

This article was downloaded by: [University of Connecticut]

On: 04 June 2012, At: 10:50

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Aggression, Maltreatment & Trauma

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/wamt20>

Trauma Affect Regulation Psychoeducation Group and Milieu Intervention Outcomes in Juvenile Detention Facilities

Julian D. Ford^a & Josephine Hawke^a

^a Department of Psychiatry, University of Connecticut School of Medicine, Farmington, Connecticut, USA

Available online: 10 May 2012

To cite this article: Julian D. Ford & Josephine Hawke (2012): Trauma Affect Regulation Psychoeducation Group and Milieu Intervention Outcomes in Juvenile Detention Facilities, *Journal of Aggression, Maltreatment & Trauma*, 21:4, 365-384

To link to this article: <http://dx.doi.org/10.1080/10926771.2012.673538>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

RESEARCH INVOLVING ADOLESCENTS

Trauma Affect Regulation Psychoeducation Group and Milieu Intervention Outcomes in Juvenile Detention Facilities

JULIAN D. FORD and JOSEPHINE HAWKE

*Department of Psychiatry, University of Connecticut School of Medicine,
Farmington, Connecticut, USA*

This article reports outcomes of Trauma Affect Regulation: Guide for Education and Therapy (TARGET), a group and milieu intervention, in three juvenile detention facilities, controlling for site, length of stay, ethnicity, number of arrests, mental health and traumatic stress problems, and cohort effects. Linear multiple regression results showed that every session of TARGET received in the first seven days of detention was associated with 54% fewer disciplinary incidents and 72 fewer minutes of disciplinary seclusion ($p < .001$) for each youth during the modal stay (14 days) in detention. TARGET group participation was unrelated to recidivism, but recidivism declined significantly following implementation of TARGET. Implementing TARGET in juvenile detention facility milieus might improve safety, reduce punitive sanctions, and potentially reduce recidivism.

KEYWORDS adolescence, emotion regulation, group therapy, juvenile justice, milieu program, outcome study, traumatic stress

Submitted 28 November 2011; revised 21 January 2012; accepted 24 January 2012.

The authors thank Ms. Marisol Cruz for serving as the TARGET trainer/consultant; Dr. John Chapman, Mr. Karl Alston, and Mr. William Carbone of the Connecticut Court Support Services Division; and the detention staff who ably implemented TARGET and collected data reported in the study. The study was supported in part by a grant from the Department of Justice Office of Juvenile Justice and Delinquency Programs (OJJDP-2006-JL-FX-K216, Julian Ford, Principal Investigator).

Address correspondence to Julian D. Ford, Department of Psychiatry, University of Connecticut Health Center, MC1410, 263 Farmington Ave., Farmington, CT 06030. E-mail: jford@uchc.edu

The prevalence of trauma exposure and posttraumatic psychosocial and behavioral problems among youth in juvenile justice detention facilities is at least twice that of similar youths in the community (Abram et al., 2004). Exposure to or witnessing of traumatic stressors (especially abuse or violence) can lead to emotional, cognitive, and behavioral dysregulation that place youth at risk for problematic aggression, delinquency, school failure, addiction, and adult criminality (Ford, Hartman, Hawke, & Chapman, 2008). Abuse, violence, addiction, and legal problems might occur in intergenerational cycles, such that from early childhood, the children of at-risk or legally involved parents develop ways of solving problems, achieving goals, and affiliating with peers that are based on posttraumatic stress disorder (PTSD) and a culture of social isolation and deviance (McGloin & Widom, 2001). Therefore, juvenile justice programs increasingly attempt to provide services and activities designed to enable youths (and adults who supervise and care for them) to understand how exposure to traumatic stressors can prime the brain and body to react self-protectively as well as maladaptively on the basis of survival mechanisms (Ford, 2005). By learning how to understand and manage stress reactions, detention staff, probation officers, parents, teachers, coaches, and mentors can help youths to think and act with greater self-control and responsibility rather than with aggression, impulsivity, defiance, or avoidance that characterize trauma-related “survival” coping (Ford, 2005).

Youth exposed to violence on an ongoing basis, as is frequently the case for youth who become involved in the juvenile justice system, do not automatically or necessarily become perpetrators of violence, although this is a serious risk (Ford, Chapman, Connor, & Cruise, 2012; McGloin & Widom, 2001). The large majority of youth in the juvenile justice system who are not charged with violent crimes and have been exposed to violence develop problems with anger that manifest in the form of substance use, anxiety, and depression or suicidality. A study of youth in juvenile detention found that 40% reported witnessing traumatic domestic violence, and these youths had more severe problems with traumatic stress, substance abuse, and suicidal ideation than other detained youths (Ford, Chapman, et al., 2008). Almost all of the detained youths (> 80%) reported witnessing community violence, which was associated with emotional numbing symptoms. This is consistent with evidence that numbing can provide temporary relief from trauma and traumatic stress reactions, but over time, tends to be associated with depression, social isolation, substance abuse, and problems managing fear and anger (Litz & Gray, 2002). These findings underscore the need for approaches to help violence-exposed youths in juvenile justice settings learn ways to regulate their emotions to deal with numbing and prevent risky behavior.

About half of juvenile detainees have at least two psychiatric disorders, and 1 in 10 also have a substance use disorder (Abram, Teplin, McClelland, & Dulcan, 2003; Teplin, Abram, McClelland, Dulcan, & Mericle,

2002). Among adolescents, PTSD often cooccurs with major depression and to a lesser extent with alcohol and marijuana use disorders, and some forms of interpersonal violence might heighten the risk of diagnostic comorbidity (Kilpatrick et al., 2003). Suicidality is a key behavioral health risk in juvenile justice settings because of its prevalence and serious lethality (Metzner, 2003). Furthermore, suicide rates for detained youth are as much as four times higher than rates for the general population, particularly when PTSD and depression symptoms cooccur (Chapman & Ford, 2008). Risk factors for youth suicide include many problems that are prevalent among juvenile offenders that are associated with emotional dysregulation: hopelessness, negative self-concept, hostility, isolation, violent behavior, impulsivity, poor integration in school or work settings, and poor social support.

Although several other promising trauma-focused treatments have either been designed or adapted for adolescents, none of these interventions has been used in juvenile justice settings (Ford, Chapman, Mack, & Pearson, 2006). Several barriers might interfere with the provision of services to help youths in juvenile justice programs recover from traumatic stress. However, one model, Trauma Affect Regulation: Guide for Education and Therapy (TARGET; Ford & Russo, 2006), has been adapted to deal with each of these barriers. First, most juvenile justice programs have limited mental health staffing or consultation, and most trauma-focused interventions require that a mental health professional deliver the intervention (Ford et al., 2005). In contrast, the juvenile justice adaptation of TARGET is designed to be able to be delivered by staff who have no mental health training, as well as by staff or consultants who are mental health savvy or professionals with advanced training. TARGET provides an educational and life skills curriculum beginning with modules that were endorsed and successfully taught by line staff in pilot feasibility studies in all State of Connecticut juvenile detention centers. Mental health consultants are available to provide guidance or backup in the event that youths experience emotional or behavioral problems in TARGET groups led by line staff (although no incidents have been reported to date).

The latter observation is related to a second barrier to delivering trauma-informed services in juvenile detention, which is that administrators and staff often fear that addressing trauma will either cause behavior management problems (e.g., youth will become distressed and act out) or will interfere with maintaining discipline by siphoning off staff time needed to run behavior management programs (e.g., staff will not be permitted or able to use the behavior management protocols). For example, in pilot work in Connecticut juvenile detention centers and community-based juvenile justice programs, concern was voiced that staff might be unable to implement a behavior management consequence such as time-out because of having to use an alternative "trauma-informed" response (e.g., helping an angry youth to use a stress management skill). The possible conflict between implementing

behavior management and providing trauma-informed services has been resolved in TARGET by designing interventions used by staff to be consistent with any constructive behavior management system.

Thus, TARGET provides staff with tools to teach youths who behave problematically to better manage their emotions, thoughts, and behavior using a skill set that actually makes the youth more able to adhere to the rules and expectations of the detention setting. The focusing skills taught in TARGET tend to be useful for staff as well, empowering them to take control of their own stress reactions (and thereby to teach self-control and responsibility by their example, enabling them to serve as role models for detained youth). Staff are not formally asked or instructed to use the self-regulation skills themselves, but instead, are supported by the TARGET trainer or consultant if they spontaneously choose to apply the skills for themselves. TARGET's focusing and emotional regulation skills also provide staff with a practical language and tools to teach youths how to recognize and manage the impulsive reactions that often lead to trouble. In TARGET, problems that lead youths to get in legal trouble are defined as largely being a result of unrecognized stress reactions, except for the small minority of detained youth who are truly psychopathic (Andershed, Kohler, Eno Louden, & Hinrichs, 2008; Wareham, Dembo, Poythress, Childs, & Schmeidler, 2009).

For example, if time-out or room time is used to prevent or deescalate crises, staff using the TARGET model learn to describe this as helping the youth to "regain their mental focus." An easily remembered cue for recognizing stress reactions early enough to stop and think is the SOS (slow down, orient, self-check) taught in TARGET. Staff are taught how to use this apparently simple intervention to accomplish several goals with detained youths: (a) to engage the youth in a shared activity (e.g., "Let's do an SOS together. Can you help me get my mind focused?") that can be done at any time without any special props or preparation and that engages reflective awareness unobtrusively without commands, lectures, or criticism; (b) to help youths to be more mindfully aware of their body and emotion state by doing the SOS as a form of meditative "regrouping" when changing activities or starting a new activity (e.g., when going from school to a meal, or when transitioning from socializing to preparing for sleep); (c) to gain increased ability to pay attention, concentrate, and learn and remember in a variety of activities ranging from school to recreation to socializing; and (d) to rehearse strategies for dealing with stress reactions elicited by the many potent triggers faced by youth in detention (e.g., provocation by peers, conflict with staff related to rules and limits, anticipating and coping with both positive and negative emotional reactions to and from family members, and handling the pressure of court hearings or meeting with court or probation officers). The use of TARGET has also led administrators and staff to reexamine facility behavior management protocols to select or develop

approaches that are most likely to accomplish the goal of increasing mindful and responsible behavior rather than simply trying to keep kids under control.

A third barrier is the underidentification of traumatic stress symptoms, which is often related to fear on the part of staff, administrators, clinicians, parents, and youth that asking about trauma or traumatic stress symptoms will open up Pandora's box and cause emotional or behavioral instability (Ford et al., 2006). Therapy designed to enable traumatized children and adolescents to create a personal narrative of traumatic events has been found to be effective and safe, but less than optimally effective with youths with disruptive behavior problems (Cohen, Berliner, & Mannarino, 2010). Successful cases of this therapy tend to involve several conditions that often are not possible for youth in juvenile detention facilities: (a) a stable residence, (b) safety from further trauma exposure, (c) several months of regular meetings with a specially trained trauma specialist mental health professional, and (d) secure, supportive contact with parents who reliably provide practical and emotional support during the therapy and in daily life.

Beginning in 2004, trauma-informed services were incorporated in Connecticut's state-run juvenile detention facilities beginning with a trauma-screening protocol administered by master's-level juvenile corrections staff. The TARGET intervention was initiated in 2005 to provide both psychoeducational groups and milieu reinforcement by all staff on a 24/7 basis. This report describes that implementation as well as outcomes in the first 3 years (2006–2008) that were of high priority to juvenile justice administrators and staff: reductions in dangerous incidents and punitive sanctions in juvenile detention and in recidivism postrelease.

METHOD

Procedure and Measures

Within 48 hours of admission to each detention center, a staff member met with each youth to provide an individualized orientation to the facility and conduct a psychosocial intake interview that included measures of trauma history and severity of behavior problems that were used in this study. Based on a protocol approved by the Institutional Review Board of the University of Connecticut Health Center and the Institutional Research Review Committee of the State of Connecticut Judicial Branch Court Support Services Division, a system was developed to extract intake administrative data on a deidentified basis. Administrative data utilized in this study included records of the number of TARGET sessions attended as well as daily documentation of behavioral incidents and related room time (i.e., being removed from the community milieu as a consequence of a behavioral incident). Recidivism data were also extracted on a deidentified redacted

basis, specifically the number of arrests in the 6-month period following the youth's release from juvenile detention.

History of psychological trauma was assessed with the Traumatic Events Screening Inventory–Child/Self-Report (TESI–C/SR; Ford et al., 1999), which provides 25 behaviorally specific questions at a fifth-grade reading level about direct exposure to and witnessing of potentially traumatic accidents or illnesses, separation and loss, family violence, community violence, physical assault, and sexual assault or molestation. The Massachusetts Youth Screening Instrument, Second Version (MAYSI–2; Ford, Chapman, et al., 2008) Traumatic Experiences (TE) scale was used to estimate the severity of past trauma exposure.

Participants

Data were collected from a sample of 394 consecutive admissions from three Connecticut juvenile detention facilities, from January 3, 2006 to April 25, 2008. Of these youth, 197 were identified who had received at least one group session of TARGET and for whom complete outcome data could be retrieved from juvenile justice court records. To provide a comparison sample of detained youth who did not receive TARGET, a matched comparison sample of 197 youths with complete outcome data were identified. Youth in the comparison group were admitted to detention facilities where TARGET was not being administered. This was possible because TARGET was phased into the three detention facilities over the study period. Matching criteria included (a) month of admission to detention, (b) gender, and (c) age. Because ethnicity was distributed very differently in the three detention facilities, it could not be used as a matching variable, but was included as a covariate in multivariate analyses.

Demographic characteristics of the full sample of 394 youth included the following: 43% African American, 32% Hispanic, and 24% White; 9% females and 91% males; and mean age = 14.4 years old ($SD = 0.98$; range = 11–16). At admission to detention, two thirds of the youths reported having experienced at least one traumatic stressor in their lifetimes, and approximately 21% had full or partial PTSD (Ford, Hartman, et al., 2008). Detention length of stay ranged from 1 to 138 days, with a median of 15 days. Legal charges that resulted in detention included felonies, violent crimes, violations of probation, and sex offenses (see Table 1 for descriptive characteristics of the subsamples).

Intervention

MODEL

TARGET is a manualized, gender-specific treatment and prevention intervention for traumatized adolescents or adults. TARGET teaches a practical

TABLE 1 Description of the Study Sample

Descriptive Variable		Comparison Group ^a	TARGET Group ^a	Total Sample ^b	Chi-Square
Detention facility					
Hartford	<i>n</i>	180	13	193	283.25***
	% Group	91.37	6.60	48.98	
Bridgeport	<i>n</i>	17	71	88	42.67***
	% Group	8.63	36.04	22.34	
New Haven	<i>n</i>	0	113	113	158.44***
	% Group	0.00	57.36	28.68	
Male gender					
	<i>n</i>	181	177	358	0.49
	% Group	91.88	89.85	90.86	
	% Total	45.94	44.92	90.86	
Ethnicity					
Hispanic	<i>n</i>	69	57	126	2.08
	% Group	35.94	29.08	32.47	
Black	<i>n</i>	70	97	167	6.72*
	% Group	36.46	49.49	43.04	
Mental health concern					
	<i>n</i>	119	148	267	9.77**
	% Group	60.41	75.13	67.77	
Reports physical abuse					
	<i>n</i>	25	35	60	1.97
	% Group	12.69	17.77	15.23	
Reports sexual abuse					
	<i>n</i>	6	7	13	0.08
	% Group	3.05	3.55	3.30	
MAYSI-2 score > Clinical cutoff					
Traumatic Experiences	<i>n</i>	128	120	248	0.67
	% Group	64.97	60.91	62.94	
Arrests in year before detention					
Any felony	<i>n</i>	82	79	161	0.28
	% Group	43.85	41.15	42.48	
Any status violation	<i>n</i>	68	114	182	20.10**
	% Group	36.36	59.38	48.02	
Any sex offense	<i>n</i>	9	10	19	
	% Group	4.81	5.21	5.01	0.03
Any drug offense	<i>n</i>	35	23	58	3.32
	% Group	18.72	11.98	15.30	
Any violent offense	<i>n</i>	73	80	153	0.27
	% Group	39.04	41.67	40.37	

Note. MAYSI-2 = Massachusetts Youth Screening Instrument, 2nd version.

^a*N* = 197. ^b*N* = 394.

p* < .05. *p* < .01. ****p* < .001.

seven-step sequence of skills for processing and managing trauma-related reactions to current stressful experiences (e.g., PTSD symptoms, traumatic grief, survivor guilt, shame, anger and hostility, interpersonal rejection, and existential or spiritual alienation). The skills are designed in a sequence based on research on the psychobiology of PTSD and complex traumatic stress disorders (Ford, 2005). They are summarized by an acronym, FREEDOM, that includes the following: (a) self-regulation via focusing (F); (b) trauma processing via recognizing current triggers, emotions, and

cognitive evaluations (REE); and (c) strengths-based reintegration by defining core goals, identifying currently effective responses (options), and affirming core values by making positive contributions (DOM). TARGET also includes a creative arts activity involving personalized lifelines that youth make with collage, drawing, poetry, and writing to engage healthy nontraumatic autobiographical memory processing. Memory reexamination procedures are designed to maximize awareness of the present situation; to reduce rumination, panic, or dissociation; and to enhance the youth's sense of control and safety in titrating memories. Memory work in TARGET focuses on current or past experiences that have meaning or importance to the youth, and not specifically or exclusively on traumatic stressors.

INITIAL ENGAGEMENT AND PSYCHOEDUCATION

During orientation, juveniles are introduced to an explanation for traumatic stress reactions that describes how normal stress responses in the brain's alarm, filing center, and thinking center differ from extreme stress reactions that are an automatic self-protective adaptation geared to survive traumatic stressor experiences that can become chronic problems in the form of PTSD. This novel description of PTSD is used to explain why sensitive topics (e.g., trauma history, PTSD symptoms, suicide, and alcohol and substance use risk) are being assessed in the screening interview, and how this understanding will help each youth develop skills for dealing more effectively with stress reactions. The orientation session also introduces the SOS skill for mental focusing. This skill provides an immediate practical tool for self-regulation skills that youths (and staff) are taught to use to build or strengthen their ability to handle stress reactions without acting in an avoidant, impulsive, oppositional, vengeful, or aggressive manner. Youths and staff together practice the SOS several times daily outside the TARGET group, in situations where they are not stressed, to increase their ability to anticipate and respond to stressful events in a focused manner.

PSYCHOEDUCATION GROUPS

Within the next two to three days after admission, youths begin participating in TARGET groups with the goal of having each youth complete the first four sessions of TARGET within the first 2 weeks of their stay. Juveniles who stay longer continue to participate in TARGET group sessions, with the goal of completing as many of the 10 TARGET sessions as possible. Staff use the terminology and skills taught in TARGET groups in all activities (including teachers in the facility's school) to reinforce and generalize what youth learn in the groups to their entire daily life. Thus, staff and teachers serve as crucial role models, not only by encouraging youths to use TARGET skills, but also

by demonstrating through their ongoing interactions with youths how those self-regulation concepts and tools can enhance any person's effectiveness. Although designed for a group format with youth in juvenile detention, TARGET was efficacious with delinquent girls in community settings when delivered as a one-to-one therapy (Ford, Steinberg, Hawke, Levine, & Zhang, 2012).

COACHING

Two forms of coaching are built into TARGET. Staff members serve as coaches for youths by helping them apply the FREEDOM skills to all daily activities, including during positive times, as well as manage stress or deescalate potentially problematic reactions. This provides staff with a way of relating to youths that is educative and empowering, which expands their role from custodial monitoring to guiding youths constructively toward responsible behavior. Staff members have noted that this has made their jobs more satisfying, because it enables them to show their caring in more appropriate ways and help youths improve their behavior.

Peer coaching is another important TARGET component. Youths who have completed several group sessions and are successfully using skills are called on by group leaders to explain the concepts and demonstrate the skills to youths newly joining the group. Many youths view peers as more credible than adults; thus, having an experienced member provide a personal endorsement of the group and the skills can be a powerful motivational intervention. Peer coaches also serve as role models by demonstrating how to apply the skills in the group and in the milieu. This strengthens the peer coach's ability to use the skills and also shows the other youths that acquiring and using knowledge can be a better way to gain respect from peers than relying on deviant behaviors. As one boy described, "I know how the brain works, and now I get respect because I have the power to focus my mind. No one is stronger than me." Youths have proven to be talented peer teachers and day-to-day reinforcers of TARGET.

CRISIS PREVENTION AND DEESCALATION

In one of the detention centers, the master's-level staff using TARGET decided to be proactive in preventing and deescalating behavioral crises. They worked with the TARGET consultant and the detention facility's administration to establish a new role called *crisis prevention monitors*. In this role, several master's-level staff on each shift were trained by the TARGET consultant to coach and support detention staff in handling (or avoiding) crises using the SOS focusing and other TARGET skills. Staff learned how to use the TARGET terminology to help youths deescalate from stress reactions and

to debrief with youths in the aftermath. Many staff were surprised by youths' ability to regroup and think and act responsibly when they used TARGET's practical terms to nip a potential crisis in the bud (e.g., "Let's do an SOS together to get focused;" "I know you're really angry, but what's your main goal?"). Staff also found the SOS focusing skill and FREEDOM steps helpful in redirecting their own fearful and angry reactions when youths were oppositional or emotionally escalated. As a result, staff reduced their reliance on confrontational disciplinary methods, and both staff and youths increasingly used the SOS and other TARGET skills to anticipate and prevent crises.

STAFF TRAINING AND ONGOING CONSULTATION TO SUPPORT FIDELITY AND COMPETENCE OF TARGET IMPLEMENTATION

All detention center personnel (including food service, clerical, maintenance and janitorial, educator, administrator, and clinician staff) received an introductory training and periodic refresher trainings from one of two TARGET consultants. Facility staff, including both bachelor's-level juvenile detention officers and master's-level classification and program officers who served as TARGET group leaders also received additional specialized training designed to enable them to implement the session-by-session TARGET group curriculum competently (i.e., with attention to engaging and motivating youth participants, balancing experiential and didactic portions of the curriculum, monitoring and facilitating youth interaction, and constructive group dynamics) and with fidelity to the model. TARGET group leaders and crisis prevention monitors received regular (usually biweekly) on-site consultation, and all staff receive periodic "curbside" consultations to enable them to integrate the TARGET concepts and skills into the milieu. More than 100 detention staff members in Connecticut were trained and received ongoing consultation to deliver 4- and 10-session versions of TARGET.

The TARGET trainer and consultant, a bilingual Spanish-fluent female, periodically observed TARGET groups conducted by more than 20 different staff members in the detention facilities during the study period. Using a fidelity checklist designed to itemize the core elements of the curriculum for each group session, she was able to independently confirm that the TARGET model was delivered as manualized with more than 80% fidelity. The primary gaps in fidelity were not based on a failure to teach the required concepts and skills, but on occasional omissions of engaging the youths in an interactive discussion regarding practical examples from their lives or ways that they could apply the knowledge and skills in daily life. At times, group leaders also translated TARGET concepts and skills into corrective prescriptions; for example, "You need to stop letting your alarm reactions get you into trouble, and put more effort into using your mind to think before you act." The trainer and consultant was able to provide staff with constructive direct feedback following group sessions to role model how to identify reactive

behaviors (e.g., getting caught up in lecturing to the exclusion of encouraging positive interaction; letting frustration become expressed in the form of criticism of the youth rather than encouragement) in a way that helped staff to be more mindful without feeling criticized or embarrassed. Positive corrections were consistently observed by the trainer in subsequent TARGET sessions.

RESULTS

Of the 197 youths who received at least one TARGET group session, 39 (19.8%) attended one session, 62 (31.5%) attended two sessions, 47 (23.9%) attended three sessions, and 49 (24.9%) attended four or more sessions. This is consistent with the typical short length of stay in Connecticut's juvenile detention centers (i.e., 14 days). Detention stays were calculated as the days between the admission date and the discharge date from the facility. Stays ranged from 1 day (2 juveniles, 0.5%) to 138 days (1 juvenile, 0.3%). The average stay was 21.4 days ($SD = 20.5$), with a median of 15 days and a mode of 15 days.

Characteristics of the treatment and comparison groups are presented in Table 1. Because TARGET was implemented first in New Haven, then in Bridgeport, and finally in Hartford, most youths in the TARGET group were from the New Haven and Bridgeport facilities, whereas most youths in the comparison group were from the Hartford detention center, $\chi^2(3) = 42.67, p < .001$; $\chi^2(3) = 158.44, p < .001$; and $\chi^2(3) = 283.25, p < .001$, respectively. Despite the matching procedures described earlier, there were fewer African American youths in the comparison group than in the TARGET group, $\chi^2(3) = 6.72, p < .01$. Similarly, there were more youths in the TARGET than comparison group for whom mental health concerns were detected by detention counselors at admission to detention, $\chi^2(3) = 9.77, p < .01$.

Table 2 reports bivariate correlations among key variables. The number of TARGET sessions received in the first week of detention was related to the number of incidents in the first 14 days ($r = .18, p < .01$), being admitted to the New Haven ($r = .33, p < .05$) or Bridgeport detention facilities ($r = .32, p < .05$), and total days in detention ($r = .22, p < .05$).

Tables 3 through 5 show the results of blockwise linear regression analyses for the three primary outcome measures. Variables for which there were statistically significant differences between the TARGET and comparison groups (i.e., detention facility, ethnicity, and mental health concerns identified at admission) or for which there was a correlation with the number of TARGET sessions received (i.e., detention length of stay) were controlled in the first step of the multivariate analysis. Severity of traumatic events and current traumatic stress reactions were controlled for

TABLE 2 Pearson Correlations among Psychological Distress, Trauma, Posttraumatic Stress Disorder (PTSD) and Complex PTSD Symptom, Gender, and Outcome Variables

	1	2	3	4	5	6	7	8	9	10	11
1. Number incidents in 14 days	.64**										
2. Room time in 14 days	.07	.06									
3. Arrests 6 months after release	.16**	.09	.19**								
4. New Haven facility	.29**	.17**	-.06	-.34**							
5. Bridgeport facility	.09	.15**	.12*	.15**	.04						
6. Black ethnicity	.01	-.05	-.12*	-.13*	.02	-.59**					
7. Hispanic ethnicity	.25**	.18**	-.05	.14*	.09	.11*	-.05				
8. Days in detention	.14*	.11*	.23**	.18**	-.05	-.01	.00	.11*			
9. Arrests in prior 6 months	.07	.05	.02	.26**	-.15**	-.22**	.05	.04	.13*		
10. Mental health concerns score	-.01	.04	.00	-.12*	.10	-.06	.04	.01	-.08	-.01	
11. MAYSI-2 TE subscale	.18**	.06	.03	.33**	.32**	0.09	-.08	.22**	.07	.03	.00
12. Number of sessions of TARGET in Week 1 of detention											

Note. MAYSI-2 TE = Massachusetts Youth Screening Instrument, 2nd Version Traumatic Experiences scale; TARGET = Trauma Affect Regulation: Guide for Education and Therapy.

* $p < .05$. ** $p < .01$.

TABLE 3 Predictors of Disciplinary Incidents in the First 14 Days of Detention

	Beta	SE	β	<i>t</i>	<i>p</i>	95% Confidence Interval
Step 1						
New Haven	1.16	0.29	0.22	4.06	.00	[0.60, 1.72]
Bridgeport	2.09	0.29	0.36	7.23	.00	[1.52, 2.66]
Black	0.45	0.29	0.09	1.52	.13	[-0.13, 1.02]
Hispanic	0.42	0.30	0.08	1.40	.16	[-0.17, 1.00]
Days in detention	0.11	0.03	0.17	3.60	.00	[0.05, 0.17]
Number of arrests in prior 6 months	0.16	0.08	0.09	1.91	.06	[0.00, 0.32]
Mental Health Concerns (MHC) score	0.30	0.26	0.06	1.16	.25	[-0.21, 0.81]
MAYSI-2 Traumatic Experiences (TE) score	0.04	0.23	0.01	0.15	.88	[-0.42, 0.49]
Model $R^2 = .21$, $F(8, 376) = 24.33$, $p = .000$						
Step 2						
New Haven	1.69	0.33	0.31	5.19	.00	[1.05, 2.33]
Bridgeport	2.78	0.34	0.48	8.24	.00	[2.12, 3.44]
Black	0.78	0.53	0.10	1.75	.08	[-0.06, 1.06]
Hispanic	0.38	0.29	0.07	1.31	.19	[-0.19, 0.96]
Days in detention	0.10	0.03	0.16	3.41	.01	[0.04, 0.16]
Number of arrests in prior 6 months	0.15	0.08	0.09	1.83	.07	[-0.01, 0.31]
MHC score	0.4	0.47	0.01	0.09	.93	[-0.97, 0.89]
MAYSI-2 TE Score	0.00	0.48	0.00	0.00	.00	[-0.95, 0.95]
Number of TARGET sessions	-0.53	0.17	-0.19	-3.12	.02	[-0.87, -0.20]
Detention occurred after March 2007	2.47	0.55	0.23	4.50	.00	[1.39, 3.56]
Interaction of TARGET sessions × TE score	0.48	0.48	0.08	1.00	.32	[-0.47, 1.43]
Interaction of TARGET sessions × MHC score	0.15	0.46	0.03	0.33	.74	[-0.76, 1.07]
Interaction of TE score × MHC score	-0.02	0.49	0.00	-0.04	.97	[-0.99, 0.95]
Model $R^2 = .26$, $\Delta R^2 = .05$, $F(13, 371) = 9.90$, $p = .000$						

Note. $N = 388$ with listwise deletion of missing data; MAYSI-2 = Massachusetts Youth Screening Instrument 2nd Version; TARGET = Trauma Affect Regulation: Guide for Education and Therapy.

in the first step with the MAYSI-2 Traumatic Experiences score. The number of TARGET sessions received in the first week after admission was entered in the second step.

Multivariate analyses included two additional refinements. First, potential cohort effects were controlled for in two ways. Improved data collection procedures were instituted halfway through the study, so a control variable was included in the second step to distinguish whether data were collected before or after a data management system was put into effect. Additionally, in a final step in the regression analysis predicting recidivism, an interim step was included in which the in-facility outcome variables

TABLE 4 Predictors of Hours of Room Time in the First 14 Days

	Beta	β	SE	<i>t</i>	<i>p</i>	95% Confidence Interval
Step 1						
New Haven	82.71	0.09	51.19	1.62	.11	[-17.94, 183.36]
Bridgeport	188.80	0.19	51.76	3.65	.00	[87.02, 290.57]
Black	132.55	0.16	52.63	2.52	.01	[29.07, 236.03]
Hispanic	43.45	0.05	53.26	0.82	.42	[-61.28, 148.19]
Days in detention	11.94	0.11	5.42	2.21	.03	[1.29, 22.59]
Number of arrests in prior 6 months	26.68	0.09	14.95	1.78	.08	[-2.71, 56.08]
Mental Health Concerns (MHC) score	65.21	0.08	46.16	1.41	.16	[-25.56, 155.98]
MAYSI-2 Traumatic Experiences (TE) score	42.87	0.05	41.80	1.03	.31	[-39.33, 125.07]
Model $R^2 = .10$, $F(8, 376) = 5.16$, $p = .000$						
Step 2						
New Haven	143.09	59.55	0.16	2.40	.02	[26.00, 260.18]
Bridgeport	264.04	61.80	0.27	4.27	.00	[142.51, 385.57]
Black	60.60	96.70	0.07	0.63	.53	[-129.55, 250.75]
Hispanic	32.54	53.46	0.04	0.61	.54	[-72.59, 137.67]
Days in detention	12.94	5.48	0.12	2.36	.02	[2.16, 23.72]
Number of arrests in prior 6 months	24.75	14.98	0.08	1.652	.01	[-4.71, 54.21]
MHC score	-13.68	86.77	-0.02	-0.16	.88	[-184.30, 156.94]
MAYSI-2 TE Score	32.66	88.59	0.04	0.37	.71	[-141.54, 206.86]
Number of TARGET sessions	-69.27	31.19	-0.15	-2.22	.03	[-130.60, -7.94]
Detention occurred after March 2007	118.56	100.88	0.07	1.18	.24	[-79.82, 316.94]
Interaction of TARGET sessions × TE score	113.32	88.48	0.12	1.28	.20	[-60.67, 287.31]
Interaction of TARGET sessions × MHC score	-10.45	85.06	-0.01	-0.12	.90	[-177.71, 156.81]
Interaction of TE score × MHC score	23.90	90.42	.03	.26	.79	[-153.90, 201.69]
Model $R^2 = .12$, $\Delta R^2 = .02$, $F(13, 371) = 3.74$, $p = .000$						

Note. = 388 with listwise deletion of missing data; MAYSI-2 = Massachusetts Youth Screening Instrument 2nd Version; TARGET = Trauma Affect Regulation: Guide for Education and Therapy.

(disciplinary incidents and sanctions) were included as dependent variables in the model, based on their bivariate associations with recidivism. Second, because initial severity of mental health or traumatic stress problems might moderate the effect of number of TARGET sessions received, interaction terms were created for those variables (i.e., number of sessions by MAYSI-2 Traumatic Experiences score; number of sessions by Mental Health Concerns score; and, MAYSI-2 Traumatic Experiences score by Mental Health Concerns score).

After controlling for the effects of site (i.e., specific detention center), length of stay, youths' age, gender, ethnicity, type and severity of legal

TABLE 5 Predictors of Arrest in the 6 Months Following Release from Detention

	Beta	β	SE	<i>t</i>	<i>p</i>	95% Confidence Interval
Step 1						
Black ethnicity	0.14	0.06	0.15	0.97	.33	[-0.15, 0.44]
Hispanic ethnicity	-0.15	-0.06	0.15	-1.01	.31	[-0.45, 0.14]
Number of arrests in prior 6 months	0.18	0.22	0.04	4.33	.00	[0.10, 0.27]
Mental Health Concerns (MHC) score	-0.07	-0.03	0.13	-0.54	.59	[-0.33, 0.18]
MAYSI-2 Traumatic Experiences (TE) score	0.11	0.05	0.12	0.97	.33	[-0.12, 0.35]
New Haven facility	0.40	0.16	0.15	2.72	.01	[0.11, 0.69]
Bridgeport facility	-0.01	0.00	0.16	-0.06	.95	[-0.32, 0.30]
Days in detention	-0.04	-0.13	0.02	-2.48	.01	[-0.07, -0.01]
Room time in first 14 days	0.00	-0.01	0.00	-0.13	.89	[0.00, 0.00]
Incidents in first 14 days	0.03	0.05	0.03	0.78	.44	[-0.04, 0.09]
Model $R^2 = .11$, $\Delta R^2 = .04$, $F(10, 374) = 4.39$, $p = .000$						
Step 2						
Black ethnicity	0.12	0.05	0.15	0.80	.43	[-0.17, 0.41]
Hispanic ethnicity	-0.17	-0.07	0.15	-1.12	.27	[-0.46, 0.13]
Number of arrests in prior 6 months	0.18	0.22	0.04	4.35	.00	[0.10, 0.27]
MHC score	-0.05	-0.02	0.13	-0.36	.72	[-0.30, 0.21]
MAYSI-2 TE score	0.11	0.05	0.12	0.96	.34	[-0.12, 0.34]
New Haven facility	0.34	0.13	0.17	1.95	.05	[0.00, 0.67]
Bridgeport facility	-0.12	-0.04	0.19	-0.62	.53	[-0.49, 0.25]
Days in detention	-0.04	-0.12	0.02	-2.28	.02	[-0.07, 0.00]
Room time in first 14 days	0.00	-0.03	0.00	-0.39	.70	[0.00, 0.00]
Incidents in first 14 days	0.04	0.09	0.03	1.28	.20	[-0.02, 0.11]
Number of TARGET sessions in first week	0.03	0.03	0.09	0.39	.70	[-0.14, 0.21]
Detention occurred after March 2007	-0.64	-0.12	0.29	-2.21	.03	[-1.22, -0.07]
Model $R^2 = .12$, $\Delta R^2 = .01$, $F(12, 372) = 4.71$, $p = .000$						

Note. $N = 385$ with listwise deletion of missing data; MAYSI-2 = Massachusetts Youth Screening Instrument 2nd Version; TARGET = Trauma Affect Regulation: Guide for Education and Therapy.

charges, trauma history, and behavioral health problem severity, as well as the original versus improved data management systems, every session of TARGET received in the first 14 days of detention stay was associated with: (a) .53 fewer disciplinary incidents, and (b) 69.3 fewer minutes of disciplinary seclusion, $p < .05$ (see Tables 3 and 4). Similar but smaller improvements were found in the first 7 days (data not reported but available from the first author). The absence of a significant interaction term for TARGET sessions with either the MAYSI-2 score or the Mental Health Concerns variable suggests that the dose of TARGET was associated with reduced disciplinary problems and use of seclusion as a sanction for participants of all levels of severity of traumatic stress and mental health

problems. The absence of a significant interaction term for the MAYSI–2 Traumatic Experiences and Mental Health Concerns variables suggests that the combination of more severe traumatic stress and mental health problems was not associated with elevated levels of disciplinary problems.

The analysis examining correlates of recidivism within the first 6 months after release included only youths released into the community and not those transferred to residential placements (Table 5). Prior arrest history and detention in the New Haven facility were associated with increased risk of recidivism, but longer stays in detention were associated with a lower likelihood of recidivism. In the second step, these associations remained statistically significant, and two other variables (detention in the Bridgeport facility and participation after the improved data management system was instituted) also were statistically significant. The number of TARGET sessions received was not associated with postdetention recidivism.

DISCUSSION

Study findings suggest that participating in TARGET groups is associated with a reduction in disciplinary incidents and in punitive sanctions in juvenile detention facilities. The dose–response relationship between the number of TARGET group sessions attended in the first week of detention and the number of disciplinary incidents and length of seclusion time suggests that TARGET was associated not only with more prosocial youth behavior, but also with a safer environment.

The finding that the relationships were not moderated by the severity of either traumatic stress or mental health problems suggests that TARGET intervention can benefit youths with a range of severity of prior traumatic exposure and current traumatic stress and mental health symptoms. Therefore, TARGET should not be provided just to youths with severe traumatic stress histories or symptoms, because it might enhance self-regulation, behavioral self-control, and coping skills with stress reactivity for all detained juveniles. Detained youth often face severe stressors in their family, community, peer relationships, and school activities that include but are not limited to formally traumatic stressors (Abram et al., 2004). When interventions such as TARGET assist youths in recognizing and managing stress reactivity, this might result in fewer or less severe behavioral and disciplinary problems. From a resilience perspective, when youths learn to better regulate their emotions and utilize mindful problem solving in TARGET, this might contribute not only directly to their own well-being and safety, but also to promoting a more prosocial peer group and safer environment for everyone. On the other hand, youth with relatively severe traumatic stress or mental health problems appear able to benefit from even the relatively small dose of TARGET group sessions provided in the first week of detention (between

one and three sessions). More extended and intensive interventions might be necessary to resolve clinically severe PTSD or mental health problems among detained youth as a result of the complications of comorbid disruptive behavior problems (Cohen et al., 2010). However, a brief, focused intervention might provide relatively immediate benefits that could be a foundation for further treatment for more severe and persistent emotional and behavioral problems. Youth with severe or acute psychiatric impairment generally were not admitted to the detention facilities in the study period, so the effectiveness of TARGET with justice-involved youth who have severe acute PTSD or psychiatric impairment remains to be tested.

Study findings indicate that maximizing even the relatively small dose of TARGET that could be provided in a brief time period (i.e., 1 week) in a highly controlled (and high-stress) juvenile justice residential environment might be sufficient in leading to fewer disciplinary incidents and shorter seclusion sanctions. However, the mechanisms of this effect remain to be elucidated. The TARGET intervention is designed to provide youth (and staff) with knowledge that could enhance their expectations (e.g., self-efficacy, belief in malleability of traumatic stress reactions) and skills (e.g., early detection of and mindful cognitive and interpersonal responses to stress reactions) for emotion regulation and recovery from posttraumatic stress symptoms. Therefore, further research is needed to test whether TARGET is associated with reductions in symptoms of PTSD and associated internalizing and externalizing disorders, as well as with an increase in emotion regulation and coping skills. TARGET also could be tested as a prevention intervention with youths who are on probation, or those who are involved in delinquency but have not yet had any formal juvenile justice involvement.

The finding of no relationship between TARGET attendance and recidivism could be due to several factors. Typically, the strongest and most consistent predictor of recidivism is prior criminal history, measured in this study by the number of arrests in the predetention period. Brief interventions are unlikely to have a demonstrated effect on recidivism. Recidivism is affected by many factors beyond the youth's ability to control impulsive behaviors that are not directly addressed by TARGET. Future research is needed to test whether TARGET affects recidivism risk factors such as self-efficacy, social judgment, and peer relationships. Research should also examine whether TARGET delivered over a longer time period (e.g., postdetention or prior to detention in community programs) can reduce recidivism. Methodologically, the subsample for which recidivism data were available was smaller than the full sample, resulting in potentially insufficient statistical power to detect relationships (i.e., Type II error).

More substantively, recidivism is the result of a host of factors in youths' communities, families, schools, and peer groups that are difficult to impact with an intervention that is confined to detention facilities. This suggests

that TARGET would have the fullest benefit if implemented across the full range of environments and services that affect detained youths. For example, TARGET has been adapted to be delivered with entire families both in outpatient and evidence-based, home-based interventions (Ford & Saltzman, 2009). TARGET implementation in Connecticut has also been expanded to include groups in a statewide network of more than 20 community-based risk reduction and family support centers. Evaluation of the impact of this broader and earlier systemic implementation of TARGET is a key next step.

It is of note that a variable associated with reduced recidivism (admission to detention in the second half of the field trial study) also correlated with the number of sessions of TARGET attended. This raises the possibility that TARGET might have led to changes in the detention facilities' milieu, as was anecdotally reported by staff and administrators at both the New Haven and Bridgeport facilities. Further research is needed to determine if changes not only in youth but in the detention milieu result from introducing TARGET. If so, it will be important to determine if changes in detention facilities' milieus and cultures resulting from TARGET are associated with wider and longer term systemic benefits, such as reduced recidivism.

Implementation fidelity is important to the effectiveness of behavioral interventions for delinquent youth (Ford, Chapman, et al., in press). Although the staff conducting groups delivered TARGET with good fidelity, some gaps in fidelity were identified. Generalization to the full milieu was not directly assessed and might have required additional or lengthier intervention. For example, the TARGET consultant learned anecdotally that in one detention center, staff were using room time as a way to have youths engage in the TARGET SOS focusing activity when youths' behaviors were mildly problematic, rather than only following severe incidents. This might help to explain, in part, the reduction in serious incidents and seclusion time that was associated with increased TARGET attendance. Proactive attempts at earlier identification and defusing of problem behaviors using the SOS focusing skill might have led to shorter seclusion episodes and fewer serious incidents. This possibility warrants empirical testing in future studies.

The opportunity to learn something useful while in juvenile detention comes as a surprise to most youth, and is initially often viewed with skepticism and apparent disinterest. As one youth said, "What can you teach me that I need? You don't know my life, you're from the suburbs!" Yet, after learning how the brain changes its pattern of activation when confronted with a traumatic stressor and how this "alarm" reaction can persist and be set off by minor stressors months or even years later, this same youth had a very different response: "Why didn't somebody tell me about this before? Everybody's been telling me how messed up I am or trying to fix me, but no one ever showed me how my brain works! That's what I need to know." Like many other youth, this boy needed useful information to inspire a sense of genuine hope ("Maybe I wasn't just born bad or too stupid to know how

to do right. I never knew that an alarm in me was in control, but now that I do I'm taking back the control!") and curiosity ("Show me how to reset the alarm in my brain so I can stop and think before I get too angry!")

In conclusion, although the results of this study must be considered preliminary due to the quasi-experimental research design, the findings are promising. The dose of TARGET received by youths after entering detention was related to reductions in disciplinary incidents and punitive sanctions. This suggests that teaching affect regulation skills can contribute to the safety and well-being of a vulnerable population of youth who have been court-ordered to reside in juvenile detention facilities. The benefits are also likely to extend to the adult staff members who work in the detention facilities, both in terms of their own safety as well as their ability to rehabilitate, teach, and mentor rather than just monitoring, containing, and punishing detained youths. Although the dose of TARGET group attendance in the first week of detention was not associated with a lower risk of recidivism, TARGET received in detention might provide a foundation for positive post-detention adjustment if it is reinforced on a more extended basis either in detention or after return to the community. Therefore, the extension of trauma-informed interventions such as TARGET beyond juvenile justice residential facilities and into community-based prevention and reentry programs warrants systematic implementation and research evaluation.

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*(4), 403–410.
- Abram, K. M., Teplin, L. A., McClelland, G. M., & Dulcan, M. K. (2003). Comorbid psychiatric disorders in juvenile detention. *Archives of General Psychiatry*, *60*(11), 1097–1108.
- Andershed, H., Kohler, D., Eno Loudon, J., & Hinrichs, G. (2008). Does the three-factor model of psychopathy identify a problematic subgroup of young offenders? *International Journal of Law and Psychiatry*, *31*(2), 189–198.
- Chapman, J. F., & Ford, J. D. (2008). Relationships between suicide risk, traumatic experiences, and substance use among juvenile detainees screened with the MAYSI-2 and Suicide Ideation Questionnaire. *Archives of Suicide Research*, *12*(1), 50–61.
- Cohen, J. A., Berliner, L., & Mannarino, A. (2010). Trauma focused CBT for children with co-occurring trauma and behavior problems. *Child Abuse and Neglect*, *34*(2), 215–224.
- Ford, J. D. (2005). Implications for psychiatric treatment of altered neurobiology, affect regulation and information processing after child maltreatment. *Psychiatric Annals*, *35*(5), 410–419.
- Ford, J. D., Chapman, J., Mack, M., & Pearson, G. (2006). Pathways from traumatic child maltreatment to delinquency: Implications for juvenile and permanency

- court proceedings and decisions. *Juvenile and Family Court Journal*, 57(1), 13–26.
- Ford, J. D., Chapman, J., Connor, D. F., & Cruise, K. C. (in press). Complex trauma and aggression in secure juvenile justice settings. *Criminal Justice & Behavior*.
- Ford, J. D., Chapman, J. F., Pearson, G., Borum, R., Hawke, J., & Wolpaw, J. M. (2008). MAYSI-2 factor structure, reliability, and predictive validity in juvenile detention. *Journal of Psychopathology and Behavioral Assessment*, 30(1), 87–99.
- Ford, J. D., Courtois, C. van der Hart, O., Nijenhuis, E., & Steele, K. (2005). Treatment of complex post-traumatic self-dysregulation. *Journal of Traumatic Stress*, 18, 437–447.
- Ford, J. D., Hartman, J. K., Hawke, J., & Chapman, J. (2008). Traumatic victimization, posttraumatic stress disorder, suicidal ideation, and substance abuse risk among juvenile justice-involved youths. *Journal of Child and Adolescent Trauma*, 1(1), 75–92.
- Ford, J. D., Racusin, R., Daviss, W. B., Ellis, C., Thomas, J., Rogers, K., et al. (1999). Trauma exposure among children with oppositional defiant disorder and attention deficit hyperactivity disorder. *Journal of Consulting and Clinical Psychology*, 67(5), 786–789.
- Ford, J. D., & Russo, E. (2006). A trauma-focused, present-centered, emotional self-regulation approach to integrated treatment for post-traumatic stress and addiction: Trauma Adaptive Recovery Group Education and Therapy (TARGET). *American Journal of Psychotherapy*, 60(4), 335–355.
- Ford, J. D., & Saltzman, W. (2009). Family systems therapy. In C. A. Courtois & J. D. Ford (Eds.), *Treating complex traumatic stress disorders: An evidence-based guide* (pp. 391–414). New York: Guilford.
- Ford, J. D., Steinberg, K., Hawke, J., Levine, J., & Zhang, W. (2012). Randomized trial of emotion regulation and relational psychotherapies for PTSD with girls involved in delinquency. *Journal of Clinical Child and Adolescent Psychology*, 41(1), 27–37.
- Kilpatrick, D., Ruggiero, K., Acierno, R., Saunders, B., Resnick, H., & Best, C. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity. *Journal of Consulting and Clinical Psychology*, 71(4), 692–700.
- Litz, B., & Gray, M. (2002). Emotional numbing in posttraumatic stress disorder. *Australian and New Zealand Journal of Psychiatry*, 36(2), 198–204.
- McGloin, J., & Widom, C. (2001). Resilience among abused and neglected children grown up. *Development and Psychopathology*, 13(4), 1021–1038.
- Metzner, J. L. (2003). Trends in correctional mental health care. In J. Moore (Ed.), *Management and administration of correctional health care* (pp. 12–17). Kingston, NJ: Civic Research.
- Teplin, L. A., Abram, K. M., McClelland, G. M., Dulcan, M. K., & Mericle, A. (2002). Psychiatric disorders in youth in juvenile detention. *Archives of General Psychiatry*, 59(6), 1133–1143.
- Wareham, J., Dembo, R., Poythress, N. G., Childs, K., & Schmeidler, J. (2009). A latent class factor approach to identifying subtypes of juvenile diversion youths based on psychopathic features. *Behavioral Science and the Law*, 27(1), 71–95.