

TDMHSAS BEST PRACTICE GUIDELINES

Disturbances/Disorders of Attachment in Children and Adolescents

Workgroup Members: Patti van Eys, PhD, Volunteer State Health Plan – Chairperson; Linda Ashford, PhD, Vanderbilt University Monroe Carrel Children’s Hospital; Kristin Dean, PhD, University of Tennessee-Cherokee Health Systems Center of Excellence; Janice Davidson, LCSW, Professional Care Services of West Tennessee, Inc.; and Dana Casey, LAPSW, Amerigroup Real Solutions.

1. Introduction

In the normal course of events children become appropriately attached to their caregivers. From birth to three months of age infants have only a limited ability to discriminate among attachment figures, however by three to six months of age, infants smile socially and carry on conversations with their attachment figures consisting of cooing and intense looking with mutual eye contact. Usually, by eight to nine months of age infants express clear preferences for important attachment figures. From the end of the first year until approximately three years of age, children insist on maintaining close proximity with their caregivers. They use their important attachment figures as a **secure base** from which they can explore the world and a **safe haven** to which they can return when distressed, fearful, hungry, or tired. After three years of age, children use communication and their interactions with caring, sensitive caregivers to develop a keen sense of self and an important sense of being cared for. This allows children to become confident that they are worthy of attention and affection, laying the groundwork for positive future relationships. Secure attachment is seen as a protective factor for healthy development generally.

There are individual differences in how children develop attachment. Ainsworth and colleagues (1978) developed the Strange Situation Procedure (SSP) which has developed into the gold standard for the assessment of infant attachment, delineating how children differ. In this procedure, the child’s behavior is rated during periods with the caregiver, with a stranger, alone, and upon reunification with the caregiver. During this mildly stressful situation, the assessment focuses on the child’s attempts to seek contact with the caregiver, the physical proximity of the child to the caregiver, the child’s resistance to or avoidance of the caregiver, and the child’s level of distress. From these observations a child’s attachment behavior is given a classification rating. Children with **secure attachment** use caregivers as a secure base and return quickly to them after they have been separated. Children who can be classified as having **insecure-avoidant attachment** relationships are oblivious to a caregiver’s presence and may not seek proximity nor greet the caregiver upon her return after separation. These caregivers are often

rejecting in their general style of providing care. Children who are classified as **insecure-resistant attachment** seem preoccupied with their caregivers but they are not comforted by the caregivers' return after separation. They may rush to the caregiver yet quickly struggle to get away remaining distressed and angry. These caregivers are often inconsistent when providing care for their children. Children with **disorganized and disoriented attachment** relationships lack a coherent way of dealing with stressful events. They may be calm one minute and angry the next. They may begin to approach the caregiver and then dart away or freeze in apprehension. In some cases, these children may show fear of the caregiver. These caregivers are often abusive and neglectful. These children have notable behavioral/psychiatric problems. Disorganized attachment is seen as a risk factor for poor development generally.

Reactive Attachment Disorder (RAD) is a disturbance in the attachment relationship between a child and the caregiver and describes a constellation of aberrant attachment and other social behavioral abnormalities. This disturbance directly results from pathogenic care which is characterized by persistent neglect, persistent disregard of the child's basic needs, repeated changes of primary caregivers that prevent formation of stable attachments, or rearing in institutions where child/caregiver ratios limit opportunities for selective attachments (American Psychiatric Association, 2000; World Health Organization, 1992). An attachment disorder is warranted when a child who is *developmentally capable* of forming attachments, with a minimum cognitive age of 9 months, does not because of an aberrant caregiving environment.

Common features of RAD found across the DSM-IV-TR and the ICD-10 diagnostic manuals include: 1) aberrant social behavior that is cross contextual, 2) pathogenic care, and 3) two clinical subtypes -- indiscriminately social (e.g., they may show excessive familiarity with relative strangers or show a lack of selectivity in their attachment choices and emotionally withdrawn (e.g., persistent failure in their ability to initiate or respond to most social interactions). ICD-10 divides the subtypes into two distinct disorders, Reactive Attachment Disorder of Childhood (RAD), describing the withdrawn subtype, and Disinhibited Attachment Disorder of Childhood (DAD), describing the disinhibited subtype.

References

Ainsworth, M.D.S, Blehar, M.S., Waters, E., & Wall, S (1978), *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ, Erlbaum.

American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders*, (4th edition, text revision). Washington, DC: Author.

World Health Organization (1992). *The ICD-10 Classification of Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines*. Geneva, World Health Organization.

2. Diagnostic Criteria and Diagnostic Issues

Formal Diagnostic Criteria for Reactive Attachment Disorder of Infancy or Early Childhood from the Diagnostic and Statistical Manual -4th edition-text revision (DSM-IV-TR; APA, 2000):

A. Markedly disturbed and developmentally inappropriate social relatedness in most contexts, beginning before 5 years of age, as evidenced by (1) or (2):

- (1) Persistent failure to initiate or to respond in a developmentally appropriate fashion to most social interactions, as manifest by excessively inhibited, hypervigilant, or highly ambivalent and contradictory responses (e.g., the child may respond to the caregiver with a mixture of approach, avoidance, and resistance to comforting or may exhibit frozen watchfulness).
- (2) Diffuse attachments as manifest by indiscriminate sociability with marked inability to exhibit appropriate selective attachments (e.g., excessive familiarity with relative strangers or lack of selectivity in choice of attachment figures).

B. The disturbance in Criterion A is not accounted for solely by developmental delay (as in Mental Retardation) and does not meet criteria for a Pervasive Developmental Disorder.

C. Pathogenic care as evidenced by at least one of the following:

- (1) Persistent disregard of the child's basic emotional needs for comfort, stimulation, and affection.
- (2) Persistent disregard of the child's basic physical needs.
- (3) Repeated changes of primary caregiver that prevent formation of stable attachments (e.g., frequent changes in foster care).

D. There is a presumption that the care in Criterion C is responsible for the disturbed behavior in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).

Specify type:

Inhibited type: if Criterion A1 predominates in the clinical presentation.

Disinhibited type: if Criterion A2 predominates in the clinical presentation.

Proposed Criteria for DSM-5

RAD has been more systematically researched in the past 10 years compared to the 20 years after its original description in the DSM-III (APA, 1980). In a provocative paper Zeanah & Gleason (2010) provide insightful criticism of the DSM-IV-TR conceptualization of RAD and articulate a

proposal to revise RAD criteria for inclusion in the DSM-5. They argue that: 1) limited research and small samples of children were originally used to formulate the 1980 RAD diagnostic nosology and the diagnostic criteria is confounded with non-organic failure to thrive and general trauma symptoms; 2) the RAD phenotype is insufficiently informed by developmental research on attachment; and 3) the RAD diagnosis uses vague descriptors. They conclude from the research that: 1) An alternate set of criteria (e.g., Research Diagnostic Criteria-Preschool Age (AACAP, 2003) and Diagnostic Classification: 0-3R (Zero to Three, 2005) show better validity [than DSM-IV-TR] across different populations and across different research teams; 2) the two subtypes of RAD described in DSM-IV-TR occur but are exceedingly rare and are reliably identifiable in populations of at risk children far more commonly than in low risk children; and 3) the evidence favors two distinct disorders rather than two subtypes of the same disorder. Using the composite of these research findings, Zeanah and Gleason (2010) have proposed revisions in the RAD criteria for DSM-5 that are based more on attachment behaviors than general social behaviors.

***Proposed DSM-5 Criteria for Reactive Attachment Disorder of Infancy or Early Childhood
(Zeanah & Gleason, 2010)***

A. Pattern of markedly disturbed and developmentally inappropriate attachment behaviors, evident before 5 years of age, in which the child rarely or minimally turns preferentially to a discriminated attachment figure for comfort, support, protection and nurturance. The disorder appears as a consistent pattern of inhibited, emotionally withdrawn behavior in which the child rarely or minimally directs attachment behaviors towards any adult caregivers, as manifest by both of the following:

- 1) Rarely or minimally seeks comfort when distressed.
- 2) Rarely or minimally responds to comfort offered when distressed.

B. Persistent social and emotional disturbance characterized by at least 2 of the following:

- 1) Relative lack of social and emotional responsiveness to others.
- 2) Limited positive affect.
- 3) Episodes of unexplained irritability, sadness, or fearfulness which are evident during nonthreatening interactions with adult caregivers.

C. Does not meet the criteria for Autistic Spectrum Disorder.

D. Pathogenic care as evidenced by at least one of the following:

- 1) Persistent disregard of the child's basic emotional needs for comfort, stimulation, and affection (i.e., neglect).
- 2) Persistent disregard of the child's basic physical needs.

- 3) Repeated changes of primary caregiver that prevent formation of stable attachments (e.g., frequent changes in foster care).
- 4) Rearing in unusual settings such as institutions with high child/caregiver ratios that limit opportunities to form selective attachments.

E. There is a presumption that the care in Criterion C is responsible for the disturbed behavior in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).

F. The child has a developmental age of at least 9 months.

Considerations: Proposed Reactive Attachment Disorder

Note how the proposed changes in Criterion A are to focus more specifically on absent or aberrant attachment behaviors rather than on general social behaviors. Though some have suggested that social impairment (Green, 2003) or social communication (Minnis, et al., 2006) is the core of this disorder, it appears that the absence of a selective attachment necessarily impairs social functioning, and the social behaviors improve markedly once the child is in a more favorable environment (Zeanah & Smyke, 2005). More important, making attachment the core of the disorders is supported by the validity data which were derived from investigations of multiple samples of currently and formerly institutionalized children, children in foster care, and children in impoverished groups at risk for aberrant parenting behavior (e.g., Boris, Zeanah, Larrieu, Scheeringa, & Heller, 1998; Boris, Hinshaw-Fuseler, Smyke, Scheeringa, Heller & Zeanah, 2004; Zeanah, Scheeringa, Boris, Heller, Smyke, & Trapani, 2004).

Another significant change from DSM-IV-TR occurs in the inclusion of Criterion B, which describes the documented social and emotional disturbances in children with RAD. Separating these out from the A criterion restricts the diagnosis to those children who have both clear abnormalities in attachment behaviors and the absence of a preferred attachment figure (A) and social/emotional disturbances (B).

Criterion C is virtually identical to the DSM-IV-TR Criterion B.

Criterion D has been retained but revised. Practically, criterion D poses challenges for the clinician. Pathogenic care is not always disclosed and cannot always be clearly identified in clinical assessments or evaluations because young children cannot describe their own experiences and caregivers may not be forthcoming if they are implicated in pathogenic care. Retaining Criterion D precludes making the diagnosis of RAD in children whose maltreatment is not known to the clinician. On the other hand, there are no case reports of young children exhibiting the RAD phenotype without at least a reasonable inference of serious caregiving adversity.

The revisions are intended to describe in a bit more detail what is known about the types of care that seem to predispose symptoms of RAD. These categories remain less specific than is desirable, but this challenging area of investigation has yielded limited data.

Criterion E is unchanged from Criterion D in DSM-IV-TR.

Criterion F has been added to ensure that an attachment disorder is not diagnosed in children who are developmentally incapable of demonstrating a focused attachment. Stranger wariness and separation protest in addition to selective comfort seeking are behavioral indicators of selective attachment, typically emerging between 7 and 9 months of age. Criterion B ought to differentiate between children with RAD and typically developing children less than 9 months of age, but the inclusion of Criterion F provides additional insurance in cases with some ambiguity.

***Proposed DSM-5 Criteria for Disinhibited Social Engagement Disorder
(Zeanah & Gleason, 2010)***

A. A pattern of behavior in which the child actively approaches and interacts with unfamiliar adults by exhibiting at least 2 of the following:

- 1) Reduced or absent reticence to approach and interact with unfamiliar adults.
- 2) Overly familiar behavior (verbal or physical violation of culturally sanctioned social boundaries).
- 3) Diminished or absent checking back with adult caregiver after venturing away, even in unfamiliar settings.
- 4) Willingness to go off with an unfamiliar adult with minimal or no hesitation.

B. The behavior in A. is not limited to impulsivity as in ADHD but includes socially disinhibited behavior.

C. Pathogenic care as evidenced by at least one of the following:

- 1) Persistent failure to meet the child's basic emotional needs for comfort, stimulation, and affection (i.e., neglect).
- 2) Persistent failure to provide for the child's physical and psychological safety.
- 3) Persistent harsh punishment or other types of grossly inept parenting.
- 4) Repeated changes of primary caregiver that limit opportunities to form stable attachments (e.g., frequent changes in foster care).
- 5) Rearing in unusual settings that limit opportunities to form selective attachments (e.g., institutions with high child to caregiver ratios).

D. There is a presumption that the care in Criterion C is responsible for the disturbed behavior in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).

E. The child has a developmental age of at least nine months.

Considerations: Disinhibited Social Engagement Disorder

The indiscriminately social/disinhibited RAD phenotype is proposed to be a distinct disorder. The new name is intended to describe the core of the disorder, which is less about diffuse or disinhibited attachment behaviors and more about unmodulated and indiscriminate social behavior, especially initial approaches to and interaction with unfamiliar adults.

Criterion A focuses the disorder more on aberrant social behavior rather than on disordered attachment behavior.

Criterion B is new and presumed to be necessary from several lines of evidence suggesting co-occurrence of ADHD signs and the social impulsivity that characterizes the indiscriminately social/disinhibited phenotype. It appears that one may have ADHD with socially indiscriminate behavior, and one may have socially indiscriminate behavior without ADHD, but there are often moderately strong correlations between the two symptom profiles. Thus, rather than make ADHD a rule out for Disinhibited Social Engagement Disorder, it seems more useful to direct attention to its distinction from ADHD.

Pathogenic care is retained in Criterion C as in DSM-IV-TR for the important reason that children with adequate caregiving but with conditions such as Chromosome 7 deletion and Fetal Alcohol Syndrome may demonstrate phenotypically similar behavior to those with Disinhibited Social Engagement Disorder. It is described exactly as in RAD because there is no evidence to date that one or another of the types of pathogenic care are more or less likely to lead to RAD or to Disinhibited Social Engagement Disorder.

Criterion D is retained from DSM-IV-TR for the same reasons.

Criterion E is a replication of criterion F in the RAD subtype, and has been added to ensure that an attachment disorder is not diagnosed in children who are developmentally incapable of demonstrating a focused attachment.

References

AACAP Task Force on Research Diagnostic Criteria-Preschool Age. (2003). *Research diagnostic criteria for infants and preschool children; the process and empirical support*. Journal of the American Academy of Child and Adolescent Psychiatry, 42, 1504-1512.

American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders*, (3rd edition,). Washington DC: Author.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders*, (4th edition, text revision). Washington DC: Author.

- Boris, N., Zeanah, C.H., Larrieu, J. A., Scheeringa, M.S. & Heller, S.S. (1998). *Attachment disorders in infancy and early childhood: A preliminary investigation of diagnostic criteria*. American Journal of Psychiatry, 155, 295-297.
- Boris, N., Hinshaw-Fuseler, S.S., Smyke, A.T., Scheeringa, M.S., Heller, S.S., & Zeanah, C.H. (2004). *Comparing criteria for attachment disorders: Establishing reliability and validity in high-risk samples*. *Journal of the American Academy of Child and Adolescent Psychiatry*, 43, 568-577.
- Green, J. (2003). Are attachment disorders best seen as social impairment disorders? *Attachment and Human Development*, 5, 259-264.
- Minnis, H., Marwick, H., Arthur, J., & McLaughlin, A. (2006). Reactive attachment disorder—A theoretical model beyond attachment. *European Child & Adolescent Psychiatry*, 15, 336.
- Zeanah, C.H. & Gleason, M.M. (2010). Reactive Attachment Disorder: A review for DSM-5. Washington, DC: American Psychiatric Association. Retrieved from <http://dsm5.org/ProposedRevision/Pages/proposedrevision>.
- Zeanah, C.H., Scheeringa, M.S., Boris, N., Heller, S.S., Smyke, A.T., & Trapani, J. (2004). Reactive attachment disorder in maltreated toddlers. *Child Abuse and Neglect: The International Journal*, 28, 877-888.
- Zeanah, C.H., & Smyke, A.T. (2005). Building attachment relationships following maltreatment and severe deprivation. In L.J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: Guilford Press.
- Zero To Three. (2005). *Diagnostic classification of mental health and developmental disorders of infancy and early childhood: Revised edition (DC: 0--3R)*. Washington, Dc: Zero to Three Press.

3. Attachment and Development: The Negative Consequences of Attachment Disturbances and Disorders

Serious disturbances of attachment occur most often in the context of early abuse, neglect, and deprivation. Although it is possible that some children will have significant attachment challenges for reasons not ostensibly consisting of abuse but still deprived of attachment opportunity (e.g., medically complicated infants with extensive hospitalizations) these examples are limited and have not been widely studied.

Disturbances of attachment were noted in the Strange Situation Procedure (SSP) while researchers were categorizing *organized* attachment into Secure and Insecure groups. In the SSP, anomalous attachment behaviors were noted in maltreated children that did not fit any of the previously established *organized* categories (Secure or Insecure). This provided a major impetus for the development of the criteria that now are used to identify *disorganized* attachment

relationships (Main & Solomon, 1990). Children with disorganized attachment, as measured in the SSP, display clear psychiatric disturbance, however, it is assumed that they have histories of abuse, neglect or deprivation, thus complicating discernment of relative contributions of general trauma effects versus attachment trauma specific effects and gives rise to the question of whether such discernment is even practical or possible. Many children with disorganized attachment meet criteria for RAD and/or other co-morbid conditions more generally seen in children with complex early maltreatment trauma. Some experts argue that disorganized attachment, though problematic, is not the same as RAD (e.g., Zeanah & Gleason, 2010) while other experts argue that RAD actually represents an extreme form of disorganized attachment classification (e.g., Green, 2003) or that disorganized attachment ought to be considered an attachment disorder (van IZendoorn & Bakermans-Kranenburg, 2002).

The following discussion regarding the impact of attachment disturbance on development reflects the literature that naturally combines children with diagnoses of RAD, and/or classifications of disorganized attachment, and/or complex effects of early maltreatment or deprivation. All of these categories represent children with attachment disturbances or disorders.

One well done study of infants/toddlers from the foster care system and infants/toddlers from an eastern European orphanage offers a clinical description of the common behavioral problems in maltreated and severely deprived infants and toddlers and is depicted in the table below (Zeanah & Smyke, 2005; table 9.1, p. 204):

Common Behavior Problems in Maltreated and Severely Deprived Infants and Toddlers¹

Problem	Maltreated Children	Postinstitutionalized Children
Regulatory problems	<ul style="list-style-type: none"> • Extreme withdrawal • Severe temper tantrums • Easily frustrated • Poor attention 	<ul style="list-style-type: none"> • Extreme withdrawal • Agitation • Constant activity • Easily frustrated • Stereotypies • Poor attention • Loudness/shouting • Temper tantrums
Developmental Problems	<ul style="list-style-type: none"> • Delayed speech/language • Fine-gross motor delays • Frequent mild cognitive delays 	<ul style="list-style-type: none"> • Very poor speech/language • Fine/gross motor delays • Mild to significant cognitive delay • Autistic features that may persist

² Zeanah, C. H., & Smyke, A. T. (2005). *Building Attachment Relationships Following Maltreatment and Severe Deprivation*. In Berlin, Ziv, Amaya-Jackson, & Greenberg (Eds.), *Enhancing early attachments: Theory, research, intervention and policy* (pp. 195-216). New York: The Guilford Press.

Common Behavior Problems in Maltreated and Severely Deprived Infants and Toddlers
(continued)²

Problem	Maltreated Children	Postinstitutionalized Children
Socioemotional problems	<ul style="list-style-type: none"> • Aggression • Indiscriminant behavior that usually resolves quickly • Difficulty forming attachment without adult's help 	<ul style="list-style-type: none"> • Aggression • Indiscriminant behavior that may persist • Difficulty forming attachment without adult's help
Sleep Problems	<ul style="list-style-type: none"> • Difficulty going to sleep • Difficulty staying asleep 	<ul style="list-style-type: none"> • Nightmares
Eating problems	<ul style="list-style-type: none"> • Overeating/stuffing 	<ul style="list-style-type: none"> • Overeating/stuffing • Difficulty with complex textures • Marked food preferences (e.g., chocolate and bananas)
Toileting problems	<ul style="list-style-type: none"> • Incomplete toilet training • Soiling of clothing, home • Bedwetting • Difficult to toilet train 	<ul style="list-style-type: none"> • Refusal to use toilet (in institution, children routinely required to sit on toilet up to 2 hours) • Sometimes quite difficult to toilet train

² Zeanah, C. H., & Smyke, A. T. (2005). *Building Attachment Relationships Following Maltreatment and Severe Deprivation*. In Berlin, Ziv, Amaya-Jackson, & Greenberg (Eds.), *Enhancing early attachments: Theory, research, intervention and policy* (pp. 195-216). New York: The Guilford Press.

As can be observed in the above table, young children are indeed adversely and measurably affected across all aspects of development by early and significant pathological care. It is clear that attachment disturbances and disorders occur in the context of psychological traumas so developmentally adverse that they block or interrupt the normal progression of development in periods when a child (usually in infancy and early childhood) is acquiring the fundamental psychological and biological foundations necessary for all subsequent development, including: (1) attention and learning; (2) memory; (3) emotion regulation; (4) personality formation and integration; and (5) relationships (Ford, 2009). The current literature based on both animal and human models (e.g., Teicher, 2002; de Bellis, 2001,2005; Shannon et al., 1998; Suomi,1996) notes that significant and ongoing psychological trauma in infancy/early childhood in which there is gross impairment in the caregiving system appears to cause adverse developmental effects, however, there are individual differences in the extent of impairment. There remains much to learn about the various risk and protective factors that affect ongoing development (e.g., intelligence level, genetics, duration/type of adversity, change to a healthy caregiving environment, and/or timing of interventions).

Research has shown positive effects of the early caregiving relationship on learning as well as negative effects from caregiving deprivation. In addition, studies have shown that environmental

influences can have a direct effect on the developing brain. For example, prospective research has shown that early maternal support promotes larger hippocampal volumes in animals (e.g., Liu, et al., 1997; Meaney, 2001) and in children (Luby et al., 2012); the hippocampus is a key brain structure for memory and learning. The Bucharest Early Intervention Project (Nelson, Zeanah, Fox, Marshall, Smyke, & Guthrie, 2007) followed 136 children who had been orphaned and institutionalized at birth or shortly thereafter. The children were followed from under age 31 months through age 54 months and were randomly assigned to foster homes or to the institution. They were compared to other same-aged children who had never been institutionalized. Results showed that children reared in institutions showed greatly diminished intellectual performance relative to children reared in families of origin; the children randomly assigned to foster care experienced significant gains in cognitive function, and the younger a child was when placed in foster care, the better the outcome. The authors' finding that previously institutionalized children's cognitive development benefits most from foster care if placement occurs relatively early in a child's life suggests the possibility of a *sensitive period* for impacting learning and development in deprived children. Primate research also suggests the probability of sensitive periods for intervention following early caregiving deprivation (e.g., Suomi, 1996; Research Network on Early Experience and Brain Development, 2012).

In sum, current research indicates that early foundational brain development critically affects future learning and overall development. Extremely pathological caregiving affects the foundational architecture of the brain (e.g., neural circuitry structures). Psychological trauma and pathological attachment in the early developmental periods is likely to be complex in its effects, because it occurs in a one-time-only period of developmental growth (e.g., infancy/childhood) and/or developmental consolidation (adolescence). Learning across all domains (e.g., cognitive, emotional, social, physical) is predictably negatively affected; however, questions remain as to how much and when the brain can be altered through therapeutic efforts, and what individual variables both in the child and in the environment can most affect change.

References

- Ford, J. (2009). Neurobiological and developmental research: Clinical implications. In C.A. Courtois & J.D. Ford (Eds.), *Treating complex traumatic stress disorders: An evidence-based guide* (pp. 31-58). New York: Guilford Press.
- Green, J. (2003). Are attachment disorders best seen as social impairment disorders? *Attachment and Human Development*, 5, 250-264.
- Liu, D, Diorio, J., Tannenbaum, B., Caldji, C., Francis, D., Freedman, A. ... & Meaney, M.J. (1997). Maternal care, hippocampal glucocorticoid receptors, and hypothalamic-pituitary-adrenal responses to stress. *Science*, 277, 1659-1662.
- Luby, J.L., Barch, D.M., Belden, A., Gaffrey, M.S., Tillman, R., Babb, C., ... & Botteron, K.N. (2012). Maternal support in early childhood predicts larger hippocampal volumes at school age. *Proceedings of the National Academy of Sciences*, 109(8), 2854-2859. doi: 10.3410/f.13965956.15429058.

- Meaney, M.J. (2001). Maternal care, gene expression, and the transmission of individual differences in stress reactivity across generations. *Annual Review of Neuroscience*, 24, 1161-1192.
- Research Network on Early Experience and Brain Development. (2012). The John D. and Catherine T. MacArthur Foundation and the James S. McDonnell Foundation. Retrieved from www.macbrain.org/.
- Shannon, C.M., Champoux, M. & Suomi, S.J. (1998). Rearing conditions and plasma cortisol in rhesus monkey infants. *American Journal of Primatology*, 46(4), 311-321.
- Suomi, S.J. (1996). Effects of differential early social experience on biological and behavioral development of rhesus monkeys. *European Neuropsychopharmacology*, 6, S4/S2.
- van IJzendoorn, M.H., & Bakersman-Kranenberg, M.J. (2002). Disorganized attachments and the dysregulation of negative emotions. In B. Zuckerman, A. Lieberman, & N.A. Fox (Eds.). *Emotional regulation and developmental health: Infancy and early childhood*. Johnson & Johnson Pediatric Institute, LLC.
- Zeanah, C.H. & Gleason, M.M. (2010). *Reactive attachment disorder: A review for DSM-5*. Washington, DC: American Psychiatric Association.
- Zeanah, C. H., & Smyke, A. T. (2005). Building attachment relationships following maltreatment and severe deprivation. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M. T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: Guilford Press.

4. Differential Diagnosis and Comorbidity

As reviewed in section 2, the current RAD diagnosis in the DSM-IV-TR was developed with little empirical evidence or research support (Chaffin et al., 2006), was targeted at children who had been raised in institutions (including international orphanages and similar settings where children lacked a consistent caregiver), and occurs only rarely. However, most researchers agree that attachment disturbances occur on a continuum (Zeanah & Smyke, 2005) and that children raised in other circumstances, including by biological parents, can also have attachment issues. Further, children with other types of psychopathology may also have disturbances in their attachment relationships related to their symptomatology.

We are in the early stages of understanding attachment, but more research is being collected on the impact of maltreatment and inconsistent parenting as it applies to socio-emotional issues and attachment behaviors. Zeanah & Gleason's (2010) proposed changes to the RAD diagnosis for DSM-5 may provide more clarity on the variations of behaviors that stem from grossly pathogenic care (see section 2).

The DSM-IV-TR (2000) offers specific criteria for diagnosing a child with Reactive Attachment Disorder, but often children who have experienced “grossly pathogenic care” at an early age present with a host of other symptoms. Conceptually, these symptoms may be thought of as the result of chronic maltreatment and recurring traumatic stress, sometimes referred to as complex trauma or developmental trauma (D’Andrea, Ford, Stolbach, Spinazzola, & van der Kolk, 2012). There are multiple domains of impairment in complex trauma, including affective, somatic, behavioral, cognitive, relational, and self-attribution (van der Kolk, 2005). Children who have experienced chronic maltreatment may not only have attachment disruptions, but also poor emotion regulation, disruptive behaviors, neurocognitive impairments, and poor self-worth. Attachment is just one of several potential difficulties, so children with a history of grossly pathogenic care may or may not present with RAD, but may still present with significant developmental and behavioral problems. Similarly, even though these children have experienced chronic traumatic events, they may or may not meet criteria for a Posttraumatic Stress Disorder (PTSD) diagnosis. The complexity of their presentation often means they meet criteria for more than one disorder. Common co-occurring disorders include PTSD, Attention-Deficit/Hyperactivity Disorder (ADHD), disruptive behavior disorders, or mood disorders. Misleading information exists on the internet and elsewhere regarding “common” RAD symptoms that can include everything from bossiness to sleep disturbance to being accident prone (e.g., <http://attachmenttherapy.com/childsymptom.htm>). Clinicians should cautiously adhere to the DSM-IV-TR criteria as they exist at present and diagnose other conditions as warranted (Chaffin et al., 2006).

While children with early maltreatment often have multiple, overlapping symptoms, some conditions can be distinguished from RAD. The following table outlines specific rule out criteria from the DSM-IV-TR (2000):

Differential Diagnosis	Criteria	Can they co-occur?
Intellectual Disability (Mental Retardation)	Attachment problems due to intellectual deficiencies indicated by cognitive development at less than 9 months of age	Yes, if attachment problems go beyond cognitive limitations and both criteria are met
Autism Spectrum Disorder (Pervasive Developmental Disorders)	Behavioral manifestations mimicking attachment disturbances, e.g., communication impairment, stereotyped or repetitive behaviors	No; cannot diagnose RAD if criteria met for autism spectrum disorder

Differential Diagnosis	Criteria	Can they co-occur?
Social Phobia	Social inhibition apparent in unfamiliar settings but not with caregivers	Yes
ADHD	Generally impulsive behavior across settings, not just with unfamiliar adult caregivers	Yes
Conduct Disorder or Oppositional Defiant Disorder	Disruptive, defiant, or antisocial behaviors, which are not in RAD diagnostic criteria	Yes

References

American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision. Washington, DC: American Psychiatric Association.

Chaffin, M., Hanson, R., Saunders, E.B., Nichols, T., Barnett, D., Zeanah, C. . . . & Miller-Perrin, C. (2006). Report of the APSAC task force on attachment therapy, reactive attachment disorder, and attachment problems. *Child Maltreatment*, 11(1), 76-89.

D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J., & van der Kolk, B. (2012). Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry*, 82(2), 187-200.

Symptom Checklist for Child Attachment Disorder. Retrieved from <http://attachmenttherapy.com/childsymptom.htm>.

van der Kolk, B.A. (2005). Developmental trauma disorder. *Psychiatric Annals*, 401-408.

Zeanah, C.H., & Gleason, M.M. (2010). Reactive attachment disorder: A review for DSM-5. Washington, DC: American Psychiatric Association. Retrieved from <http://www.dsm5.org/Proposed%20Revision%20Attachments/APA%20DSM-5%20Reactive%20Attachment%20Disorder%20Review.pdf>.

Zeanah, C.H., & Smyke, A.T. (2005). Building attachment relationships following maltreatment and severe deprivation. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M. T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: Guilford Press.

5. Assessment

The use of standardized measures in the diagnosis of impairments in the attachment relationship has been recommended as a best practice standard. However, the development and use of standardized instruments continues to lag. We can learn from other fields, in particular, the field of posttraumatic stress disorder (PTSD) for children which continues to work toward the development of measures for children.

There are several issues that contribute to the difficulties in the development of assessment instruments for attachment, including symptom crossover. That is, there is significant common ground between symptoms of attachment problems and other common childhood psychiatric disorders such as ADHD, oppositional defiant disorder, autism spectrum disorders, social phobia, and anxiety. Due to this sharing of behavioral symptoms, attachment issues may go unaddressed. In addition to symptom crossover with other more common diagnoses, there is considerable variability in the symptoms of children with attachment issues. These children may show both internalizing symptoms such as depressive and anxiety symptoms, and externalizing symptoms such as noncompliance, aggression, and anger. Children who have experienced extreme pathogenic care or unstable/inconsistent caregiving, such as those who have been adopted (internationally or domestically) and children who have been in state custody are at risk for co-occurring diagnoses such as PTSD, developmental disorders, and attachment problems. In addition, there is a lack of clarity about the presentation of attachment disorders over the age of five years and difficulty in distinguishing among aspects of attachment disorders, disorganized attachment or the more general consequences of maltreatment.

The American Academy of Child and Adolescent Psychiatry (AACAP) advises against giving a child a label of attachment disorder or a RAD diagnosis without a comprehensive evaluation. Their practice parameter states that the assessment of RAD requires evidence directly obtained from serial observations of the child interacting with his or her primary caregivers and history (as available) of the child's patterns of attachment behavior with these caregivers. It also requires observations of the child's behavior with unfamiliar adults and a comprehensive history of the child's early caregiving environment including, for example, pediatricians, teachers, or caseworkers. AACAP recommends that initial evaluations be conducted by psychologists, psychiatrists, Licensed Clinical Social Workers or psychiatric nurses.

According to the AACAP Practice Parameter (2005), the question of whether attachment disorders can be reliably diagnosed in older children and adults has not been resolved. Attachment behaviors used for the diagnosis of RAD change markedly with development and defining analogous behaviors in older children is difficult. There are no substantially validated measures of attachment in middle childhood or early adolescence. Assessments of RAD past school age may not be possible at all, as by this time children have developed along individual lines to such an extent that early attachment experiences are only one factor among many that determine emotion and behavior.

There is as yet no universally accepted diagnostic protocol for RAD. O'Connor & Zeanah (2003) explore the critical behaviors that need to be assessed for making a diagnosis of attachment disorder and contextualize this issue within the problems inherent in the DSM classification

itself. Most of the instruments currently available have been used primarily in research. For example, the Strange Situation Procedure (SSP) developed by Mary Ainsworth (1978) has been used widely in research for children up to 18 months of age, and there are adaptations of this procedure for children up through preschool and school ages such as the Preschool Assessment of Attachment (PAA) developed by Crittenden (1992) and the Main and Cassidy Attachment Classification System (1988). The SSP has been used mostly to classify various types of attachment styles; however, it has been adapted more recently to measure levels of attachment behaviors from no attachment to disorganized attachment, to insecure attachment to securely attached (Zeanah & Smyke, 2005). Observational methods, such as the Attachment Q-Set (AQS)(Waters, 1995), are available for infants and toddlers and a variety of narrative techniques using stem stories, puppets, or pictures have been developed and are being used in research for older children (Smeekens & Riksen-Walraven, 2009). The Child Attachment Interview (Target, 2003) which is a modification of the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996) is also available for older children. The AAI is considered the most valid measurement of the state of mind with respect to attachment in adolescents and adults and is a helpful measure to use with caregivers prior to attachment interventions. Finally, Smyke & Zeanah (1999) developed the Disturbances of Attachment Interview (DAI) which is a semi-structured interview used with the child's caregivers, accessing information about the symptoms of RAD and variants of attachment behavioral patterns. In summary, assessment choices are currently limited. O'Connor & Zeanah (2003) identify promising methods that focus on observations, clinical interviews, questionnaires, and social-cognitive/interview assessment with children. These authors emphasize how the assessment world is in its infancy and underscore that multiple methods are needed with a goal toward convergence among these sources of information. As the field clarifies the validity and usefulness of these instruments the march toward a clear standard of care for assessment of attachment disturbances may eventuate.

A child's pediatrician or PCP is often the first health professional to become concerned about a child's attachment relationship. As stated earlier, due to symptom crossover and the heterogeneity in childhood disorders, the behavioral profile may also vary due to age and the child's developmental status. Most typically a PCP might notice a disturbance in social interaction and emotional regulation. Infants up to about 24 months *may* present with symptoms of failure to thrive, display abnormal responsiveness to social and sensory stimuli, and show disturbances in their ability to seek and/or accept comfort or affection from familiar adults. Coupled with knowledge about a child's attachment and family history these types of symptoms should alert the PCP to seek mental health consultation. While RAD is likely to occur in relation to neglectful and abusive treatment, automatic diagnoses on this basis alone cannot be made, as children can form stable attachments and social relationships despite marked abuse and neglect. The PCP will want to initiate medical tests to distinguish an organic illness from the overlapping symptomatology. In spite of the challenges involved in adequately assessing the presence of RAD, clinicians will be called on to determine disturbances in the attachment relationship. These disturbances may result from maltreatment and trauma experienced in the early years as well as more subtle caregiving differences. Until a clinical protocol is available the mental health provider may want to consider the key points from the APSAC Attachment Task Force as guidelines:

1. Assess patterns of behavior over time.
2. Take into account cultural issues.
3. Sample behavior across situations and contexts.
Consider behavior with different caregivers, familiar adults, and peers.
Avoid basing diagnosis solely on problems with parent or primary caregiver.
4. Assessment should not rely on checklists alone.
5. Only those mental health professionals able to distinguish RAD from other childhood disorders should make this diagnosis.
6. If there are hoof sounds, think horses not zebras first, that is, consider common disorders before considering the rarer diagnoses.
7. Assessment for RAD is a family/relationship problem; it does not reside solely in the child.
8. Rule out other diagnoses (see # 5).
9. Diagnosis is not based on child's maltreatment history alone since resiliency is common.

In addition, the mental health provider may want to access other readily available assessment/screening tools that can be useful in conceptualizing a child's social, emotional, and attachment profile. These include:

- Temperament and Atypical Behavior Scales (TABS) (Neisworth, 1999)
- Infant Toddler Social Emotional Assessment (ITSEA) (Carter, et al, 2006)
- Brief Infant Toddler Social Emotional Assessment (BITSEA) (Carter, et al, 2006)
- Marschak Interaction Method (MIM) (Marschak, 1960)
- Achenbach Child Behavior Checklist (CBCL) (Achenbach & Rescorla, 2000)
- Parenting Stress Index (PSI), Fourth Edition (Abidin, 2012)
- Parent-Child Relationship Inventory (Gerard, 1994)
- Working Model of the Child Interview (Benoit, et al, 1997)
- The Parent Child Structured Play Interaction Procedure (Crowell, 1985, 1988)
- Adult Attachment Interview (for caregivers) - (George & Main, 1996)

References

Abidin, R.R. (2012). Parenting Stress Index-Fourth Edition, PAR Publishers.

Achenbach, T.M. & Rescorla, L.A. (2000) *Manual for the ASWEBA Preschool forms & profiles*. Burlington, VT: University of Vermont Department of Psychiatry.

Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum.

Benoit, D., Zeanah, C.H., Parker, K.C, Nicholson, E., & Coolbear, J. (1997). The working model of the child interview: Infant clinical status related to maternal perceptions. *Infant Mental Health Journal*, 18, (1), 107-121.

- Boris, N. & Zeanah, C.H., and the Work Group on Quality Issues (2005). Practice parameter for the assessment and treatment of children and adolescents with reactive attachment disorder of infancy and early childhood. *Journal of the American Academy of Child and Adolescent Psychiatry*, 44, (11), 1206- 1219.
- Carter, A.S. & Briggs-Gowan, M.J. (2006). *Infant-Toddler Social and Emotional Assessment*. Pearson Assessments.
- Carter, A.S. & Briggs-Gowan, M.J. (2006). *Brief Infant-Toddler Social and Emotional Assessment*. Pearson Assessments.
- Chaffin, M., Hanson, R., Saunders, E.B., Nichols, T., Barnett, D., Zeanah, C. . . . & Miller-Perrin, C. (2006). Report of the APSAC task force on attachment therapy, reactive attachment disorder, and attachment problems. *Child Maltreatment*, 11(1), 76-89.
- Crittenden, P.M. (1992) Quality of attachment in the preschool years. *Development and Psychopathology*, 4, 209-241.
- Crowell, J.A. (1985). *Parent-child interaction and coding system for 2-5 year old children (modified from Matas, Arend & Sroufe, 1978)*. Unpublished manuscript, Stanford University, Stanford, CA.
- Crowell, J.A. (1988). *Parent-child interaction coding system for 5-11 year old children*. Unpublished manuscript, State University of New York at Stony Brook.
- George, C., Kaplan, N., & Main, M. (1996). Adult attachment interview protocol. (3rd ed.). Unpublished manuscript, University of California at Berkeley.
- Gerard, A.B. (1994). *Parent-Child Relationship Inventory*. Western Psychological Services.
- Main, M. & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. *Developmental Psychology* 24, 415-426.
- Marschak, M. (1960). A method for evaluating child-parent interactions under controlled conditions. *The Journal of Genetic Psychology*, 97, 3-22.
- Neisworth, J.T., Bagnato, J.S., & Hunt, F.M. (1999). *Temperament and atypical behavior scale—Early childhood indicators of developmental dysfunction*. Baltimore, MD: Paul H. Brookes Publishing Company.
- O'Connor, T.G. & Zeanah, C.H. (2003) Attachment disorders: Assessment strategies and treatment approaches. *Attachment & Human Development*, 5(3), 223-244.

- Smeekens, S. & Riksen-Walraven, J. M. (2009). The predictive value of different infant attachment measures for socioemotional development at age 5 years. *Infant Mental Health Journal*, 30(4), 366-383.
- Waters, E. (1995) The attachment Q-set. In E. Waters, B.E. Vaughn, G. Posada, & K. Kondo-Ikemura (Eds.), *Caregiving, cultural, and cognitive perspectives on secure-base behavior and working models. Monographs of the Society for Research in Child Development*, 60(2-3, Serial No. 244), 247-254.
- Zeanah, C. H., & Smyke, A. T. (2005). Building attachment relationships following maltreatment and severe deprivation. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: Guilford Press.

6. Prevention and Early Intervention

Preventing attachment disorders begins prior to the birth of the child and is mostly focused on holistic maternal health. It is important that all available information has been gathered related to the primary caregiver's/mother's psychosocial history. This is especially essential given the link between maternal sensitivity and attachment. The construct of maternal sensitivity (i.e. appropriate, timely, and consistent responses to children's signals and needs) is central to attachment theory. It is also central to gaining understanding and working with parents through intervention methods. (Lindhiem, Bernard, & Dozier, 2011).

Several preventive interventions in broad-based child development programs have shown promise for securing attachment in children and caregivers in high-risk population groups. For example, prenatal and infancy home visitation programs have been shown to achieve goals that can offset some of the risk factors that can lead to attachment difficulties (e.g., Olds, Eckenrode, Henderson, Kitzman, Powers, Cole, et al., 1997; Olds, 2005; Slade, Sadler, & Mayes, 2005). These programs typically focus on five domains of functioning including personal health, environmental health, maternal role development, maternal life-course development, and family and friend support. During home visits, nurses carry out three major activities including promoting adaptive change, helping to build supportive relationships with other family members and friends, and linkage with other services. There is importance placed on building parents' strengths and promoting parental competence and control over life.

Likewise, preventive intervention programs geared toward surrogate caregivers have also shown success. For example, the Attachment and Biobehavioral Catch-Up (ABC) model delivered in 10 sessions concentrates on teaching surrogate parents the essentials of fostering secure attachment with young foster children (Dozier, Lindheim & Ackerman, 2005) and the Bucharest Early Intervention Project geared toward working with surrogate caregivers in Romania showed substantial gain in children's' cognitive, general developmental status, and attachment status over several years (Zeanah & Smyke, 2005).

Other preventive intervention attempts have not been as successful in changing attachment classification, but still are promising in terms of enhanced parenting as a key mechanism underlying positive effects on children's cognitive and social development, for example, through the addition of the Parent-Child Communication Coaching Program (PCCCP) to the broader Early Head Start program (e.g., Love, et al. 2002); Spieker, Nelson, DeKlyen, & Stekel, 2005). Because this home-visiting program with high risk parents that begins in the stage of pregnancy and ends with the child's third birthday did not yield more attachment security than the control group, more research is needed to understand fully 'what works for whom'.

As will be detailed in section 7 (Treatment), recent research suggests that early interventions that have targeted sensitivity have been found to be more effective in enhancing security than other interventions targeting other issues (such as parental state of mind). Furthermore, interventions that started after the child was at least six months old have been more effective than those starting earlier. This may be due in part to children beginning to show attachment to specific caregivers during this time period (Dozier, & Bernard, 2009). A number of attachment based interventions highlight mothers' strengths (i.e., appropriate response) and weaknesses (i.e., missed opportunities to respond) by providing feedback. For example, the Circle of Security model, designed for early intervention, focuses on both the caregiver's internal working models of self and on the caregiving behavior (e.g., Cooper, Hoffman, Powell & Marvin, 2005).

Derived from attachment theory, the "Circle of Security" is a relationship-based intervention designed to change child behavior through changes in the parental behavior. The underlying premise is that the parent is a secure base from which young children can leave and explore their surroundings. Caregivers read and attend to child cues during exploration. Children then return to the safety and security of the caregiver base. The treatment plan is tailored to address the parent child dyad and to address the challenges that occur within that circle of exploration and safe return. The Circle of Security protocol consists of pre-intervention videotaped structured assessment. This is followed up by group based parent education and psychotherapy lasting about 20 weeks using videotaped intervention. The goals of this video review are to increase the sensitivity to the child's cues, increase self-other reflective capacity, and explore new representations and interaction patterns.

References

- Cooper, G., Hoffman, B.P., & Marvin, R., (2005). The circle of security intervention: Differential diagnosis and differential treatment. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 127-151). New York: Guilford Press.
- Dozier, M., & Bernard, K. (2009). The impact of attachment-based interventions on the quality of attachment among infants and young children. In R.E. Tremblay, R.G. Barr, & R. DeV. Peters (Eds.), *Encyclopedia on early childhood development* [online]. Montreal, Quebec: Centre of Excellence for Early Childhood Development.

- Dozier, M., Lindheim, O., & Ackerman, J.P. (2005). Attachment and Biobehavioral catch-Up: An intervention targeting empirically identified Needs of foster infants. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M. T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 178-194). New York: Guilford Press.
- Lindhiem, O, Bernard, K., & Dozier, M. (2011). Maternal Sensitivity: Within-Person Variability and the Utility of Multiple Assessments. *Child Maltreatment, 16*, 41.
- Love, J.M., Kisker, E.E., Ross, C.R., Schocher, P.Z., Brooks-Gunn, J., Paulsell, D., et al. (2002). Making a difference in the lives of infants and toddlers and their families: The impacts of early head start. Washington, DC: U.S. Department of Health and Human Services.
- Olds, D., Eckenrode, J., Henderson, C.R., Jr., Kitzman, H., Powers, J., Cole, R., et al. (1997). Long-term effects of home visitation on maternal life course and child abuse and neglect: 15-year follow-up of a randomized trial. *Journal of the American Medical Associations, 278*, 637-643.
- Olds, D., (2005). The Nurse-Family Partnership: Foundations in attachment theory and epidemiology. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M. T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 217-249). New York: Guilford Press.
- Spieker, S., Nelson, D., DeKlyen, M., & Stekel, F. (2005). Enhancing early attachment in the context of early head start: Can programs emphasizing family support improve rates of secure infant-mother attachments in low-income families? In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 250-275). New York: Guilford Press.
- Zeanah, C. H., & Smyke, A. T. (2005). Building attachment relationships following maltreatment and severe deprivation. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenburg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: Guilford Press.

7. Treatment

Traditional attachment theory holds that attachment develops in the context of a safe, secure relationship with a caregiver that is sensitive and responsive to the child's needs. It thus follows that successful attachment interventions are targeted at improving the quality of the caregiver-child relationship and their environment (Chaffin et al., 2006). The systematic study of attachment disorder is relatively new, and is plagued by the problem that, even when studied, strict criteria for attachment disorder have not been used. Studies have instead used a variety of observational interview measures to index a behavioral pattern based on early clinical description. (See O'Connor & Nilsen [2005] for commentary.) With these limitations in mind, several meta-analyses have identified common characteristics in successful interventions for children clinically described as attachment disturbed. One review found that interventions that

increased parental sensitivity were most effective in increasing child attachment security (Bakermans-Kranenburg, van IJzendoorn, & Juffer, 2003). Successful interventions with infants were started after age six months, were shorter term, focused, and goal-directed, with an emphasis on increasing sensitive caregiver behaviors, rather than focusing on child pathology. Finally, these authors noted that interventions that were implemented in families in which the infants were considered to be at risk (due to prematurity, irritability, or international adoption) were more effective than interventions with at-risk parents. The authors concluded that it might be easier to prevent or change disorganized attachment when the parent is relatively well functioning and free of psychopathology (IJzendoorn, Bakermans-Kranenburg, & Juffer, 2005).

Systems of Care

Not only is parental involvement a key component, but Zeanah & Smyke (2005) emphasize the importance of working with multiple systems for children who are placed in foster care. Through their work in New Orleans and with the Bucharest Early Intervention Project (BIEP), they have found that facilitating a secure attachment between young children and foster parents improves attachment behaviors and reduces symptoms of Reactive Attachment Disorder. They accomplished this first by conducting thorough assessments with a team of providers trained in infant mental health. The assessment includes developmental and clinical evaluations, and observations of the child at home and in child care settings, with a careful appraisal of the relationship between the child and foster parent. The team works closely with the foster parents to make the environment safe and predictable, to help the child regulate his or her feelings, to respond effectively to distress, and to understand the child's signals, in particular, any miscues the child may have developed in the context of a disrupted attachment with biological caregivers.

Best Practices Recommendations

Following are recommendations regarding treatment for attachment challenges taken directly from the American Professional Society on the Abuse of Children (APSAC) Attachment Task Force report (Chaffin, M., et al., 2006).

- a. State-of-the-art, goal-directed, evidence-based approaches that fit the main presenting problem should be considered when selecting a first-line treatment. Where no evidence-based option exists or where evidence-based options have been exhausted, alternative treatments with sound theory foundations and broad clinical acceptance are appropriate. Before attempting novel or highly unconventional treatments with untested benefits, the potential for psychological or physical harm should be carefully weighed.
- b. First-line services for children described as having attachment problems should be founded on the core principles suggested by attachment theory, including caregiver and environmental stability, child safety, patience, sensitivity, consistency, and nurturance. Shorter term, goal-directed, focused, behavioral interventions targeted at increasing parent sensitivity should be considered as a first-line treatment.
- c. Treatment should involve parents and caregivers, including biological parents if reunification is an option. Fathers, and mothers, should be included if possible.

Parents of children described as having attachment problems may benefit from ongoing support and education. Parents should not be instructed to engage in psychologically or physically coercive techniques for therapeutic purposes, including those associated with any of the known child deaths.

Evidence-Based Practices

In addition to broad recommendations for treating youth and families with attachment issues, there are specific treatment models that address many of the presenting problems seen in children with attachment issues. The table below outlines some appropriate evidence-based practices. It is worth highlighting that one consistent component across models is parenting practices and that caregiver participation is an essential component of treatment. Most emphasize parental attunement or sensitivity to the child’s needs, and the treatment focuses on building that relationship through consistency, responsiveness, and predictability.

Intervention	Developer / Reference	Age ranges	Target symptoms	Setting
Attachment and Bio-behavioral Catch-up	Dozier, Lindhiem, & Ackerman, 2005	0-5	Child dysregulation Caregiver nurturance Caregiver parenting	Home (foster, adoptive, or biological)
Attachment, Self-Regulation, & Competency	Blaustein & Kinniburgh, 2010	2-21	Complex trauma Behavior problems	Outpatient Home Residential
Child Parent Psychotherapy	Lieberman & Van Horn, 2005	0-6	Child PTSD Child behavior Secure attachment Parent PTSD Parent mental health symptoms	Home Community setting

Intervention	Developer / Reference	Age ranges	Target symptoms	Setting
Circle of Security	Cooper, Hoffman, Powell, & Marvin, 2005	1-4	Child-caregiver interactions Child behavior Parenting stress	Outpatient
Incredible Years	Webster-Stratton, 1982	2-12	Parenting Child behaviors Parent bond with school Teacher classroom management	Outpatient Home School
Parent-Child Interaction Therapy	Hood & Eyberg, 2003	2-12	Parent-child interactions Child conduct behaviors Parental distress	Outpatient School
Real Life Heroes	Kagan, 2007	6-12 Adolescents (13-17) with developmental delays	Trauma symptoms Behavior problems Feeling secure with caregiver	Residential Outpatient Home

Caution Regarding Potentially Harmful Approaches

Some techniques that have been used to address attachment problems are known to be harmful and go against what is known about the relationship between sensitive care and the development of attachment. These techniques may re-traumatize an already traumatized child. In addition, six deaths in the U.S. have been reported in connection with one such technique known as “holding therapy” (O'Connor & Zeanah, 2003). To this point, the following recommendations are taken directly from the American Professional Society on the Abuse of Children (APSAC)

Attachment Task Force report (Chaffin, et al., 2006).

- a. Treatment techniques or attachment parenting techniques involving physical coercion, psychologically or physically enforced holding, physical restraint, physical domination, provoked catharsis, ventilation of rage, age regression, humiliation, withholding or forcing food or water intake, prolonged social isolation, or assuming exaggerated levels of control and domination over a child are contraindicated because of risk of harm and absence of proven benefit and should not be used.
- b. This recommendation should not be interpreted as pertaining to common and widely accepted treatment or behavior management approaches used within reason, such as time-out *, reward and punishment contingencies, occasional seclusion or physical restraint as necessary for physical safety, restriction of privileges, “grounding”, offering physical comfort to a child, and so on. Prognostications that certain children are destined to become psychopaths or predators should never be made based on early childhood behavior. These beliefs create an atmosphere conducive to overreaction and harsh or abusive treatment. Professionals should speak out against these and similar unfounded conceptualizations of children who are maltreated.
- c. Intervention models that portray young children in negative ways, including describing certain groups of young children as pervasively manipulative, cunning, or deceitful, are not conducive to good treatment and may promote abusive practices. In general, child maltreatment professionals should be skeptical of treatments that describe children in pejorative terms or that advocate aggressive techniques for breaking down children’s defenses.
- d. Children’s expressions of distress during therapy always should be taken seriously. Some valid psychological treatments may involve transitory and controlled emotional distress. However, deliberately seeking to provoke intense emotional distress or dismissing children’s protests of distress is contraindicated and should not be done.

References

American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition, Text Revision. American Psychiatric Association: Washington, DC.

Bakermans-Kranenburg, M.J., van Ijzendoorn, M.H., & Juffer, F. (2003). Less is more: Meta-analysis of sensitivity and attachment interventions in early childhood. *Psychological Bulletin*, 129, 195-215.

Blaustein, M.E. & Kinniburgh, K.M. (2010). *Treatment traumatic stress in children and adolescents: How to foster resilience through attachment, self-regulation, and competency*. New York: Guilford Press.

- Chaffin, M., Hanson, R., Saunders, E.B., Nichols, T., Barnett, D., Zeanah, C., ... Miller-Perrin, C. (2006). Report of the APSAC task force on attachment therapy, Reactive Attachment Disorder, and attachment problems. *Child Maltreatment, 11*(1), 76-89.
- Cooper, G., Hoffman, K., Powell, B., & Marvin, R. (2005). The circle of security intervention. In L.J. Berlin, Y. Ziv, L.M. Amaya-Jackson, & M.T. Greenberg (Eds.), *Enhancing Early Attachments: Theory, Research, Intervention, and Policy*. New York: Guilford Press.
- D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J., van der Kolk, B. (2012). Understanding interpersonal trauma in children: Why we need a developmentally appropriate trauma diagnosis. *American Journal of Orthopsychiatry, 82*(2), 187-200.
- Dozier, M., Lindhiem, O., & Ackerman, J. (2005). Attachment and biobehavioral catch-up. In L. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenberg (Eds.), *Enhancing Early Attachments* (pp. 178-194). New York: Guilford Press.
- Eyberg, S.M. (1988). Parent-child interaction therapy: Integration of traditional and behavioral concerns. *Child & Family Behavior Therapy, 10*, 33-46.
- Kagan, R. (2007). *Real Life Heroes: A Life Storybook for Children* (2nd ed.). New York: Routledge.
- Lieberman, A.F., Van Horn, P., & Ippen, C.G. (2005). Toward evidence-based treatment: child-parent psychotherapy with preschoolers exposed to marital violence. *Journal of the American Academy of Child & Adolescent Psychiatry, 44*(12), 1241-1248.
- van IJzendoorn, M., Bakermans-Kranenburg, M.J., & Juffer, F. (2005). Why less is more: From the dodo bird verdict to evidence-based interventions on sensitivity and early attachments. In L.J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenberg (Eds.), *Enhancing early attachments: Theory, research, intervention, and policy* (pp. 297-312). New York: The Guilford Press.
- van der Kolk, B.A. (2005). Developmental trauma disorder. *Psychiatric Annals, 401-408*.
- Webster-Stratton, C. (1982). Teaching mothers through videotape modeling to change their children's behavior. *Journal of Pediatric Psychology, 7*(30), 279-294.
- Zeanah, C.H., & Smyke, A.T. (2005). Building attachment relationships following maltreatment and severe deprivation. In L. J. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenberg (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: The Guilford Press.

8. Other Interventions

Section 7 (Treatment) listed a number of Best Practice treatment suggestions specific to attachment challenges. In addition to these attachment-specific treatments, which always include the caregiver, children with attachment challenges, disruptions, and disorders often have needs for other interventions and services. These needs arise out of co-occurring developmental challenges deriving from early pathogenic care or from co-morbid conditions. Children with attachment challenges should be screened for co-existing developmental, health, and behavioral health challenges and should be appropriately referred as early in their development as possible for services such as:

- **Occupational Therapy** – often needed for challenges with sensory processing (i.e., coping with under-stimulation and over-stimulation), tasks of daily living (e.g., feeding, hygiene, tying shoes, managing buttons), educational tasks (e.g., mechanics of writing, staying seated comfortably), proprioceptive tasks (e.g., keeping balance).
- **Physical Therapy** – often needed to facilitate fine or gross motor skill development
- **Speech and Language Therapy** – often needed due to general delays
- **Therapeutic Preschool** – particularly helpful for social skills and emotion regulation
- **Social Skills groups** – often a central need for intervention
- **Special Education –often needed due to general delays**
- **Applied Behavioral Analysis** – this service is an intense, though short term behavior modification service that is typically provided across contexts such as school, home, and community (e.g., for self-injurious behaviors, aggression toward others, habilitative skills such as toileting)
- **Psychological/Psychoeducational Evaluation** – For young children, the evaluation may be called a “Developmental Evaluation”. Evaluations should aid planning for treatment needs as well as educational needs.
- **Trauma Specific Therapy** – indicated if a child is showing significant signs of trauma
- **Caregiver Psychoeducation** – Caregivers need information on attachment issues and any other diagnostic or developmental issues pertinent to their children
- **Medical /Genetic Screening and Subsequent Treatment** – children from pathogenic backgrounds often have undiagnosed and/or untreated medical conditions

In addition to services rendered by professionals as listed above, all children benefit from developmentally healthy activities that promote a solid sense of self and community. Sometimes the most therapeutic benefits come from helping a child discover his or her competencies and talents through normal activities such as:

- **Sports**—both formal (such as teams or tennis lessons) and informal (going to baseball games, playing catch out in the yard, swimming in the community pool or lake)
- **Music** – both formal (e.g., piano lesson, community choir) and informal (e.g., listening to music, singing with the family around a campfire)
- **Clubs** – (e.g., Scouts, chess club, art club, theater club, church mission groups, church youth groups)
- **Art** – both formal (e.g., art lessons) and informal (e.g., an “art studio” space in the home)

- **Serving others** – (e.g., community service such as feeding homeless, picking up litter, caring for pets)
- **Helping children develop interests** - (e.g., horseback riding, building with Legos, computer graphics, cooking)

9. *Helpful Resources*

Empirically Validated Treatments & Consensus Treatments

This refers to treatment programs that have evidence based support or programs which are based on principles and strategies that have been researched and are used to inform the intervention.

Blaustein, M.E. & Kinniburgh, K.M. (2010). *Treatment Traumatic Stress in Children and Adolescents: How to Foster Resilience through Attachment, Self-Regulation, and Competency*. New York: Guilford Press.

Cooper, G., Hoffman, K., Powell, B., & Marvin, R. (2005). The circle of security intervention. In L. J. Berlin, Y. Ziv, L. M. Amaya-Jackson, & M.T. Greenberg (Eds.), *Enhancing Early Attachments: Theory, Research, Intervention, and Policy*. New York: Guilford Press.
www.circleofsecurity.net.

Dozier, M., Lindhiem, O., & Ackerman, J. (2005). Attachment and biobehavioral catch-up. In L. Berlin, Y. Ziv, L. Amaya-Jackson, & M.T. Greenberg (Eds.), *Enhancing Early Attachments* (pp. 178-194). New York: Guilford Press.

Eyberg, S.M. (1988). Parent-child interaction therapy: Integration of traditional and behavioral concerns. *Child & Family Behavior Therapy*, 10, 33-46.

Hembree-Kigin, T.L., & McNeil, C.B. (1995). *Parent-child interaction therapy*. New York: Plenum.

Hughes, D. (2007). *Attachment focused family therapy*. New York: W.W. Norton & Company.

Hughes, D. (2011). *Attachment focused family therapy Workbook*. New York: W.W. Norton & Company.

Kagan, R. (2007). *Real Life Heroes: A Life Storybook for Children* (2nd ed.). New York: Routledge.

Lieberman, A.F., Van Horn, P., & Ippen, C.G. (2005). Toward evidence-based treatment: child-parent psychotherapy with preschoolers exposed to marital violence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(12), 1241-1248.

Lieberman, A., & Van Horn, P. (2005). *Don't hit my mommy: A manual for child-parent psychotherapy with young witnesses of domestic violence*. Washington, DC: Zero to Three Press.

Webster-Stratton, C. (1982). Teaching mothers through videotape modeling to change their children's behavior. *Journal of Pediatric Psychology*, 7(30), 279-294.

Resources for Practical Strategies for Parents

These books and resources may be informed by research but also may be more loosely tied to actual research.

Gray, D. (2002). *Attaching in adoption: Practical tools for today's parents*. Indianapolis, IN: Perspective Press, Inc.

Gray, D. (2007). *Nurturing in adoptions: Creating resilience after neglect and trauma*, Indianapolis, IN: Perspectives Press Inc.

Hughes, D. (2009). *Attachment focused parenting: Effective strategies to care for Children*. New York: W.W. Norton and Company.

Hughes, D. & Baylin, J. (2012). *Brain-based parenting: The neuroscience of caregiving for healthy attachment*. New York: W.W. Norton and Company.

Kagan, R. (2004). *Rebuilding attachments in traumatized children*. Binghamton, New York: The Haworth Press.

Purvis, K., Cross, D., & Sunshine, W. (2007). *The connected child: Bring hope and healing to your adoptive family*. New York: McGraw-Hill.

Maltreatment and Attachment Trauma

These resources address maltreated children specifically and are informed by research.

James, B. (1994). *Handbook for treatment of attachment-trauma in children*. New York: Free Press/Simon & Schuster.

Ziegler, D. (2000). *Raising children who refuse to be raised*. Phoenix, AZ: Acacia Publishing, Inc.

Concerns about Holding Therapy and Corrective Attachment Therapy

These resources either demonstrate the concerns regarding unproven approaches or caution the reader about such approaches.

Chaffin, M., Hanson, R., Saunders, B.E., Nichols, T., Barnett, D., Zeanah, C.H., ... et al. (2006). Report of the APSAC task force on attachment therapy, reactive attachment disorder, and attachment problems. *Child Maltreatment, 11*, 76-89.

Friedrich, W. N. (Ed.) (2002). Holding therapy: Part I [Special issue]. *American Professional Society on the Abuse of Children (APSAC) Advisor, 14*(4).

Friedrich, W. N. (Ed.) (2002). Holding therapy: Part II [Special issue]. *APSAC Advisor, 14*(3).

Assessing attachment in childhood

These resources provide guidance and information about assessment issues regarding RAD and disturbances in attachment.

Everett Waters website at SUNY Stony Brook.

http://www.psychology.sunysb.edu/attachment/measures/measures_index.html.

Kerns, K.A., Tomich, P.L., Aspelmeier, J.E., & Contreras, J.M. (2000). Attachment-based assessments of parent-child relationships in middle childhood. *Developmental Psychology, 36*, 614-626.

O'Connor, T.G., & Zeanah, C.H. (2003). Attachment disorders: Assessment strategies and treatment approaches. *Attachment and Human Development, 5*, 223-244.

Solomon, J., & George, C. (1999). The measurement of attachment security in infancy and childhood. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications*. New York: Guilford Press.

Trauma Focused Therapy

These resources provide details and materials for behavioral intervention. In most cases, specific training is recommended.

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

Deblinger, E., & Heflin, A. H. (1996). *Treating sexually abused children and their nonoffending parents: A cognitive behavioral approach*. Thousand Oaks: Sage Publications, Inc.

Saunders, B., & Berliner, L. (2003). *Child physical and sexual abuse: Guidelines for treatment*. Washington, DC: Office of Victims of Crime. <http://www.musc.edu/cvc/guide1.htm>.

Resources for Practical Strategies for Parents

These books are designed to provide support for parents regarding a number of behavioral problems.

Barkley, R. (1997). *Defiant children*. New York: Guilford Press.

Barkley, R. (2000). *Taking charge of ADHD*. New York: Guilford Press.

Christopher, E.R., & Mortswweet, S.L. (2001). *Treatments that work with children: Empirically supported strategies for managing childhood problems*. Washington, DC: American Psychological Association.

Greene, R. W. (1998). *The explosive child*. New York: Harper Collins.

Other Helpful Resources

Berlin, L.J., Ziv, Y., Amaya-Jackson, L., & Greenburg, M.T. (Eds.), *Enhancing early attachments: Theory, research, intervention, & policy* (pp. 195-216). New York: Guilford Press.

Boris, N.W., Fueyo, M., & Zeanah, C.H. (1997). The clinical assessment of attachment in children under five. *Journal of Academic Child and Adolescent Psychiatry, 11*, 1 -10.

Boris, N.W., Zeanah, C.H., & the Work Group on Quality Issues (2004). *Practice parameter for the assessment and treatment of children and adolescents with reactive attachment disorder of infancy and early childhood*. Washington, DC: American Academy of Child and Adolescent Psychiatry.

Cassidy, J., & Shaver, P. R. (1999). *Handbook of attachment: Theory, research, and clinical applications*. New York: Guilford Press.

Chaffin, M., Hanson, R., Saunders, B.E., Nichols, T., Barnett, D., Zeanah, C., ... et al. (2006). Report of the APSAC task force on attachment therapy, reactive attachment disorder, and attachment problems. *Child Maltreatment, 11*, 76-89.

Egeland, B., Weinfield, N.S., Bosquet, M., & Cheng, V.K. (2000). Remembering, repeating, and working through: Lessons from attachment-based interventions. In J.D. Osofsky and H.E. Fitzgerald (Eds.), *WAIMH handbook of infant mental health: Vol. 4. Infant mental health in groups at high risk* (pp.35-89). New York: Wiley.

- Ford, J. (2009). Neurobiological and Developmental Research: Clinical Implications. In Courtois, C.A. & Ford, J.D. (Eds.), *Treating complex traumatic stress disorders: An evidence-based guide*, (Chapter 2, pp. 31-58). New York: Guilford Press.
- Hanson, R.F. (2002). Reactive Attachment Disorder: What do we really know about this diagnosis? *APSAC Advisor*, *14*(3), 10 – 12.
- Hanson, R.F., & Spratt, E.G. (2000). Reactive attachment disorder: What we know about the disorder and implications for treatment. *Child Maltreatment*, *5*, 137-145.
- Liotti, G. (2009). Attachment & Dissociation. In P. Dell & J. O'Neil (Eds.), *Dissociation and the dissociative disorders: DSM- V and beyond* (pp. 53-65). New York: Routledge.
- Minde, K (2003). Attachment problems as a spectrum disorder: Implications for diagnosis and treatment. *Attachment-and-Human Development*, *5*, 289-296.
- Osofsky, J. (Ed.) (2004). *Young children and trauma*. New York: The Guilford Press.
- Schore, A (2009). Attachment trauma and the developing right brain. In P. Dell & J. O'Neil (Eds.). *Dissociation and the dissociative disorders: DSM-V and beyond*. (pp. 107-141). New York: Routledge.
- Zeanah, C. H. (2005). *Handbook of infant mental health* (2nd ed.). New York: The Guilford Press.
- Zeanah, C., Boris, N., & Lieberman, A. (2000). Attachment disorders in infancy. In A. Sameroff, M. Lewis, and S. Miller (Eds.), *Handbook of developmental psychopathology* (2nd ed), (pp. 293-307). Dordrecht, Netherlands: Kluwer Academic Publishers.

*This page
was intentionally
left blank*