious cancer and expressed concern about this news, particularly given her own history of cancer. At the follow-up interview, Maria reported that the



**Figure 1.** BDI scores across treatment, posttreatment, and follow-up (*top*) as well as number of KSADS depression symptoms at pretreatment, posttreatment, and follow-up assessments (*bottom*) for two pilot cases.

relative continued to be seriously ill and that her mood had been negatively affected by the illness, perhaps reflected by the increase in sadness.

### Discussion

We modified an existing treatment for adolescent depression after several studies suggested depressed teens who have experienced interpersonal trauma responded less well to standard CBT than peers without a trauma history. Based on a review of CBT protocols and evidence from developmental psychopathology, we modified the treatment to use mindfulness-based approaches (including attentional control training) to target attention processes and trauma-related schema about self and relationships. Initial data from two pilot participants exposed to domestic violence suggest that the modified intervention is promising. In particular, both teens showed notable declines in depressive symptoms as measured by the BDI and KSADS symptom count from pre/early treatment to posttreatment assessment. Ana maintained those gains at the follow-up. Maria showed an increase in both BDI and KSADS

symptoms at the follow-up; importantly, those increases were still below earlier measurements.

Maria indicated that she believed her decline in mood was related to significant stress as a result of a care-giving family member's advancing terminal illness. Given that Maria initially entered treatment following her own diagnosis of cancer (which was successfully treated), her increase in symptoms related to the serious illness of yet another family member is not surprising. Notably, despite the family stress, her depressive symptoms continue to be lower than at pretreatment and Session 3. This suggests that Maria held on to some gains in the face of significant stress. Her case, though, highlights the potential usefulness of booster sessions to help adolescents maintain and apply skills, particularly as new stressors emerge. Alternatively, it is possible that Maria's increase in symptoms reflects a failure to generalize what she learned in treatment or that gains are not maintained generally for the treatment, similar to at least one TF-CBT study (Cohen et al., 2005). These concerns should be seriously considered in future research, with studies that can follow youth over time to examine maintenance of gains systematically. Concerns about failure to generalize material being an inherent problem in the protocol would be greater if Ana, too, showed an increase in symptoms at follow-up; however, Ana maintained gains. Further, Maria continued to show improvements from pretreatment despite facing the terminal illness of a close family member. Thus, her increase in symptoms from posttreatment to follow-up assessment should be noted and considered in future research, but should not discount overall gains from pretreatment or gains made and maintained by Ana.

Importantly, both teens had received usual care therapy for approximately a year prior to receiving mCBT. Although the course of their depressive symptoms is not known, the fact that both initially entered therapy with elevated depressive symptoms and both continued to show symptom elevations when they initiated mCBT provides an informal extended baseline. In this context, the reduction in depressive symptoms over the course of mCBT is consistent with an intervention effect. Duration of depressive episodes as assessed by the K-SADS also points to persistent depressive symptoms prior to initiation of mCBT. However, it is also important to note that these adolescents were engaged in therapy over a year prior to the pilot study. Thus, these clients may differ from many adolescent clients in community clinics, over half of whom drop out by Session 6 (Gonzalez, Weersing, Warnick, Scahill, & Woolston, 2011). The successful completion of 12 sessions by the clients in these pilot cases also leaves open the question of how dose may affect symptom change for youth who are more typical of community clinic clients with regard to attending fewer sessions. Finally, the therapist nominated these clients for the pilot study from her current

caseload; thus, she may have selected clients amenable to this approach. Thus, as with any case studies, we cannot generalize from these two clients to clients in community clinics more generally.

It is worth noting that the mCBT approach to trauma-related cognitive content used in this protocol is quite different from the exposure-based approach of trauma-focused CBT (Cohen, Deblinger, Mannarino, & Steer, 2004). In particular, the current approach does not involve the construction of a trauma narrative, but rather focuses on residual beliefs about the self and relationships that have their roots in traumatic interpersonal experiences. Furthermore, in addition to typical cognitive restructuring procedures, the current approach utilizes acceptance-based strategies for dealing with trauma-related cognitions and emotions. Though not the focus of the current study, we did see changes in Ana's PTSD symptom reports over time. She initially reported 8 PTSD symptoms at pretreatment, but only 2 immediately posttreatment and only 1 at the 3-month follow-up assessment.

While these pilot data provide promising evidence for a modified CBT approach to working with depressed youth who have been exposed to interpersonal trauma, several limitations should be considered. First, we did not measure depression during the same sessions across the two clients; and we were missing a pretreatment BDI score for one client. Further, an extended pretreatment symptom baseline would strengthen causal inferences about intervention effects. Although we know that these adolescents presented with depressive symptoms nearly a year before mCBT initiation, the lack of an extended baseline means that we cannot rule out the effect of the passage of time. It also is noteworthy that both teens completed all 12 sessions of the treatment, an accomplishment that cannot be assumed in community clinic treatment. In spite of these limitations, these data suggest that further study of intervention targeting executive function deficits and trauma-related cognitions among depressed adolescents with interpersonal trauma histories is warranted. Future studies should also evaluate changes in hypothesized mediators (executive functioning and trauma-related schema) to identify the treatment's mechanisms of action.

## References

- Andrews, B., Brewin, C. R., Rose, S., & Kirk, M. (2000). Predicting PTSD symptoms in victims of violent crime: The role of shame, anger and childhood abuse. *Journal of Abnormal Psychology, 109*, 69–73. <http://dx.doi.org/10.1037/0021-843X.109.1.69>
- Barbe, R. P., Bridge, J. A., Birmaher, B., Kolko, D., & Brent, D. A. (2004). Lifetime history of sexual abuse, clinical presentation, and outcome in a clinical trial for adolescent depression. *Journal of Clinical Psychiatry, 65*, 77–83. <http://www.psychiatrist.com/>
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York, NY: Penguin.
- Beck, A. T., Steer, R. A., Ball, R., & Ranieri, W. F. (1996). Comparison of Beck Depression Inventories—IA and—II in psychiatric outpatients.

- Journal of Personality Assessment*, 67, 588–597. [http://dx.doi.org/10.1207/s15327752jpa6703\\_13](http://dx.doi.org/10.1207/s15327752jpa6703_13)
- Beck, A. T., & Young, J. E. (1985). Depression. In D. H. Barlow (Ed.), *Clinical handbook of psychological disorders: A step-by-step treatment manual* (pp. 206–244). New York, NY: Guilford Press.
- Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., . . . Devis, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11, 230–242. <http://dx.doi.org/10.1093/clipsy.bph077>
- Breitenbecher, K. H. (2006). The relationships among self-blame, psychological distress, and sexual victimization. *Journal of Interpersonal Violence*, 21, 597–611. <http://dx.doi.org/10.1177/0886260506286842>
- Brent, D., & Poling, K. (1997). *Cognitive therapy treatment manual for depressed and suicidal youth*. Pittsburgh, PA: University of Pittsburgh.
- Brown, J., Cohen, P., Johnson, J. G., & Smailes, E. M. (1999). Childhood abuse and neglect: Specificity and effects on adolescent and young adult depression and suicidality. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38, 1490–1496. <http://dx.doi.org/10.1097/00004583-199912000-00009>
- Cecil, H., & Matson, S. C. (2005). Differences in psychological health and family dysfunction by sexual victimization type in a clinical sample of African American adolescent women. *Journal of Sex Research*, 42, 203–214. <http://dx.doi.org/10.1080/00224490509552275>
- Cloitre, M., Cohen, L. R., & Koenen, K. C. (2006). *Treating survivors of childhood abuse: Psychotherapy for the interrupted life*. New York, NY: Guilford Press.
- Cohen, J. A., Deblinger, E., Mannarino, A. P., & Steer, R. A. (2004). A multisite randomized control trial for sexually abused children with PTSD symptoms. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43, 393–402. <http://dx.doi.org/10.1097/00004583-200404000-00005>
- Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2002). *Child and Parent Trauma-Focused Cognitive Behavioral Therapy Treatment Manual*. Unpublished manuscript.
- Cohen, J. A., Mannarino, A. P., & Knudsen, K. (2005). Treating sexually abused children: 1 year follow-up of a randomized controlled trial. *Child Abuse and Neglect*, 19, 135–145.
- Deblinger, E., Lippman, J., & Steer, R. (1996). Sexually abused children suffering posttraumatic stress symptoms: Initial treatment outcome findings. *Child Maltreatment*, 1, 310–321.
- Deblinger, E., Steer, R., & Lippman, J. (1999). Two-year follow-up study of cognitive-behavioral therapy for sexually abused children suffering posttraumatic stress symptoms. *Child Abuse & Neglect*, 23, 1371–1378.
- DePrince, A. P., Weinzierl, K. M., & Combs, M. D. (2009). Executive function performance and trauma exposure in a community sample of children. *Child Abuse and Neglect*, 33, 353–361. <http://dx.doi.org/10.1016/j.chiabu.2008.08.002>
- DePrince, A. P., Zurbriggen, E. L., Chu, A. T., & Smart, L. (2010). Development of the Trauma Appraisal Questionnaire. *Journal of Aggression, Maltreatment, & Trauma*, 19, 275–299. <http://dx.doi.org/10.1080/10926771003705072>
- El-Hage, W., Gaillard, P., Isingrini, M., & Belzung, C. (2006). Trauma-related deficits in working memory. *Cognitive Neuropsychiatry*, 11, 33–46. <http://dx.doi.org/10.1080/13546800444000164>
- Gonzalez, A., Weersing, V. V., Warnick, E. M., Scahill, L. D., & Woolston, J. L. (2011). Predictors of treatment attrition among an outpatient clinic sample of youths with clinically significant anxiety. *Administration and Policy in Mental Health and Mental Health Services Research*, 38, 356–367. <http://dx.doi.org/10.1007/s10488-010-0323-y>
- Howard, K. I., & Lueger, R. J. (1993). A phase model of psychotherapy outcome: Causal mediation of change. *Journal of Consulting & Clinical Psychology*, 61(4), 678.
- Kabat-Zinn, J. (1990). *Full catastrophe living*. New York, NY: Dell.
- Kaplow, J. B., & Widom, C. S. (2007). Age of onset of child maltreatment predicts long-term mental health outcomes. *Journal of Abnormal Psychology*, 116, 176–187. <http://dx.doi.org/10.1037/0021-843X.116.1.176>
- Kaufman, J., Birmaher, B., Brent, D., Rao, U., Flynn, C., Moreci, P., Williamson, D., & Ryan, N. (1997). Schedule for Affective Disorders and Schizophrenia for school-aged children-Present and Lifetime Version (K-SADS-PL): Initial reliability and validity data. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 980–988.
- Kendler, K. S., Gardner, C. O., & Prescott, C. P. (2002). Toward a comprehensive developmental model of major depression in women. *American Journal of Psychiatry*, 159, 1133–1145. <http://dx.doi.org/10.1176/appi.ajp.159.7.1133>
- Kendler, K. S., Kuhn, J. W., Prescott, C. P. (2004). Childhood sexual abuse, stressful life events and risk for major depression in women. *Psychological Medicine*, 34, 1475–1482. <http://dx.doi.org/10.1017/S003329170400265X>
- Klein, J. B., Jacobs, R. H., & Reinecke, M. A. (2007). Cognitive-behavioral therapy for adolescent depression: A meta-analytic investigation of changes in effect-size estimates. *Journal of the American Academy of Child & Adolescent Psychiatry*, 46, 1403–1413. <http://dx.doi.org/10.1097/chi.0b013e3180592aaa>
- Kyte, Z. A., Goodyer, I. M., Sahakian, B. J. (2005). Selected executive skills in adolescents with recent first episode major depression. *Journal of Child Psychology and Psychiatry*, 46, 995–1005. <http://dx.doi.org/10.1111/j.1469-7610.2004.00400.x>
- Lau, A. S., & Weisz, J. R. (2003). Reported maltreatment among clinic-referred children: Implications for parenting problems, treatment attrition, and long-term outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 1327–1324. <http://dx.doi.org/10.1097/01.CHI.0000085754.71002.14>
- Lewis, C. C., Simons, A. D., Nguyen, L. J., Murakami, J. L., Reid, M. W., Silva, S. G., & March, J. S. (2010). Impact of childhood trauma on treatment outcome in the Treatment for Adolescents with Depression Study (TADS). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49, 132–140. <http://dx.doi.org/10.1097/00004583-201002000-00007>
- Linehan, M. M. (1993). *Skills Training Manual for Treating Borderline Personality Disorder*. New York, NY: Guilford Press.
- Ma, S. H., & Teasdale, J. D. (2004). Mindfulness-based cognitive therapy for depression: Replication and exploration of differential relapse prevention effects. *Journal of Consulting and Clinical Psychology*, 72, 31–40. <http://dx.doi.org/10.1037/0022-006X.72.1.31>
- Mohlman, J., & Gorman, J. M. (2005). The role of executive functioning in CBT: A pilot study with anxious older adults. *Behaviour Research and Therapy*, 43, 447–465. <http://dx.doi.org/10.1016/j.brat.2004.03.007>
- Muñoz, R. F., Aguilar-Gaxiola, S. A., & Guzmán, J. (1986). *Manual de terapia de grupo para el tratamiento cognitivo-conductual de depresión*. [Group therapy for cognitive-behavioral treatment of depression]. San Francisco: San Francisco General Hospital Depression Clinic.
- Paelecke-Habermann, Y., Pohl, J., & Leprow, B. (2005). Attention and executive functions in remitted major depression patients. *Journal of Affective Disorders*, 89, 125–135. <http://dx.doi.org/10.1016/j.jad.2005.09.006>
- Papageorgiou, C., & Wells, A. (2000). Treatment of recurrent major depression with attention training. *Cognitive and Behavioral Practice*, 7, 407–413. [http://dx.doi.org/10.1016/S1077-7229\(00\)80051-6](http://dx.doi.org/10.1016/S1077-7229(00)80051-6)
- Resick, P. A., & Schnicke, M. K. (1996). *Cognitive processing therapy for rape victims*. New York: Sage.
- Rogers, M. A., Kasai, K., Koji, M., Fukuda, R., Iwanami, A., Nakagome, K., Fukuda, M., Kato, N. (2004). Executive and prefrontal dysfunction in unipolar depression: A review of neuropsychological and imagining evidence. *Neuroscience Research*, 50, 1–11. <http://dx.doi.org/10.1016/j.neures.2004.05.003>
- Rose, E. J., & Ebmeier, K. P. (2006). Pattern of impaired working memory during major depression. *Journal of Affective Disorders*, 90, 149–161. <http://dx.doi.org/10.1016/j.jad.2005.11.003>
- Rossello, J., & Bernal, G. (1999). The efficacy of cognitive-behavioral and interpersonal treatments for depression in Puerto Rican adolescents. *Journal of Consulting and Clinical Psychology*, 67, 734–745. <http://dx.doi.org/10.1037/0022-006X.67.5.734>
- Schraedley, P. K., Gotlib, I. H., & Hayward, C. (1999). Gender differences in correlates of depressive symptoms in adolescents. *Journal of Adolescent Health*, 25, 98–108. [http://dx.doi.org/10.1016/S1054-139X\(99\)00038-5](http://dx.doi.org/10.1016/S1054-139X(99)00038-5)
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. G. (2002). *Mindfulness-based cognitive therapy for depression: A new approach to relapse prevention*. New York, NY: Guilford Press.
- Semple, R. J., Reid, E. F. G., & Miller, L. (2005). Treating anxiety with mindfulness: An open trial of mindfulness training for

- anxious children. *Journal of Cognitive Psychotherapy*, 19, 379–392. <http://dx.doi.org/10.1891/jcop.2005.19.4.379>
- Shamseddeen, W., Asarnow, J. R., Clarke, G., Vitiello, B., Wagner, K. D., Birmaher, B., . . . Brent, D. A. (2011). Impact of physical and sexual abuse on treatment response in the Treatment of Resistant Depression in Adolescent study (TORDIA). *Journal of American Academy Child and Adolescent Psychiatry*, 50, 293–301. <http://dx.doi.org/10.1016/j.jaac.2010.11.019>
- Shirk, S. R., Kaplinski, H., & Gudmundsen, G. (2009). School-based cognitive-behavioral therapy for adolescent depression: A benchmarking study. *Journal of Emotional and Behavioral Disorders*, 17, 106–1170. <http://dx.doi.org/10.1177/1063426608326202>
- Siegle, G., Ghinassi, F., & Thase, M. E. (2007). Neurobehavioral therapies in the 21st century: Summary of an emerging field and an extended example of cognitive control training for depression. *Cognitive Therapy and Research*, 31, 235–262. <http://dx.doi.org/10.1007/s10608-006-9118-6>
- Stein, M. B., Kennedy, C. M., & Twamley, E. W. (2002). Neuropsychological function in female victims of intimate partner violence with and without posttraumatic stress disorder. *Biological Psychiatry*, 52, 1079–1088. [http://dx.doi.org/10.1016/S0006-3223\(02\)01414-2](http://dx.doi.org/10.1016/S0006-3223(02)01414-2)
- Sternberg, K. J., Lamb, M. E., Greenbaum, C., & Cicchetti, D. (1993). Effects of domestic violence on children's behavior problems and depression. *Developmental Psychology*, 29, 44–52. <http://dx.doi.org/10.1037/0012-1649.29.1.44>
- Teasdale, J. D., Segal, Z. V., Williams, J. M. G., Ridgeway, V. A., Soulsby, J. M., & Lau, M. A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology*, 68, 615–623. <http://dx.doi.org/10.1037/0022-006X.68.4.615>
- Weersing, V., Rozenman, M., & Gonzalez, A. (2009). Core components of therapy in youth: Do we know what to disseminate? *Behavior Modification*, 33, 24–47. <http://dx.doi.org/10.1177/0145445508322629>
- Weisz, J. R., Jensen, A. J., & McLeod, B. D. (2004). Development and dissemination of child and adolescent psychotherapies: Milestones, methods, and a new deployment-focused model. In E. Hibbs & P. Jensen (Eds.), *Psychosocial treatment for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 9–39). Washington, DC: American Psychological Association Press.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. New York, NY: Guilford Press.

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Address correspondence to Anne P. DePrince, Ph.D., Department of Psychology, 2155 S Race Street, Denver, CO 80208; e-mail: [adeprinc@du.edu](mailto:adeprinc@du.edu).

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