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A Pilot Study of a Cognitive Restructuring Program for Treating Posttraumatic Disorders in Adolescents

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The study explored the feasibility and efficacy of a manualized cognitive restructuring program for treating adolescents suffering from posttraumatic stress disorder (PTSD). Nine girls and 3 boys (mean age 16 years; range = 14–18), with PTSD, were recruited from a community mental health center and a tertiary health care center and enrolled in a pilot study. The adolescents were seen weekly for 12–16 weeks of individual treatment. Variables assessed included: trauma history, PTSD diagnosis and severity, depression, substance abuse, and client satisfaction. Twelve adolescents consented to treatment; 9 completed the program. The number of types of traumas reported averaged 6.5 (range = 1–13). Paired *t* tests were used to test prepost change for PTSD symptoms and depression, in completers. From baseline to posttreatment, there were statistically significant improvements in PTSD and depression. Treatment gains were maintained at 3 month follow-up. Preliminary results suggest the feasibility of implementing a manualized cognitive restructuring program to treat PTSD in adolescents. Completers rated themselves as improved and satisfied at posttreatment and 3-month follow-up. Feedback from referring clinicians also indicated high satisfaction.

Keywords: adolescents, PTSD treatment, trauma, cognitive restructuring

Children are at elevated risk for criminal victimization, including rape, robbery, and aggravated assault (Finkelhor, 2008). Adolescents are particularly at risk, reporting the highest rates of violent victimization of any age group (Bureau of Justice Statistics, 2005). This increased trauma exposure affects children and youth not only in urban, but also in suburban and rural areas as well (Finkelhor, 2008). Across studies, rates of self-reported trauma exposure among adolescents range from 16% (Cuffe et al., 1998) to more than 80% (Elklit, 2002), with most studies reporting trauma exposure rates of ~40% among youth (Boney-McCoy & Finkelhor, 1995; Copeland, Keeler, Angold, & Costello, 2007; Giaconia et al., 1995). Commonly reported traumas include serious physical assault, sexual assault and witnessing interpersonal violence.

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Female gender, living situation, socioeconomic status, geographic place of residence, and service sector are all related to risk level in adolescents (Breslau et al., 1991; Buka, Stichick, Birdthistle, & Earls, 2001; Costello, Erkanli, Fairbank, & Angold, 2002; Elklit, 2002). Youth suffering chronic poverty, those in the juvenile justice system, as well as youth living in out of home placement or hospitalized for mental or behavioral problems have a higher risk for being traumatized. Trauma exposure is also associated with substance abuse, delinquent behaviors, and self-injurious behaviors (Downs & Harrison, 1998; Roberts & Klein, 2003; Wright, Friedrich, Cinq-Mars, Cyr, & McDuff, 2004). In a review paper, Mulvihill notes that childhood trauma has both short and long-term impacts on physical and psychological health (Mulvihill, 2005).

These high rates of adolescent violence exposure are associated with posttraumatic stress disorder (PTSD) and related mental health problems. The largest survey to date reported current PTSD related to victimization of 6.3% for girls and 3.7% for boys (Kilpatrick et al., 2003). Other adolescent surveys found lifetime PTSD estimates of about 9%, with girls having higher prevalence than boys (Breslau et al., 1991; Elklit, 2002). Special populations such as homeless adolescents, substance abusing teens, delinquent and incarcerated youth, psychiatric inpatients, immigrant children, and children with severe emotional disturbance also have higher rates of PTSD (Abram et al., 2004; Jaycox et al., 2002; Mueser & Taub, 2008; Seng, Graham-Bermann, Clark, McCarthy, & Ronis, 2005). The available literature suggests that children and adolescents exposed to physical or sexual abuse exhibit rates of PTSD of between 14.5 and 48% (McLeer, Deblinger, Henry, & Orvaschel,

1992). Adolescents with PTSD are also likely to meet criteria for other psychiatric disorders including depressive disorders, externalizing disorders, and substance use disorders (Kilpatrick et al., 2003).

Effective treatments for PTSD would ideally address symptoms of PTSD, and also help to address the most common comorbidities found in youth exposed to trauma. The best supported interventions for PTSD symptoms in children, and those with the largest treatment effects, are well delineated, theoretically based cognitive–behavioral (CBT) approaches (American Academy of Child & Adolescent Psychiatry, 1998; Foa, Keane, Friedman, & Cohen, 2008). However, the empirical support for these treatments in adolescents is more limited (Cohen, Mannarino, Deblinger, & Berliner, 2008). The most rigorously researched individual CBT based treatment for traumatized children, Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) has been tested primarily in younger children and primarily with survivors of sexual abuse. Multiple randomized controlled trials have been conducted using TF-CBT, but only one of these included adolescents over the age of 14. This study of sexually abused children compared child alone CBT, family CBT and wait-list controls (King et al., 2002). Children who received treatment were less symptomatic than controls at posttreatment with respect to PTSD symptoms and self reports of fear and anxiety. Improvement was maintained at a 3-month follow-up. The involvement of parents did not improve clinical outcomes.

This last finding, as well as the chaotic nature of the family environments of many traumatized adolescents, influenced our decision to develop an intervention that did not require an integrated family treatment component. Although there can be benefits to parental involvement in the treatment of adolescents, there is clearly a need for interventions that can be provided to youth with limited parental supports. Parents or guardians are sometimes perpetrators of abuse, and are therefore not appropriate for inclusion. In many instances, parents or guardians are simply not available or willing to attend weekly therapy.

In this paper, we describe the results from a pilot study conducted with a community population of adolescents with PTSD enrolled in a program of individual cognitive–behavioral treatment. The program used in the study, the CBT for PTSD in Adolescents Program, is standardized in a manual: *Cognitive Behavioral Therapy for PTSD in Adolescents*, and a workbook tailored specifically for adolescents entitled: *The Coping with Stress Handbook* (Dartmouth Trauma Interventions Research Center, 2006; Jankowski, Rosenberg, Mueser, Rosenberg, & Hamblen, 2005). Both manual and workbook were adapted from those created for our adult CBT for PTSD program (Mueser, Jankowski, Hamblen, & Rosenberg, 2003). This adult program was tested in a randomized controlled study of adults with severe mental illness and comorbid PTSD (Mueser et al., 2008). (For further information about the manuals and workbook, please contact the first author.)

The adolescent treatment program incorporates cognitive restructuring as the primary therapeutic component. In the adult literature on treatment of PTSD, both cognitive restructuring and exposure therapy have strong empirical support. Trauma-Focused CBT, the most widely replicated treatment for children and adolescents, emphasizes exposure through creation of a trauma narrative (Cohen, Mannarino, & Deblinger, 2006). While efficacious for many who complete treatment, researchers and clinicians have noted that use of exposure can increase the difficulty in recruiting and retaining clients in treatment (Pitman et al., 1991; Tarrier et al., 1999; Zayfert & Becker, 2000). These concerns likely reflect both: (1) client stress associated with exposure (and anticipatory anxiety associated with the prospect of exposure), and (2) hesitation on the part of clinicians lacking experience in exposure therapy. Adolescents as a group are known to be particularly challenging in regard to engagement and retention in any mental health treatment, and we did not wish to add this barrier to client participation. Another factor in our decision to emphasize cognitive restructuring as the primary therapeutic component is that many adolescents continue to live in situations where they are in ongoing danger of witnessing and experiencing new traumas and retraumatization. Although every effort was made to ensure they were in a safe environment, ongoing exposure to community and other environmental stressors was a reality for many adolescents in our study, and exposure-based interventions are contraindicated for people with ongoing trauma.

We chose to fully manualize our treatment to increase its utility and potential for dissemination to a range of providers with various levels of expertise in treating PTSD. In the real world venues where adolescents are likely to appear for trauma treatment (schools, community health clinics and outreach centers, public mental health agencies), there are many clinicians without well developed skills in using CBT. Our program is time-limited, uses simplified language and concepts, and is flexible enough to allow for considerable variability in the cognitive level of the participants.

Method

The pilot study was conducted at a community mental health center (9 clients) and a tertiary medical center clinic (3 clients) in rural New Hampshire. Inclusion/exclusion criteria for participation were: (1) current *DSM–IV* diagnosis of PTSD; (2) no active suicidality or homicidality; (3) no psychiatric hospitalization within the past 3 months; (4) no substance dependence; and (5) parent or guardian willing to give consent and adolescent willing to provide assent for the study. Nine girls and 3 boys, with a mean age of 16 years (range: 14–18) participated in the study. Ten were White, 1 Hispanic, 1 Native American, and all were enrolled in school (9–12 grades). Living situations varied from foster or adoptive placements to families of origin with both biological parents in residence or blended families with multigenerational components, nonrelated adults and biological and nonbiological siblings. The adolescents were evaluated for study eligibility with the measures described below. Therapists were licensed providers experienced in both CBT and treatment of posttraumatic disorders. Each study therapist also had previous training using our manualized CBT treatment for adults with trauma and PTSD. Sessions were reviewed in weekly group supervision. Clients enrolled from both sites were receiving other clinical services in addition to the PTSD treatment, including medication management, case management or other nontrauma focused therapy.

Assessments

Participants were assessed pretreatment, posttreatment, and at 3 month follow-up by an independent evaluator. Clients were paid

for their participation in each assessment. Traumatic life events were assessed before treatment using the Traumatic Life Events Questionnaire (TLEQ) (Kubany et al., 2000). PTSD, the primary outcome variable, was assessed with the Child Posttraumatic Symptom Scale (CPSS), which has shown good reliability and validity with children and adolescents (Foa, Johnson, Feeny, & Treadwell, 2001). The CPSS assesses the A1 and A2 criteria, symptomatic criteria, and impairment in function. It was administered in interview format pre-, posttreatment, and 3 month follow-up. Depression was assessed with the Beck Depression Inventory (BDI-II) (Beck, Steer, & Brown, 1996). A 3 question client satisfaction/condition survey was administered posttreatment and at 3 month follow-up (Elkin, Parloff, Hadley, & Autry, 1985).

Procedure

Referrals were obtained from community providers who were informed about the study. Following initial referral to the study, a member of the research team met with the adolescent and his or her parent or guardian (either together or separately) to describe the program and assessments, and, if interested, obtain written informed consent (parent) or assent (adolescent). The wording of the consent and assent forms made it clear that clinicians were required to report abuse, neglect or indications of intention to harm self or others. However, adolescents were also told that the clinician would not reveal any other content of the therapy sessions to parents or guardians before talking first about the issues with them. Local Institutional Review Boards approved all procedures.

Treatment

The CBT for PTSD in Adolescents Program consists of 8 modules, delivered over 12–16 one hour weekly sessions and provides specific aids such as: scripts, detailed handouts and worksheets, and a troubleshooting guide for conducting cognitive restructuring. Language and format make the program user-friendly for clinicians as well as for adolescents. Table 1 shows the sequence of the modules, approximate time for teaching the content and the recommended pacing of the sessions.

The primary components of the therapy include: education about the core symptoms of PTSD and related problems; relaxation breathing, an anxiety management technique; and cognitive restructuring. The majority of the sessions focus on the teaching of cognitive restructuring as a tool for self-management and as a skill that adolescents can "own." Cognitive restructuring helps clients identify problematic thoughts and beliefs related to their traumatic experiences, evaluate their accuracy, and develop new, more helpful and realistic beliefs and action plans. The therapist presents him or herself as a "coach," and this approach emphasizes the transferability of coping skills to outside the therapy session and into the daily lives of adolescents. Adolescents are never instructed to do "homework," but rather asked to "practice" cognitive restructuring skills to solidify learning. Clinicians avoid offering advice, but rather encourage adolescents to identify solutions to their problems themselves and think through the pros and cons of certain thoughts, decisions and behaviors. These therapeutic elements are supported by research findings on recruitment, retention, and efficacy of adolescent treatment supports (Oetzel & Scherer, 2003). The final module involves generalization training and termination, intended to solidify skill acquisition.

Table 1
Cognitive Behavioral Therapy for PTSD In Adolescents: Program Modules, Approximate Time, Course of Treatment by Session

Module number	Approximate time	Session[a]
1. Introduction	15–20 min	1
2. Safety plan	15–20 min	1
3. Relaxation breathing	15–20 min	1
4. Education Part I	1 hr	2
Common reactions to trauma: PTSD symptoms		
5. Education Part II	1 hr	3
Common reactions to trauma: associated symptoms		
6. Cognitive Restructuring I	8–12 hr	4–7 and to end of treatment
Thoughts, feelings, and common styles of thinking		
7. Cognitive Restructuring II	8–12 hr	4–7 and to end of treatment
The 5 steps of CR: describing the situation, feelings, thoughts, challenging the thoughts, taking action		
8. Generalization training and termination	2–4 hr	10-end of treatment

Note. [a] Pacing is flexible. For example, Cognitive Restructuring Parts I and II are usually taught in sessions 4–7 and practiced and reinforced through end of treatment.

Although the program does not require parental involvement, where possible, we offered an enhanced introduction to the study treatment for parents or guardians and attempted to assure their active support for their child's participation. We also encouraged a later conjoint session with the parent, guardian (or other supportive adult identified by the adolescent). In this conjoint session, the adolescent teaches the supportive adult the skill of cognitive restructuring. This proved helpful both to reinforce the skills for the adolescent and as an opportunity for sustaining the treatment gains post termination of therapy.

Statistical Analysis

Our primary hypothesis was that the treatment would result in improvements in PTSD symptoms and our secondary hypothesis was that improvements would occur in comorbid depressive symptoms. Paired *t* tests were used to examine change in PTSD symptom severity and depression across the three measurement intervals, pretreatment, end of treatment, and 3 months posttreatment. To assess change in current PTSD diagnosis (PTSD vs. no PTSD) from baseline to each of the posttreatment time points, McNemar tests were conducted.

Results

Nine of the 12 adolescents who consented completed the entire PTSD treatment program. One participant never began treatment because of transportation barriers; one dropped out after Session 4 for unknown reasons; and the third dropped out because of mul-

tiple handicaps and stressors, including psychotic symptoms and medical problems. While he completed 5 sessions, he finally decided not to continue treatment, citing too much stress. Several months later, the client's school counselor recontacted the therapist to inquire about reentering the program.

Participants reported a mean of 6.5 traumas (out of a possible 16), with a range from 1 to 13 reported traumas. Commonly reported traumas included: witnessing the sudden death of a close friend or loved one; being badly hurt by a parent, teacher or caretaker; seeing or hearing family fighting; being beaten up by a friend or acquaintance; and being the victim of child sexual abuse. The index traumas cited as most upsetting and symptom related by the participants were: sexual abuse (4 females); physical abuse (2 females, 2 males); sudden death of father by suicide (1 female, 1 male) and witnessing domestic violence (2 females).

As can be seen in Table 2, there were statistically significant improvements in both PTSD symptoms, $t(8) = 8.81^{**}$, $p < .005$ and depression, $t(8) = 6.38^{**}$, $p < .005$ from baseline to posttreatment. Treatment gains were not only maintained at the 3 month follow-up for both PTSD, $t(7) = 10.32$, $p < .005$ symptoms and depression, $t(7) = 6.08$, $p < .005$, but were somewhat (but not statistically significantly) stronger. Depressive symptoms improved substantially for each individual participant. Average BDI-II scores moved from the severe depression range at baseline to the mild depression range at posttreatment and to the minimal range at follow-up.

With respect to changes in PTSD diagnosis, at baseline all 12 adolescents had PTSD (100%), whereas at posttreatment 5/9 (56%) clients met criteria for PTSD, and at the 3-month follow-up 2/8 (25%) met PTSD criteria. The McNemar test was not significant for the baseline to posttreatment comparison, but was significant for the baseline to 3-month follow-up comparison ($p = .03$). On the client satisfaction/condition measure, all completers rated themselves as improved, with improvement seen as related to treatment, and as very satisfied both at posttreatment and follow-up.

Adolescents who participated in the CBT for PTSD program reported significant reductions in the frequency and intensity of PTSD symptoms from pretreatment to the posttreatment and follow-up assessments. Similar to other studies examining use of CBT for PTSD in both adult and younger child populations, participants in the pilot study exhibited reductions in depressive symptoms over treatment and at follow-up (Cohen, Deblinger, Mannarino, & Steer, 2004). In addition to the clinical improvements in symptoms, the rate of retention of adolescents in the treatment program was high, with 9 out of 11 clients (82%) who attended the first therapy session completing the treatment.

The overall pattern of changes in levels of PTSD and depression indicated increased improvement from end of treatment to the 3-month follow-up assessment. This pattern was strongest for current PTSD diagnosis, for which the reduction from 100% at baseline to 56% at posttreatment was not statistically significant, whereas the reduction from baseline to 25% at the 3-month follow-up was significant.

Discussion

The changes in PTSD and depression symptoms in our pilot study should be viewed with caution because of the small sample size, lack of ethnic diversity, lack of a control condition, and adjunctive use of medication and clinical services. However, results to date are encouraging regarding the feasibility and effectiveness of implementing a CBT treatment that emphasizes cognitive restructuring to treat PTSD in adolescent populations. Our emphasis on the teaching of cognitive skills that can be applied both to reducing posttraumatic symptoms and to managing stressful life events and unpleasant emotions appeared to facilitate engagement, retention and produce positive outcomes for our study subjects. At 3-month follow-up, treatment gains appeared to endure or even increase. Among the participants having completed treatment, reported satisfaction was high, and feedback from referring clinicians was positive.

Although parents were involved in this treatment on a limited basis, their participation was not nearly as extensive as other child trauma treatment programs recommend or require. Many family units eligible for our pilot study were extremely unstable (e.g., changing caregivers, multiple moves within the course of treatment) and frequently parents or caregivers also suffered from psychiatric disorders and had trauma histories. These factors, as well as economic and geographic factors (difficulty for parents getting time off work; cost of traveling to the school or clinic) proved impediments to parental participation. In some cases, a requirement for parental participation was seen as an insurmountable barrier to the adolescent entering treatment. However, for traumatized adolescents from relatively well functioning families, we might expect that a more structured component involving parents in our treatment program would result in an increase in positive outcome (Armbruster & Kazdin, 1994).

Adolescents pose significant challenges in regard to participation in all forms of psychotherapy, including trauma treatment. Results of this pilot provide some preliminary evidence of success in engaging and retaining adolescents, as well as some evidence of effectiveness in symptom reduction. We have begun to address the

Table 2
Pre- to Posttreatment and Follow-Up Outcomes

	Pretreatment		Posttreatment		3 month follow-up	
Measures	*M*	*SD*	*M*	*SD*	*M*	*SD*
PTSD symptoms (CPSS)[a]	29.56	2.96	12.56**	6.77	9.00**	7.78
Depression (BDI-II)[b]	29.33	11.93	12.78**	11.16	5.13**	4.70

Note. [a] CPSS = Child PTSD Symptom Scale; [b] BDI-II = Beck Depression Inventory.
** $p < .005$.

limitations of our study (small sample; rural setting, brief follow-up period) by planning a second study with a larger sample, using the CBT for PTSD in Adolescents Program in an urban, multicultural adolescent population.

References

Abram, K. M., Teplin, L. A., Charles, D. R., Longworth, S. L., McClelland, G. M., & Dulcan, M. K. (2004). Posttraumatic stress disorder and trauma in youth in juvenile detention. *Archives of General Psychiatry, 61,* 403–410.

American Academy of Child and Adolescent Psychiatry. (1998). Summary of the practice parameters for the assessment and treatment of children and adolescents with posttraumatic stress disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 37,* 997–1001.

Armbruster, P., & Kazdin, A. E. (1994). Attrition in child psychotherapy. *Advances in Clinical Psychology, 16,* 81–108.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the Beck Depression Inventory-II.* San Antonio, TX: Psychological Corporation.

Boney-McCoy, S., & Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. *Journal of Consulting and Clinical Psychology, 63,* 726–736.

Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry, 48,* 216–222.

Buka, S. L., Stichick, T. L., Birdthistle, I., & Earls, F. J. (2001). Youth exposure to violence: Prevalence, risks and consequences. *American Journal of Orthopsychiatry, 71, 298*–310.

Bureau of Justice Statistics. (2005). *Age patterns in violent victimization,* 1973–2005. Washington, DC.

Cohen, J. A., Deblinger, E., Mannarino, A. P., & Steer, R. A. (2004). A multisite, randomized controlled trial for children with sexual abuse-related PTSD symptoms. *Journal of the American Academy of Child & Adolescent Psychiatry, 43,* 393–402.

Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2006). *Treating trauma and traumatic grief in children and adolescents.* New York: Guilford Press.

Cohen, J. A., Mannarino, A. P., Deblinger, E., & Berliner, L. (2008). Cognitive-behavioral therapy for children and adolescents. In E. B. Foa, T. M. Keane, M. J. Friedman, & J. A. Cohen (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (2nd ed., pp. 223–244). New York: The Guilford Press.

Copeland, W. E., Keeler, G., Angold, A., & Costello, E. J. (2007). Traumatic events and posttraumatic stress in childhood. *Archives of General Psychiatry, 64,* 577–584.

Costello, E. J., Erkanli, A., Fairbank, J. A., & Angold, A. (2002). The prevalence of potentially traumatic events in childhood and adolescence. *Journal of Traumatic Stress, 15,* 99–112.

Cuffe, S. P., Addy, C. L., Garrison, C. Z., Waller, J. L., Jackson, K. L., McKeown, R. E., & Chilappagari, S. (1998). Prevalence of PTSD in a community sample of older adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 37,* 147–154.

Dartmouth Trauma Interventions Research Center. (2006). *The coping with stress handbook*. Unpublished handbook.

Downs, W. R., & Harrison, L. (1998). Childhood maltreatment and the risk of substance problems in later life. *Health and Social Care in the Community, 6,* 35–48.

Elkin, I., Parloff, M. B., Hadley, S. W., & Autry, J. H. (1985). NIMH Treatment of Depression Collaborative Research Program. Background and research plan. *Archives of General Psychiatry, 42,* 305–316.

Elklit, A. (2002). Victimization and PTSD in a Danish national youth probability sample. *Journal of the American Academy of Child & Adolescent Psychiatry, 41,* 174–181.

Finkelhor, D. (2008). *Childhood victimization: Violence, crime, and abuse in the lives of young people.* New York: Oxford University Press.

Foa, E. B., Johnson, K. M., Feeny, N. C., & Treadwell, K. R. H. (2001). The Child PTSD Symptom Scale: A preliminary examination of its psychometric properties. *Journal of Clinical Child Psychology, 30,* 376–384.

Foa, E. B., Keane, T. M., Friedman, M. J., & Cohen, J. A. (Eds.). (2008). *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (2nd ed.). New York: The Guilford Press.

Giaconia, R. M., Reinherz, H. Z., Silverman, A. B., Pakiz, B., Frost, A. K., & Cohen, E. (1995). Traumas and posttraumatic stress disorder in a community population of older adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry, 34,* 1369–1380.

Jankowski, M. K., Rosenberg, H. J., Mueser, K. T., Rosenberg, S. D., & Hamblen, J. L. (2005). *Cognitive behavioral therapy for PTSD in adolescents*. Unpublished manual.

Jaycox, L. H., Stein, B. D., Kataoka, S. H., Wong, M., Fink, A., Escudero, P. . . . Zaragoza, C. (2002). Violence exposure, posttraumatic stress disorder, and depressive symptoms among recent immigrant schoolchildren. *Journal of the American Academy of Child & Adolescent Psychiatry, 41,* 1104–1110.

Kilpatrick, D. G., Ruggiero, K. J., Acierno, R., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the National Survey of Adolescents. *Journal of Consulting and Clinical Psychology, 71,* 692–700.

King, N. J., Tonge, B. J., Mullen, P., Myerson, N., Heyne, D., Rollings, S. . . . Ollendick, T. H. (2002). Treating sexually abused children with posttraumatic stress symptoms: A randomized clinical trial. *Journal of the American Academy of Child and Adolescent Psychiatry, 39,* 1347–1355.

Kubany, E. S., Haynes, S. N., Leisen, M. B., Owens, J. A., Kaplan, A. S., Watson, S. B., & Burns, K. (2000). Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. *Psychological Assessment, 12,* 210–224.

McLeer, S. V., Deblinger, E., Henry, D., & Orvaschel, H. (1992). Sexually abused children at high risk for post-traumatic stress disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 31,* 875–879.

Mueser, K. T., Jankowski, M. K., Hamblen, J. L., & Rosenberg, S. D. (2003). *Cognitive Behavioral Therapy for PTSD in People with Severe Mental Illness*: Unpublished treatment manual.

Mueser, K. T., Rosenberg, S. R., Xie, H., Jankowski, M. K., Bolton, E. E., Lu, W. . . . Wolfe, R. (2008). A randomized controlled trial of cognitive-behavioral treatment of posttraumatic stress disorder in severe mental illness. *Journal of Consulting and Clinical Psychology, 76,* 259–271.

Mueser, K. T., & Taub, J. (2008). Trauma and PTSD in adolescents with severe emotional disorders involved in multiple service systems. *Psychiatric Services, 59,* 627–634.

Mulvihill, D. (2005). The health impact of childhood trauma: An interdisciplinary review. *Issues in Comprehensive Pediatric Nursing, 28,* 115–136.

Oetzel, K. B., & Scherer, D. G. (2003). Therapeutic engagement with adolescents in psychotherapy. *Psychotherapy Theory, Research, Practice, Training, 40,* 215–225.

Pitman, R. K., Altman, B., Greenwald, E., Longpre, R. E., Macklin, M. L., Poire, R., & Steketee, G. S (1991). Psychiatric complications during flooding therapy for posttraumatic stress disorder. *Journal of Clinical Psychiatry, 52,* 17–20.

Roberts, T. A., & Klein, J. (2003). Intimate partner abuse and high-risk behavior in adolescents. *Archives of Pediatrics & Adolescent Medicine, 157,* 375–380.

Seng, J. S., Graham-Bermann, S. A., Clark, M. K., McCarthy, A. M., &

Ronis, D. L. (2005). Posttraumatic stress disorder and physical comorbidity among female children and adolescents: Results from service-use data. *Pediatrics, 116,* 767–776.

Tarrier, N., Pilgrim, H., Sommerfield, C., Faragher, B., Reynolds, M., Graham, E., & Barrowclough, C. (1999). A randomized trial of cognitive therapy and imaginal exposure in the treatment of chronic posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology, 67,* 13–18.

Wright, J., Friedrich, W., Cinq-Mars, C., Cyr, M., & McDuff, P. (2004). Self-destructive and delinquent behaviors of adolescent female victims of child sexual abuse: Rates and covariates in clinical and nonclinical samples. *Violence and Victims, 19,* 627–643.

Zayfert, C., & Becker, C. B. (2000). Implementing of empirically supported treatment for PTSD: Obstacles and innovations. *The Behavior Therapist, 23,* 161–168.

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