Dyadic Developmental Psychotherapy: Effective Treatment for Complex Trauma and Disorders of Attachment

Arthur Becker-Weidman, PhD

Abstract

Chronic early maltreatment within a caregiving relationship, known as Complex Trauma, can cause significant disruptions in normal developmental processes in several domains. This article describes Complex Trauma and its effects on development, as well as an evidence-based, effective, and empirically validated treatment: Dyadic Developmental Psychotherapy. Dyadic Developmental Psychotherapy has been found to be an effective approach for the treatment of Complex Trauma and disorders of attachment. It is a family-therapy-based treatment that focuses on several of the domains that can be affected by Complex Trauma: attachment, behavioral regulation, affect regulation, cognition, defensive functions, and self-concept. This paper summarizes the results of three empirical studies, along with important implications for treatment, education, child welfare policy and practice, and parenting.

Introduction

Reactive attachment disorder is a severe developmental disorder caused by a chronic history of maltreatment within the caregiving relationship during the first few of years of life. Reactive attachment disorder may be misdiagnosed by mental health professionals who do not have the appropriate training and experience in evaluating and treating such children. Often, children in the child welfare system have a variety of diagnoses. The behaviors and symptoms that are the basis for these previous diagnoses are often better conceptualized as resulting from Complex Trauma and as being subsumed under a diagnosis of reactive attachment disorder. Oppositional defiant disorder behaviors, for instance, can all come within reactive attachment disorder. Posttraumatic stress disorder (PTSD) symptoms that are the result of a significant history of abuse and neglect constitute another dimension of Complex Trauma. Attention problems, and even psychotic disorder symptoms, are often seen in children with a disorganized pattern of attachment (Lyons-Ruth & Jacobvitz, 2008; Solomon & George, 1999; Main & Hesse, 1990; Carlson, 1988).

Approximately 2% of the population is adopted, and between 50% and 80% of such children have attachment disorder symptoms (Carlson, Cicchetti, Barnett, & Braunwald, 1995; Cicchetti, Cummings, Greenberg, & Marvin, 1990). Many of these children are violent (Robins, 1978) and aggressive (Prino & Peyrot, 1994), and as adults are at risk of developing a variety of psychological problems (Schreiber & Lyddon, 1998) and personality disorders, including antisocial personality disorder (Finzi, Cohen, Sapir, & Weizman, 2000), narcissistic personality disorder, borderline personality disorder, and psychopathic personality disorder (Dozier, Stovall, & Albus, 2008). Neglected children are at risk of social withdrawal, social rejection, and pervasive feelings of incompetence (Finzi, Cohen, Sapir, & Weizman, 2000). Children who have histories of abuse and neglect are at significant risk of developing PTSD as adults (Allan, 2001). Children who have been sexually abused are at significant risk of developing anxiety disorders (2.0 times the average), major depressive disorders (3.4 times average), alcohol abuse (2.5 times average), drug abuse (3.8 times average), and antisocial behavior (4.3 times average) (MacMillian, 2001). Children who have experienced chronic maltreatment and the resulting Complex Trauma are also at significant risk for a variety of neuropsychological, behavioral, cognitive, emotional, interpersonal, and psychobiological disorders (Cook et al. 2005; van der Kolk, 2005).

Left untreated, children who have been abused and neglected may become adults whose ability to develop and maintain healthy relationships is deeply damaged.

Without placement in an appropriate permanent home and effective treatment, a maltreated child's condition may worsen. Many children with Complex Trauma and attachment disorders develop borderline personality disorder or antisocial personality disorder as adults (Allan, 2001; Andrews, Varewin, Rose, & Kirk, 2000). The effective treatment of such children is a public health concern (Walker, Goodwin, & Warren, 1992).

Complex Trauma

Complex Trauma may be defined as chronic early maltreatment occurring within a caregiving relationship. Each of these dimensions distinguishes Complex Trauma from posttraumatic stress disorder. The trauma occurs early, within the first few years of life. It is chronic rather than being a single incident such as a natural disaster, rape, or combat. Finally, it occurs within the caregiving relationship—and this is the primary factor that makes it so disruptive to later development. When a person is threatened, two distinct and biologically based systems are activated. The first is the attachment system, which can be understood as a proximity-seeking system. When a person is threatened, the attachment system is activated and attachment (proximityseeking) behaviors become evident. The person will seek closeness to the preferred caregiver or secure base that gives the person a sense of safety and security. The second system activated is the fight-flight-freezeappeasement system, which stimulates the person to flee the threat. So, if the source of threat is the primary caregiver, two conflicting systems operate simultaneously. The attachment system moves the child to get closer to the caregiver, while the fightflight-freeze-appeasement system leads the child to move away from the threat (in this case, also the caregiver). This is a bit like driving your car with your foot on the brake and accelerator at the same time. When this conflicted condition is chronic, it leads to significant developmental disruptions.

Children and adolescents with Complex Trauma require an approach to treatment that focuses on several dimensions of impairment (Cook et al., 2005). Chronic maltreatment and the resulting complex trauma cause impairment in a variety of vital domains, including:

- Self-regulation
- Interpersonal relating, including the capacity to trust and secure comfort
- Attachment
- Biology, resulting in somatization and health problems (Brown et al., 2010; Dube, Fairweather, Pearson, Felitti, Anda, & Croft, 2009; Anda, Brown, Dube, Bremner, Felitti, & Giles, 2008; Corso, Edwards, Fang, & Mercy, 2008; Chapman, Dube, & Anda, 2007; Anda et al., 2006)
- Affect regulation
- Increased use of defensive mechanisms, such as dissociation
- Behavioral regulation
- Cognitive functions, including the regulation of attention, interest, memory, and other executive functions
- Self-concept

Dyadic Developmental Psychotherapy addresses all these domains of impairment (Becker-Weidman, 2010; Becker-Weidman, 2011; Becker-Weidman & Shell, 2005/2008).

What distinguishes Dyadic Developmental Psychotherapy from other methods of clinical work with children is the strong emphasis on maintaining an intersubjective relationship with the child, deep acceptance of the child's affect and experience, nonjudgmental curiosity about the meaning the child has given to the events of his or her life, and greater emphasis on experience and process rather than verbalization and content. The practice of Dyadic Developmental Psychotherapy requires the clinician to become affectively attuned to the parent and child, maintain joint attention, and share congruent intentions for their together. Dyadic Developmental Psychotherapy requires a greater use of self—both in the here-and-now experience of the child and in the expression of that experience to the child—than do cognitivebehavioral psychotherapy, behavioral approaches, or strategic or structural family therapy interventions.

Effects on Development

A large body of literature describes the effects of early maltreatment on later child development, behavior, and functioning. Children reared in orphanages show a significant cognitive delay of eight IQ points when compared with similar children who are placed in foster care or raised with their biological parents. "These results point to the negative sequelae of early institutionalization" (Nelson, Zeanah, Fox, Marshall, Smyke, & Guthrie, 2007, p. 1937).

Early interpersonal experiences have a profound impact on the brain because the brain pathways responsible for social perception are the same pathways that integrate such functions as the creation of meaning, the regulation of body states, the regulation of emotion, the organization of memory, and the capacity for interpersonal communication and empathy (Siegel, 2002). Stressful experiences that are overtly traumatizing may cause chronic elevated levels of neuro-endocrine hormones such as cortisol (Siegel, 2002). High levels of these hormones can cause permanent damage to the hippocampus, which is critical for memory (McEwen, 1999). Maltreatment during early childhood can cause vital regions of the brain to develop improperly, leading to a variety of physical, emotional, cognitive, and mental health problems (United States Department of Health and Human Services, 2001, 2005, 2007). Impairments in memory functions, executive functions, behavioral regulation, emotional regulation, defensive functions, biology, and self-concept can occur.

Becker-Weidman (2009) conducted a descriptive study to measure the effects of such chronic trauma on several domains of functioning, using children with histories of Complex Trauma and a diagnosis of reactive attachment disorder, and found substantial developmental delays. The children showed delays in the domains of communication, daily living skills, and socialization. The average adaptive behavior composite score for the children in this study yielded a developmental age (age equivalency) of 4.4 years, whereas the average chronological age was 9.9 years. Their average ageequivalent level was low to moderately low. The older children (mean age 14) had a mean adaptive composite standard score of 67.7; the children in the younger group (mean age 5.75) had a mean adaptive composite score of 78.8. A t-test (two-tailed) results in t = 3.667, p < = 0.0007, showing that the older children are statistically significantly more disturbed than the younger group. If we compare the maladaptive behavior indices for each group, we observe similar findings (t = -2.03, p < = 0.05).

The children in the study had significant delays of more than five years in adaptive behavior. Their level of impairment was even more substantial than that of the Vineland normative group identified as the emotional/behavioral disturbance sample.

The language delays in the receptive and expressive domains suggest that parents, teachers, and providers must be particularly careful to find out whether the child actually understands what is being discussed. In addition, because expressive language delays are especially large, asking the child to further elaborate on a situation, experience, or feeling may lead to frustration for both child and parent, as the child may not be able to articulate as clearly as the parent would expect based on the child's chronological age.

The delays in daily living skills suggest that parenting the child based on the developmental age may be most helpful, and significantly reduce the parents' and child's frustration. When a parent tells a child to "act your age"—meaning the child's chronological age—the parent may be asking the impossible for a child showing this level of delay. Parenting the child at the child's adaptive behavioral level may allow the child and parent to develop a relationship with less stress and conflict, enabling the normal developmental processes to become engaged and allowing the child to "catch up" in development.

Many of these children have poor hygiene; note the low average personal subdomain age-equivalent score of 4.6 years for the nearly 10-year-old average child in this study. Expecting such a child to be able to properly wash or brush teeth frequently leads to battles between parent and child. While the parents often become frustrated with the child's perceived lack

of compliance, the child feels frustrated by being asked to do something that is beyond his or her ability at that time. Having the parent engage in the task with the child, making it an enjoyable, mutually shared experience, can be therapeutic by reducing conflict and stress and improving the quality of the parent/child relationship. The shift from "compliance" to "teaching/helping" can have a very positive effect on the relationship and the child's functioning.

The adaptive behavior delays in the socialization domain are especially significant (an age-equivalent score of 3.6 years). For the child in school, a regular socialization group in which the school social worker, counselor, or psychologist can observe and coach may be particularly helpful. Merely telling the child how to act or play may be ineffective, for several reasons. First, the age-equivalent score is so low that such a cognitive intervention may not be understood. Instead, focusing on practicing prosocial behaviors in vivo may be much more effective in making the activity an implicit memory-based and muscle-based skill. Second, the language delays may make talk-based interventions ineffective. Close supervision in social situations allows the parent, teacher, or counselor to intervene before a negative behavior has escalated too far. In addition, the "teaching" that can occur when interventions are done in the moment may be more effective for longer-term learning. Many of these children did not receive such age-appropriate supervision and teaching during their early ages, and cannot make use of cognitively based suggestions until they have incorporated skills learned in emotional and interpersonal contexts.

Dyadic Developmental Psychotherapy

The basic principles of Dyadic Developmental Psychotherapy (Becker-Weidman, 2010; Becker-Weidman, 2011; Becker-Weidman & Hughes, 2008; Hughes, 2004, 2005, 2007; Becker-Weidman & Shell, 2005/2008) are summarized in the following list:

1. Confidence that both the caregivers' and therapists' own attachment strategies are organized and resolved is present before

- treatment of the child begins. Previous research (Dozier, Stovall, & Albus, 2008; Tyrell, Dozier, Teague, & Fallot, 1999) has shown the importance of the caregivers' and therapists' state of mind for the success of interventions.
- 2. The therapist and caregiver provide the intersubjective experiences for the child that are seldom present in situations of abuse and neglect. These intersubjective experiences are characterized by shared affect(attunement), joint focus of awareness attention, and complementary and intentions. Intersubjective experiences are the primary means whereby the infant and young child learn about self, other, and the world (Trevarthen, 2001). Intrafamilial trauma significantly disrupts the development of intersubjectivity and increases the risk that the child will be unable to create coherent meaning for many events, especially traumatic ones.
- 3. Use of PACE and PLACE. These acronyms describe the "attitude" of the therapist and caregiver. PACE refers to the therapist setting a healing pace to therapy by being playful, accepting, curious, and empathic. With the PACE technique, the therapist is able to both generate and regulate, through empathy (and playfulness when appropriate), the emerging affect that is associated with the events being explored. Through an accepting and curious stance, the therapist is also able to facilitate an open, reflective attitude to reorganization of the experience of these events. PLACE refers to the parent creating a healing environment by being playful, loving, accepting, curious, and empathic. These ideas are described more fully in Becker-Weidman (2010), Becker-Weidman (2011), Becker-Weidman and Shell (2005/2008), and Hughes (2004).
- 4. The inevitable misattunements and conflicts that arise in interpersonal relationships are directly addressed and then repaired through the ongoing qualities of the relationship (PACE). The need for interactive repair is especially important because the themes being

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explored are often characterized by shame and fear. Repair both helps with affect regulation and directly addresses the child's convictions that he must face stressful events alone or that any conflict will lead to abandonment. The attachment figures—parent and therapist—are responsible for the initiation of repair, rather than the child.

Clinical Examples

This section uses transcripts from actual treatment sessions to illustrate some of the components and phases of Dyadic Developmental Psychotherapy.

Emily

The first transcript is part of an initial demonstrates assessment, and exploration can occur even in the first few minutes of meeting the client. (The session can be viewed on DVD; see Hughes & Becker-Weidman, 2010. This construct is also illustrated in Becker-Weidman & Shell, 2005/2008, pp. 57–68). The section reproduced here occurred about 10 minutes into our very first meeting as part of an assessment. "Emily" was 13 years old and was in secure detention because she had been aggressive toward her mother, hitting and shoving her, and repeatedly ran away from home. The girl spent 10 years in an Eastern European orphanage and then was adopted by a couple. A year after the adoption, the father died as the result of a chronic illness. Before her adoption, Emily, who had been abandoned at birth, had rarely been outside of the orphanage, did not attend school on a regular basis, and was largely left to fend for herself. She was brought to my office from secure detention in a jumpsuit and handcuffs that the officer would not remove for security reasons.

Emily's experience of profound neglect in the orphanage left her without the ability to describe her internal experiences and emotions. This deficit was the primary cause of her impulsivity and her inability to regulate her behavior and emotions.

Art: And now you're not living with her [the adoptive mother]?

Emily: No.

Art: What's that like for you?

Emily: Good.

Art: [I am surprised that she likes not living with her mother and being in secure detention, and so I want to understand this and her experience more deeply.] Good? Do you like living in secure detention better than living with her?

Emily: I don't know. I feel better than at home because I ... if I do go home, I just know I'm going to end up in one of these places again and doing the same thing.

Art: You think so? How come? [We now appear to have a beginning alliance and in the next few exchanges we enter into the exploration phase.]

Emily: I just know I will.

Art: But how do you know that? What makes you say that? I'm not disagreeing with you, Emily. I just want to understand what makes you think that way. [In this remark I am sharing with Emily my experience and my thinking as part of the affective/reflective dialogue we are having. I want her to understand that my question doesn't mean I disagree with her; rather, it means that I am deeply interested in her experience.]

Emily: I don't know. My sister and my mom annoy me a lot. They don't take anger real well, but the weird thing is, I don't know when I'm getting angry. I just keep going until like something happens.

Art: What? You mean you're surprised when you get that angry? [Now I am beginning to understand her experience. Emily is unaware of her internal world and emotional states and that leads to her being reactive and aggressive, I surmise.]

Emily: Yeah, because I mean, I don't have any feelings or anything. When I just get angry, I just get angry.

Art: So you're kind of moving along and then all of a sudden you are angry. Oh, I see. [This remark reflects the empathy element of PACE, as well as our beginning to cocreate a new meaning for Emily regarding her behavior.]

Emily: Yeah, but I just keep going on, I don't always realize I'm angry. I never really do, I just fight. [This reflective comment by Emily (part of our affective/reflective dialogue within the intersubjectivity of the exploration phase) could happen because of our building an alliance in our first few minutes together. I believe it demonstrates her experience of me as someone deeply interested and concerned about her in a nonjudgmental manner.]

Art: Hm. Mm-hm.

Emily: ... unless I'm doing it to someone I really like. [Here we see another very interesting reflective remark by Emily that I decide to explore further by focusing on the relationship dimension of this experience. My next comment illustrates the lead part of follow-lead-follow.]

Art: So do you have anybody who you really like?

Emily: Yeah.

Art: Who do you feel closest to?

Emily: In the world?

Art: Yeah.

Emily: My aunt.

Art: Your aunt ...

Emily: My mom's mom, uh, sister.

Art: Your mother's sister, oh.

Emily: Yeah. Her name is Samantha. [It is important to note that Emily would see Samantha very infrequently, perhaps five or six times a year. Although Emily has been in secure detention for several weeks, Samantha has not visited once, whereas Emily's mom has visited her every day.]

Art: Mm-hm. And anybody else, or is that it? Emily: [shakes head no] That's it.

Iessica

"Jessica" is 11. She was adopted when she was about five years old. She is developmentally delayed, with an IQ of about 79. What brought the family into treatment was her aggression. Jessica would hit and punch her mother, hit her sister, and hit others. Jessica would get physically aggressive at school with teachers and other

students. In the first segment you will read about Jessica hitting her mother during the session and how her mother responds in a re-regulating manner. The mother *very*, *very* effectively manages this, especially the way she makes sure the situation does not escalate.

[Jessica is seated next to her mother on the couch, and is trying to hit, scratch, and kick her.]

Mom: [softy, gently, but firmly] Jessica, now stop it. That's enough. Come on now ...

Jessica: No! No! No! No!

Mom: You need to calm down. I know you're angry.

Jessica: [standing up, she starts pulling away from her mother, who is holding Jessica's wrists]

Mom: Now, is this a time when you have me confused with Sarah? [The mom is referring to Jessica's birth mother, Sarah. Jessica's confusing Mom with Sarah, on an affective basis, was a recurrent theme during treatment. Gradually Jessica became better able to recognize this. This helped Jessica re-create a narrative that could make sense of her behavior in a nonblaming, nonjudgmental way. It also helped the mom understand her daughter. That understanding allowed the mom to get less disturbed and upset by this kind of behavior. In this event, the mom asks Jessica if Jessica is confusing her (the mom) with Sarah. She does not necessarily expect an answer; she is just trying to talk out loud and reflect on the experience and help her daughter learn how to do that as well.]

Jessica: [standing and trying to pull her arms away from her mother, who is seated and holding onto Jessica's wrists] No, no, let go!

Mom: [softly, while looking up into Jessica's eyes with calm assurance] Come on. Come on.

Jessica: Let go! Let go!

Mom: [gently and quietly] Sit down. I'll let go when you sit down and relax.

[Jessica pulls her arms away and drops

down on the seat next to the mom.]

This segment highlights how important it is to co-regulate the child's affect and that this can be accomplished, in part, by remaining calm. The mom's calm helps regulate Jessica. Another point shown here is how important it is to focus on the primary objective (calming Jessica, rather than mere compliance with the statement, "I'll let go when you relax"). Jessica actually yanks her hands away and sits down; that could have turned into a really large battle if the mom had hung on and insisted, "No, I said I won't let go until you calm down." But the mom recognized that it was probably okay: Although Jessica was not doing exactly what she had been asked to do, she was beginning to calm down. The mom was safe, so she let go and Jessica sat down and then began to get herself organized. This is a nice example of how to manage that kind of beginning dysregulation you sometimes see with children at home and in the office.

Evidence Base

Craven and Lee (2006) determined that Dyadic Developmental Psychotherapy is a supported and acceptable treatment (category 3 in a six-level system). However, their review was conducted only on results from a partial preliminary presentation of an ongoing follow-up study, which was subsequently completed and published in 2006 (Becker-Weidman, 2006b). This initial study compared the results of Dyadic Developmental Psychotherapy with results from other forms of treatment, called "usual care," one year after treatment ended. A second study extended these results out to four years after treatment ended (Becker-Weidman, 2006a). Based on the Craven and Lee classifications (Saunders, Berliner, & Hanson, 2004), inclusion of those studies would have resulted in Dyadic Psychotherapy Developmental classified in evidence-based Category 2, "Supported and probably efficacious."

Two empirical studies have compared the treatment outcome of Dyadic Developmental Psychotherapy with a control group that received other treatments from other providers at different clinics (Becker-Weidman, 2006a, 2006b).

The first study (Becker-Weidman, 2006b) compared a treatment group (N = 34), all of whom received Dyadic Developmental Psychotherapy, with a control group (N =30) whose members received other forms of treatment at locations different from the test site by other providers. The two groups were not different on a variety of demographic and clinical measures. All children in the study met the DSM-IV criteria for reactive attachment disorder and the clinical criteria for Complex Trauma. The two groups of children all had clinically significantly elevated scores on the Child Behavior Checklist. This study found that, one year after treatment ended, children who received Dyadic Developmental had Psychotherapy clinically statistically significantly lower scores on the Child Behavior Checklist and that these scores were all in the normal range. Children in the control group showed no statistically or clinically significant changes in the outcome measures.

The second study (Becker-Weidman, 2006a) followed this same group of 64 children and measured the outcome of treatment, using the Child Behavior Checklist, four years after treatment ended. This study examined the effects of Dyadic Developmental Psychotherapy four years after treatment ended on children with trauma-attachment disorders who met the DSM-IV criteria for Reactive Attachment Disorder. The treatment group was composed of 34 subjects who received Dyadic Developmental Psychotherapy; the 30 control group members received other treatment from other providers at other clinics. All children were between the ages of 5 and 16 when the study began. It was hypothesized that symptoms of attachment aggressive disorder, and delinguent behaviors, social problems and withdrawal, anxiety and depressive problems, thought problems, and attention problems would be reduced among children who received Dyadic Developmental Psychotherapy, as measured by the Child Behavior Checklist. In fact, significant reductions were achieved in all measures studied. The results were achieved in an average of 23 sessions over 11 months. These findings continued for an average of 3.9 years after treatment ended

for children between the ages of 6 and 15 years. There were no improvements in the control group members, who were retested an average of 3.3 years after the evaluation was completed. Their scores remained in the clinical range and actually became statistically significantly worse on several of the Child Behavior Checklist scales: Anxious/Depressed, Attention Problems, Rule Breaking Behavior, and Aggressive Behavior.

The results are particularly salient because 82% of the treatment-group subjects and 83% of the control-group subjects had previously received some other form of treatment, with an average of 3.2 prior treatment episodes. In this study, a treatment episode was defined as a series of multiple treatment sessions beginning with an assessment, continuing with several treatment sessions over several months, and ending with termination. This past history of unsuccessful treatment further underscores the importance of these results in demonstrating the effectiveness and efficacy of Dyadic Developmental Psychotherapy as a treatment for children with trauma-attachment problems. In addition, 100% of the control-group subjects received "usual care" (family therapy, individual therapy, play therapy, or residential treatment, for example) from other providers, but showed no measurable change in the outcome variables measured.

Implications

Because reactive attachment disorder and Complex Trauma are relationship difficulties, it is not surprising that the area in which the greatest difference between chronological and developmental age is found is the socialization domain. The older children had been without effective treatment for a longer period than the younger children, so their delays and difficulties may have worsened over time. One clinical implication of this is that relationship-based treatments, such as family therapy and those grounded in attachment therapy, may be more effective in remediating these deficits than individual therapies.

Educators may benefit from understanding that many of the problem

behaviors they see at school with children such as those in this study stem from Complex Trauma and the resulting delays in adaptive behavior. Recognizing the student's actual level of adaptive functioning, instead of merely the child's chronological age, can help the teacher adapt the lesson plan, level of material, and means of communicating the material (based on the child's receptive language level and cognitive development).

Children who have reactive attachment disorder or Complex Trauma often require special education services. Under the Individuals with Disabilities Education Improvement Act of 2004 (a reauthorization of Public Law No. 94-142), states are required to provide a free and appropriate public education for all children, regardless of disability. The guidelines for assessing children with disabilities mandate a measurement of adaptive behavior. The present study provides data indicating the extent of delay and impairment that such children experience. Children in the child welfare system may require special education services to address these delays. Child welfare workers and school personnel should be aware of these factors and consider adaptive delays when making placement decisions for such children. Smaller class size, longer time to complete work, recognition of the child's developmental age, and matching of expectations to developmental age are other recommendations for educators.

Foster parents require adequate training to understand the nature, extent, and implications of their child's adaptive behavior impairments. Too often, foster and adoptive parents report not being adequately trained or not being made aware of the adaptive functioning of their children and how this may affect the child's functioning in the home, with peers, and in school. It would be helpful to add a unit on adaptive functioning, and how it is negatively affected by chronic early maltreatment in a caregiving relationship, to model approach to partnerships in parenting (MAPP) and group preparation and selection (GPS) training for foster and adoptive parents. Such training might help parents better understand and help their children, and could lead to fewer placement disruptions.

Finally, appropriate evidence-based treatment, such as with Dyadic Developmental Psychotherapy, is essential for children with Complex Trauma or a diagnosis of reactive attachment disorder. The costs to society of providing less than adequate care, in terms of later health care burdens, mental health costs, and associated social costs, are enormous. The importance of providing effective and empirically validated treatments, such as Dyadic Developmental Psychotherapy, also suggest that appropriate training of mental health professionals and child welfare staff is imperative.

References

- Allen, J. G. (2001). *Traumatic relationships and serious mental disorders*. New York, NY: John Wiley & Sons.
- Anda, R. F., Brown, D. W., Dube, S. R., Bremner, J. D., Felitti, V. J., and Giles, W. H. (2008). Adverse childhood experiences and chronic obstructive pulmonary disease in adults. *American Journal of Preventive Medicine*, 34(5), 396–403.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., Dube, S. R., and Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience*, 256(3), 174-186.
- Andrews, B., Brewin, C., Rose, S., and Kirk, M. (2000). Predicting PTSD symptoms in victims of violent crime: The role of shame, anger and childhood abuse. *Journal of Abnormal Psychology*, 109(1), 69–73.
- Becker-Weidman, A. (2006a). Dyadic Developmental Psychotherapy: A multiyear follow-up. In S. M. Sturt (Ed.), *New* developments in child abuse research (pp. 43– 60). New York, NY: Nova Science Publishers Press
- Becker-Weidman, A. (2006b). Treatment for children with trauma-attachment disorders: Dyadic Developmental Psychotherapy.

- Child & Adolescent Social Work Journal, 23(2), 147–171.
- Becker-Weidman, A. (2009). Effects of early maltreatment on development: A descriptive study using the Vineland Adaptive Behaviors Scales-II. *Child Welfare*, 88(2), 137–161.
- Becker-Weidman, A. (2011a). Dyadic Developmental Psychotherapy: Essential practices and methods. Lanham, MD: Jason Aronson.
- Becker-Weidman, A., (2011b). The Dyadic Developmental Psychotherapy Casebook. Lanham, MD: Jason Aronson.
- Becker-Weidman, A., and Hughes, D. (2008). Dyadic Developmental Psychotherapy: An evidence-based treatment for children with complex trauma and disorders of attachment. *Child & Family Social Work*, 13(3), 329–337.
- Becker-Weidman, A., and Shell, D. (Eds.). (2005). Creating capacity for attachment: Dyadic Developmental Psychotherapy in the treatment of trauma-attachment disorders. Oklahoma City, OK: Wood 'N' Barnes.
- Brown, D. W., Anda, R. F., Felitti, V. J., Edwards, V. J., Malarcher, A. M., Croft, J. B., and Giles, W. H. (2010). Adverse childhood experiences are associated with the risk of lung cancer: A prospective cohort study. *BMC Public Health* 10:20.
- Carlson, E. A. (1998). A prospective longitudinal study of attachment disorganization/disorientation. *Child Development*, 69(4), 1107–1128.
- Carlson, V., Cicchetti, D., Barnett, D., and Braunwald, K. G. (1989). Finding order in disorganization: Lessons from research on maltreated infants' attachments to their caregivers. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 494-528). New York, NY: Cambridge University Press.
- Chapman, D. P., Dube, S. R., and Anda, R. F. (2007). Adverse childhood events as risk factors for negative mental health outcomes. *Psychiatric Annals*, *37*(5), 359–364.
- Cicchetti, D., Cummings, E. M., Greenberg, M. T., & Marvin, R. (1990). An organizational

- perspective on attachment beyond infancy: Implications for theory, measurement, and research. In M. T. Greenberg, D., Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 3-49). Chicago, IL: University of Chicago Press.
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., et al. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390–398.
- Corso, P. S., Edwards, V. J., Fang, X., and Mercy, J. A. (2008). Health-related quality of life among adults who experienced maltreatment during childhood. *American Journal of Public Health*, 98(6), 1094–1100.
- Craven, P. A., and Lee, R. E. (2006). Therapeutic interventions for foster children: A systematic research synthesis. *Research on Social Work Practice*, *16*(3), 287–304.
- Dozier, M., Stovall-McClough, K. C., & Albus, K. E. (2008). Attachment and psychopathology in adulthood. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 718–744). New York, NY: Guilford Press.
- Dube, S. R., Fairweather, D., Pearson, W. S., Felitti, V. J., Anda, R. F., and Croft, J. B. (2009). Cumulative childhood stress and autoimmune diseases in adults. *Psychosomatic Medicine*, 71(2), 243–250.
- Finzi, R., Cohen, O., Sapir, Y., and Weizman, A. (2000). Attachment styles in maltreated children: A comparative study. *Child Psychiatry and Human Development*, 31(2), 113–128.
- Hughes, D. (2004). An attachment-based treatment of maltreated children and young people. *Attachment & Human Development*, 6(3), 263–278.
- Hughes, D. (2005). The development of Dyadic Developmental Psychotherapy. In A. Becker-Weidman & D. Shell (Eds.), *Creating capacity for attachment* (pp. vii–xvii). Oklahoma City, OK: Wood 'N' Barnes.
- Hughes, D. (2007). Attachment focused family therapy. New York, NY: W.W. Norton & Company.
- Hughes, D., and Becker-Weidman, A. (2010).

- An introduction to Dyadic Developmental Psychotherapy [DVD].
- Lyons-Ruth, K., and Jacobvitz, D. (2008). Attachment disorganization: Unresolved loss, relational violence and lapses in behavioral and attentional strategies. In J. Cassidy & P.R. Shaver (Eds.), Handbook of attachment: Theory, research, and clinical applications (2nd ed., pp. 666–697). New York: Guilford Press.
- MacMillan, H. L., Fleming, J. E., Streiner, D. L., Lin, E., Boyle, M. H., Jamieson, E., et al. (2001). Childhood abuse and lifetime psychopathology in a community sample. *The American Journal of Psychiatry*, 158(11), 1878-1883.
- Main, M., and Hesse, E. (1990). Parents' unresolved traumatic experiences are related to infant disorganized attachment status: Is frightened and/or frightening parental behavior the linking mechanism? In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), Attachment in the preschool years: Theory, research, and intervention (pp. 161-184). Chicago, IL: University of Chicago Press.
- McEwen, B. (1999). Development of the cerebral cortex: XIII. Stress and brain development: II. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38(1), 101–103.
- Nelson, C., Zeanah, C., Fox, N., Marshall, P., Smyke, A., and Guthrie, D. (2007). Cognitive recovery in socially deprived young children: The Bucharest early intervention project. *Science*, 318(5858), 1937–1940.
- Prino, C. T., and Peyrot, M. (1994). The effect of child physical abuse and neglect on aggressive, withdrawn, and prosocial behavior. *Child Abuse & Neglect*, 18(10), 871–884.
- Robins, L. N. (1978). Sturdy childhood predictors of adult antisocial behavior: Replications from longitudinal studies. *Psychological Medicine*, 8(4), 611–622.
- Saunders, B. E., Berliner, L., and Hanson, R. F. (Eds.) (2004). *Child physical and sexual abuse: Guidelines for treatment (Revised Report: April 26, 2004).* Retrieved September 6, 2010, from http://academicdepartments.musc.edu/ncvc/resources_prof/OVC_guidelines04-26-04.pdf

- Schreiber, R., and Lyddon, W. J. (1998). Parental bonding and current psychological functioning among childhood sexual abuse survivors. *Journal of Counseling Psychology*, 45(3), 358–362.
- Siegel, D. J. (2001). Toward an interpersonal neurobiology of the developing mind: Attachment relationships, "mindsight," and neural integration. *Infant Mental Health Journal*, 22(1/2), 67–94.
- Solomon, J., and George, C. (Eds.). (1999). Attachment disorganization. New York, NY: Guilford Press.
- Trevarthen, C. (2001). Intrinsic motives for companionship in understanding: Their origin, development, and significance for infant mental health. *Infant Mental Health Journal*, 22(1/2), 95–131.
- Tyrrell, C., Dozier, M., Teague, G. B., and Fallot, R. D. (1999). Effective treatment relationships for persons with serious psychiatric disorders: The importance of attachment states of mind. *Journal of Consulting & Clinical Psychology*, 67(5), 725–733.

- United States Department of Health and Human Services, Administration on Children, Youth, and Families. (2001). *In focus: Understanding the effects of maltreatment on early brain development.* Washington, DC: U.S. Government Printing Office.
- United States Department of Health and Human Services, Administration on Children, Youth, and Families. (2005). *Child maltreatment* 2003. Retrieved September 6, 2010, from www.acf.hhs.gov/programs/cb/pubs/cm03/index.htm
- United States Department of Health and Human Services, Administration on Children, Youth and Families. (2007). *Child maltreatment* 2005. Washington, DC: U.S. Government Printing Office.
- van der Kolk, B. A. (2005). Developmental trauma disorder. *Psychiatric Annals*, 35(5), 401–408.
- Walker, B., Goodwin, N. J., and Warren, R. C. (1992). Violence: A challenge to the public health community. *Journal of the National Medical Association*, 84(6), 490–496.

Arthur Becker-Weidman, Ph.D., is a Diplomate in Child Psychology and Forensic Psychology, the American Board of Psychological Specialties. He is a Registered Clinician with the Association for the Treatment and Training in the Attachment of Children and is a Certified Therapist, Consultant, and Trainer of Dyadic Developmental Psychotherapy®. Dr. Becker-Weidman has edited and authored four books: Creating Capacity for Attachment (2005/2008), Attachment Parenting (2010), Dyadic Developmental Psychotherapy: Essential Practices & Methods (2010), and The Dyadic Developmental Psychotherapy Casebook (2011). He has four DVD's: Assessing Trauma and Attachment Disorders, Assessing Parent Capacity, An Introduction of Dyadic Developmental Psychotherapy, and Principles of Attachment Parenting. Dr. Becker-Weidman has over a dozen publications in professional peer-reviewed journals. Dr. Becker-Weidman is on the Board of Directors of the Association for the Treatment and Training in the Attachment of Children where he is Vice-President for Clinical Issues, serves on the Research Committee and Training Committee, and chairs the Registration Committee. He is an adjunct Clinical Professor at the State University of New York at Buffalo. Dr. Becker-Weidman is President of the Board of the Dyadic Developmental Psychotherapy Institute®©. He is on the Board of Directors of the NY chapter of the American Professional Society on the Abuse of Children and serves on several committees. Dr. Becker-Weidman provides training and workshops to parents, professionals, and governments across the U.S. and internationally (Australia, Bermuda, Canada, Czech Republic, Finland, Singapore, and Slovakia). He can be reached at AWeidman@Concentric.net or Center For Family Development, 5820 Main Street, suite 406, Williamsville, NY 14221