

Practice Parameter for the Assessment and Treatment of Children and Adolescents With Reactive Attachment Disorder of Infancy and Early Childhood

ABSTRACT

This parameter reviews the current status of reactive attachment disorder with regard to assessment and treatment. Attachment is a central component of social and emotional development in early childhood, and disordered attachment is defined by specific patterns of abnormal social behavior in the context of "pathogenic care." Clinically relevant subtypes include an emotionally withdrawn/inhibited pattern and a socially indiscriminate/disinhibited pattern. Assessment requires direct observation of the child in the context of his/her relationships with primary caregivers. Treatment requires establishing an attachment relationship for the child when none exists and ameliorating disturbed attachment relationships with caregivers when they are evident. Coercive treatments with children with attachment disorders are potentially dangerous and not recommended. *J. Am. Acad. Child Adolesc. Psychiatry*, 2005;44(11):1206–1219. **Key Words:** attachment, reactive attachment disorder, indiscriminate behavior, practice parameter, practice guideline.

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ATTRIBUTION

For much of the past century, extremely adverse caregiving environments have been associated with aberrant social behaviors in young children. Reactive attachment disorder (RAD) is the clinical disorder that defines distinctive patterns of aberrant behavior in young children who have been maltreated or raised in environments that limit opportunities to form selective attachments. Although there are few studies of children diagnosed with RAD using the *DSM-IV-TR* (American Psychiatric Association, 2000) criteria, there is growing consensus about both principles of assessment of RAD and safe and effective treatments for RAD. This parameter describes the assessment and treatment of RAD.

LITERATURE REVIEW

The list of references for this practice parameter was developed by searches of *Medline* and *Psychological Abstracts* by reviewing bibliographies of book chapters (12) and review articles (3), and by asking colleagues for suggested source materials. A *Medline* search of articles published since 1980 was conducted and

updated through March 2003 and yielded 45 references. A search of *PsychINFO* for articles published since 1980, also conducted through March 2003, yielded 49 references. A more extended search of related articles yielded another 456 references. In addition, searches of relevant publications by the following authors were conducted because of their expertise in this area: Neil W. Boris, Kim Chisholm, Patricia Crittenden, Mary Dozier, Alicia Lieberman, Mary Main, Thomas O'Connor, Michael Rutter, Anna Smyke, Marinus van IJzendoorn, and Charles H. Zeanah. Search words included reactive attachment disorder, disinhibited attachment, and attachment disorders in childhood.

ATTACHMENT AND ITS DEVELOPMENT

Attachment may be defined as the organization of behaviors in the young child that are designed to achieve physical proximity to a preferred caregiver at times when the child seeks comfort, support, nurturance, or protection. Typically, preferred attachment appears in the latter part of the first year of life as evidenced by the appearance of separation protest and stranger wariness.

Newborns recognize their mother's smell and sound soon after birth, but they express no preference for a particular person to provide comfort for distress. Between 2 and 7 months of age, infants are motivated to interact socially with a variety of partners, familiar and unfamiliar. During this time, the infant may be more readily comforted by a familiar caregiver, although he or she is generally able to be soothed by unfamiliar adults as well. However, at around 7 to 9 months, infants begin to exhibit reticence around unfamiliar adults (stranger wariness) and to protest separations from familiar caregivers (separation protest). Once these behaviors have appeared, the infant is said to be attached.

Infants become attached to caregivers with whom they have had significant amounts of interaction (Boris et al., 1997, 1999). Although no definitive data are available in our culture, this appears to be a relatively small number of adults whom the infant learns through experience that he or she can count on to provide comfort, support, nurturance, and protection, especially in times of stress. These attachment figures appear to be arranged hierarchically in terms of strength of preference, so that the infant has a most preferred caregiver, a next most preferred caregiver, and so forth (Bowlby, 1982). That infants have limits to their capacities to

adapt to large numbers of caregivers seems clear, given that serious attachment disturbances are evident in settings in which infants must depend on large numbers of caregivers (Smyke et al., 2002; Tizard and Rees, 1975). Nevertheless, we do not know what the limits of their adaptability are, that is, how many attachment figures an infant can have without problems ensuing.

Preferred attachments to caregivers may develop at any time after infants reach a developmental age of 7 to 9 months, provided that the new caregivers have sufficient involvement with the child. Thus, young children adopted out of foster care or institutions readily form attachments to their new caregivers (Chisholm et al., 1995; O'Connor et al., 1999; Tizard and Rees, 1975), although the quality of these subsequent attachments is sometimes compromised (Chisholm, 1998; O'Connor and Rutter, 2000). In fact, lack of attachment to a specific attachment figure is exceedingly rare in reasonably responsive caregiving environments; signs of RAD never have been reported in the absence of serious neglect.

By 12 months old, it becomes possible to assess the quality of an infant's attachment to a discriminated attachment figure. A laboratory paradigm known as the Strange Situation Procedure (Ainsworth et al., 1978) involves a series of interactions between a young child, an attachment figure, and an unfamiliar adult, including separations and reunions. Four patterns of attachment—secure, avoidant, resistant, and disorganized—have described individual differences in the organization of an infant's attachment behaviors with respect to an attachment figure in this procedure. The Strange Situation Procedure has been conducted in many cultures throughout the world. Although there is variability in distributions within and across different cultures, the same four patterns are evident (van IJzendoorn and Sagi, 1999). These patterns of attachment are relationship specific rather than within-the-child traits in that the same child's pattern of attachment may be different with different caregiving adults (Steele et al., 1996). These patterns have been associated with different types of caregiving in the first year of life (reviewed by Weinfield et al., 1999) and with differing adaptation in the preschool years and beyond (Sroufe, 1988; Weinfield et al., 1999).

Although the Strange Situation Procedure has been enormously useful in developmental attachment research, its clinical utility is limited by several factors.

First, how sensitive or specific it is in picking up attachment disturbances for a given child is unclear. Second, it constrains the behavior of the parent considerably, making its ecological validity (application beyond the laboratory) questionable (Crowell and Fleischman, 1993). Third, it is designed to assess the quality of an existing attachment relationship, although in clinical settings an important question is whether an attachment exists at all (Zeanah and Boris, 2000). In fact, the relationship between patterns of attachment in the Strange Situation Procedure and RAD is not yet clear (O'Connor, 2002). Finally, the Strange Situation Procedure classifications of attachment are less well validated in children older than 20 months.

In children older than 20 months, in fact, there are two systems of classifications. For children 2½ to 4½ years old, the Cassidy and Marvin (unpublished, 1992) system describes secure, avoidant, dependent (ambivalent), controlling, and insecure/other patterns of attachment. These classifications are derived from a parent-child separation/reunion paradigm similar to the Strange Situation Procedure. In contrast, the Preschool Assessment of Attachment (Crittenden, 1992; Crittenden and Claussen, 1994) describes secure/balanced, defended, coercive, defended/coercive, anxious/depressed, and insecure other. As Solomon and George (1999) have pointed out, the only comparison of the two systems yielded low levels of concordance in the major patterns of attachment, even with regard to secure versus insecure (Crittenden and Claussen, 1994).

Strange Situation Procedure classifications of attachment are neither clinical diagnoses nor indicators of psychopathology. Rather, insecure attachment (avoidant or resistant attachment) is a risk factor and secure attachment is a protective factor associated with increased or decreased probability of maladaptation or developing psychopathology (Sroufe, 1988). Stronger links with psychopathology are evident for infants who exhibit disorganized attachments to their primary caregivers (Green and Goldwyn, 2002). van IJzendoorn et al. (1999) reported in a meta-analysis of 12 studies involving 734 dyads a modest effect size of 0.29 between disorganized attachment and externalizing symptoms. Finally, other clinical disorders, including dissociative disorder symptoms (Carlson, 1998; Ogawa et al., 1997), and other internalizing and externalizing disorders have been associated with disorganized attachment (Greenberg, 1999; Lyons-Ruth and Jacobvitz, 1999).

In addition to being an important risk factor for various clinical disorders, attachment also may be compromised by other risk factors that give rise to psychiatric symptoms and disorders. In fact, given that the capacity for attachment is innate, the challenge is to determine what is a disorder of attachment and what is a disorder associated with insecure or disorganized attachment.

An initial question is how to define clinical disorders of attachment, that is, conditions requiring treatment, as opposed to risk factors for subsequent disorders. Zeanah et al. (1993) proposed that disturbances of attachment become clinical disorders “when the emotions and behaviors displayed in attachment relationships are so disturbed as to indicate or substantially to increase the risk for persistent distress or disability in the infant” (p. 338). This definition leaves substantial leeway for clinicians to interpret disturbances in behaviors and emotions as well as distress and disability. Nevertheless, to date, data do not appear to justify a more precise definition.

BRIEF HISTORY

Although consistent clinical descriptions of disordered attachment in infancy and early childhood have been available for more than 50 years (Bowlby, 1944; Levy, 1937; Spitz, 1950), the formal nosological criteria for clinical disorders of attachment have a rather brief history. The diagnosis of RAD was first introduced in 1980 with the publication of *DSM-III* (American Psychiatric Association, 1980). This early version of the disorder included growth failure and lack of social responsiveness as central features. *DSM-III* required that evidence of the disorder be apparent before 8 months old. This was a curious requirement in that an attachment disorder had to be apparent before the age when focused attachment behavior is expected to appear in humans (i.e., around 7 to 9 months).

DSM-III-R (American Psychiatric Association, 1987) criteria eliminated the link between failure to thrive and RAD, and they specified only that the age at onset be within the first 5 years. Two types of the disorder, “inhibited” and “disinhibited,” also were introduced with *DSM-III-R* (American Psychiatric Association, 1987), and these persisted in both *DSM-IV* (American Psychiatric Association, 1994) and *ICD-10* (World Health Organization, 1992) with only minor modifications. In the *DSM-III-R* (American Psychiatric Association,

1987), the disorder was centered on abnormal social relatedness across a range of social contexts.

All of these criteria were developed and refined without the benefit of data because there were no published studies evaluating or even using the criteria for attachment disorders between 1980 and 1994. In fact, the criteria in *DSM-IV* received virtually no attention until Zeanah et al. (1993) criticized the criteria as inadequate to describe children who had seriously disturbed attachment relationships rather than no attachment relationship at all. At about the same time, Richters and Volkmar (1994) published a series of case studies illustrating clinical examples of RAD. Since then, more research has appeared examining both the criteria and the constructs of RAD, although there remains a paucity of research in this area.

The *Diagnostic Classification: 0 to 3 (DC:0-3)*, published in 1994, was designed to address the need for a systematic, developmentally based approach to the classification of mental health and developmental difficulties in the first 4 years of life (Zero to Three/National Center for Clinical Infant Programs, 1994). A revised version of *DC:0-3*, to be called *DC:0-3R* (Zero to Three/National Center for Infants, Toddlers, and Families, in press), will be published in Spring 2005. *DC:0-3* included a diagnosis called "reactive attachment deprivation/maltreatment disorder of infancy and early childhood" that linked severe abuse or neglect to difficulties in the child's relationships with others but lacked specific operationalized diagnostic criteria. In *DC:0-3R*, the label of "reactive attachment" was removed from the diagnosis because this wording led to confusion among users of *DC:0-3* who applied this diagnosis to qualitative features of attachment relationships overall. Also, the diagnosis of deprivation/maltreatment disorder in *DC:0-3R* contains specific operationalized criteria based on the work of Boris, Zeanah, and colleagues to define developmentally appropriate modification of the current *DSM-IV* RAD criteria.

CLINICAL PRESENTATION

According to *DSM-IV-TR* (American Psychiatric Association, 2000), the essential feature of RAD is early onset of abnormal social relatedness across contexts that is distinguishable from pervasive developmental disorders and is the result of "pathogenic care" (American Psychiatric Association, 2000). Furthermore,

the behaviors should not be "accounted for solely by developmental delay" (American Psychiatric Association, 2000). In essence, children with RAD have a history of being reared in atypical environments characterized by extreme neglect, and they manifest abnormal social behaviors such as lack of responsiveness, excessive inhibition, hypervigilance, indiscriminate sociability, or pervasively disorganized attachment behaviors. Implicit in the criteria (although not addressed directly) is the absence of a clearly identifiable preferred attachment figure (Zeanah, 1996; Zeanah and Emde, 1994).

Two subtypes of RAD were first introduced in *DSM-III-R* (American Psychiatric Association, 1987); the criteria for these subtypes remain largely unchanged in *DSM-IV* (American Psychiatric Association, 1994) and *DSM-IV-TR* (American Psychiatric Association, 2000). These two subtypes are generally referred to as inhibited or emotionally withdrawn and disinhibited or indiscriminate.

Emotionally Withdrawn/Inhibited

The emotionally withdrawn/inhibited pattern is characterized by emotionally constricted and socially withdrawn behavior during interactions with others. In times of distress when young children ordinarily seek comfort from a discriminated attachment figure and respond to the comfort that is offered, children with the inhibited type of RAD exhibit aberrant responses. They do not consistently seek comfort from others and may even be fearful of seeking comfort despite observable distress. When comfort is offered by a caregiver, these children may fail to respond or may actively resist that comfort. These responses are not isolated or rare but rather are characteristic patterns over time. This pattern of RAD has been identified in children with histories of maltreatment (Boris et al., 1998, 2004; Zeanah et al., in press) and in children who are being reared in institutions (Smyke et al., 2002). However, the overlap between inhibited attachment behavior and hyperarousal symptoms associated with posttraumatic stress disorder raises the possibility that young children who are inhibited around their caregivers may be more appropriately conceptualized as having an anxiety disorder (Hinshaw-Fuselier et al., 1999; O'Connor, 2002). As yet, there are few available data on whether the inhibited subtype of RAD overlaps with acute stress disorder or posttraumatic stress disorder.

Children with the inhibited subtype of RAD also may exhibit a variety of difficulties with regulation of emotions. Absence of expected positive affect, sudden outbursts of crying, persistent irritability, or anger/aggression in response to attempts at comforting have been described in the literature (Boris and Zeanah, 2005; Hinshaw-Fusilier et al., 1999; Zeanah et al., 1993, 2000). Although “hypervigilant or highly ambivalent responses” are required by *DSM-IV-TR* for a diagnosis of RAD, viewing emotion regulation problems and aggression as core symptoms of RAD clearly broadens the definition of this disorder, leading to diagnostic imprecision (O’Connor, 2002; O’Connor and Zeanah, 2003). See the discussion of comorbidity below.

Indiscriminate/Uninhibited

The disinhibited type of RAD is characterized by children who, beginning before age 5, may approach unfamiliar adults without any reticence, seek or accept comfort from unfamiliar adults, protest separation from total strangers, or wander away from their caregiver without checking back. They fail to turn selectively to discriminated attachment figures, seemingly willing to seek and accept comfort from almost anyone, including strangers. They are sometimes considered attention seeking, shallow, and superficial interpersonally.

The disinhibited type of RAD has been described both in children who have been maltreated and in children who have been institutionalized. In fact, indiscriminate behavior is one of the most persistent signs of social abnormalities in young children adopted out of institutions (Zeanah, 2000).

In *DSM-IV-TR*, the two subtypes of RAD are mutually exclusive and the clinician is required to specify which subtype is present. Nevertheless, recent evidence suggests that some severely deprived institutionalized children may exhibit both inhibition and indiscriminate sociability (Smyke et al., 2002; Zeanah et al., 2002).

Other types of disturbed attachment relationships have been proposed as disorders, including attachment relationships characterized by child behavior that is self-endangering, extremely fearful, vigilant, and hypercompliant or role-reversed. Although these have been well described in case reports and identified reliably in preliminary studies (Boris et al., 1998, 2004; Zeanah et al., submitted), their validation is not well established. In particular, how these relationship disturbances relate

to the emotionally withdrawn and disinhibited types described in *DSM-IV-TR* is unclear.

NATURAL COURSE

It is widely accepted that the core features of RAD are not captured in other diagnostic categories (O’Connor, 2002; Rutter, 2000); however, the course of RAD is not well studied. It is clear that a proportion of children with histories of serious neglect or institutional rearing manifest signs of RAD, but there have been few efforts to examine symptom patterns over time. In fact, virtually the entire database derives from studies published from four longitudinal studies of children raised in institutions, although even these were for the most part not explicitly focused on signs of RAD in young children.

Findings from these studies converge in suggesting that persistence of the inhibited pattern of RAD is exceedingly rare in children adopted out of institutions into more normative caregiving environments (Chisholm, 1998, 1995; Goldfarb, 1943, 1945a,b; Hodges and Tizard, 1978, 1989; O’Connor and Rutter, 2000; O’Connor et al., 1999; Tizard and Rees, 1975). Although the quality of attachments that these children form with subsequent caregivers may be compromised, they probably no longer meet criteria for inhibited RAD (Chisholm, 1998; Marcovitch et al., 1997; O’Connor et al., 2003). The same group of studies suggests that a minority of adopted, institutionalized children exhibit persistent indiscriminate sociability even after more normative caregiving environments are provided (Zeanah, 2000). Indiscriminate sociability may persist for years, even among children who subsequently exhibit preferred attachment to their new caregivers. In the only longitudinal study that has studied children with indiscriminate behavior into adolescence, these children were significantly more likely to exhibit poor peer relationships (Hodges and Tizard, 1989).

As yet, there are no data compatible with the idea that there is a critical period for attachment formation. Thus, in studies of young children adopted out of institutions, there is no evidence that these children do not form attachments to their adoptive parents. The attachments that institutionalized children form after adoption are, however, frequently atypical, insecure, and/or disorganized (Chisholm, 1998; O’Connor et al., 2003).

Although these longitudinal data are important, the question of whether attachment disorders can reliably be diagnosed in older children and adults has not been resolved. It is clear that central attachment behaviors used for the diagnosis of RAD, such as proximity seeking, change markedly with development. Defining what behaviors in 12 year olds, for instance, are analogous to proximity seeking in toddlers is difficult. Even developmental attachment research has no substantially validated measures of attachment in middle childhood or early adolescence, leaving the question of what constitutes clinical disorders of attachment even less clear. Given that *DSM-IV-TR* requires that symptoms of RAD be evident before age 5, the diagnosis of RAD in older children and adults is dependent on a reliable history of a child's early attachment behavior. For groups such as children adopted out of foster care or institutions, a history detailing their early behavior is often unavailable.

Nevertheless, there have been reports that many oppositional or aggressive older children, especially those who have been maltreated or raised in institutions, have RAD (Levy and Orlans, 2000). The diagnosis of RAD in these reports is based on an expanded set of diagnostic criteria for RAD; the additional criteria overlap with the disruptive behavior disorders, including conduct disorder (CD), oppositional defiant disorder (ODD), and attention-deficit disorder. Claims that many children with a diagnosis of attention-deficit/hyperactivity disorder and bipolar disorder, in fact, have RAD highlight the problems with diagnostic precision in this area (Levy and Orlans, 2000). In effect, *DSM-IV-TR* criteria have been largely transformed by groups of clinicians such that psychopathic qualities such as shallow or fake emotions, superficial connections to others, lack of remorse, and failures of empathy are viewed as core features of RAD (Levy and Orlans, 1999, 2000). There is certainly evidence that some maltreated children exhibit both disruptive behavior disorders and disturbances in interpersonal relatedness. Historical accounts of so-called "affectionless psychopaths" detail the challenges that children deprived by institutionalization are alleged to present (Wolkind, 1974), although this construct was never validated. Furthermore, foster and adoptive parents who care for such children can become overwhelmed by managing remorseless aggression. Although some of these children may have met criteria for RAD as young children, few are described as either indiscriminate or inhibited in their social relationships.

There are two significant problems with the trend toward stretching the criteria for RAD to extend the diagnosis to older children. First, diagnostic precision is lost when signs such as oppositional behavior and aggression are viewed as aberrant attachment behaviors in older children. To say that these children do not have ODD or CD because their behavior is better explained by negative attachment experiences is to suggest an etiological pathway that can be neither proved nor disproved.

Second, untested alternative therapies, loosely based on the proposed etiological model for RAD in older children, have been developed and implemented, sometimes with tragic results. Just as parents were separated from their autistic children in the 1950s because it was thought that the parents' aloofness had caused the disorder, parents of older children whose aggressive symptoms are presumed to be attachment related have been encouraged to physically restrain their children for purposes of reattachment or expose them to other coercive "treatments."

EPIDEMIOLOGY

Few data exist about the prevalence of RAD, although Richters and Volkmar (1994) estimated the prevalence to be less than 1%. Available studies have used selected high-risk populations. In a retrospective study of all children from one U.S. county who entered foster care because of abuse or neglect before they were 4 years old, 38% had signs of emotionally withdrawn or indiscriminate RAD according to *DSM-IV* and *ICD-10* criteria (Zeanah et al., 2004). In another highly selective sample of young institutionalized children in Bucharest, Romania, at least 40% of the children had clinically significant signs of RAD and another 33% had some signs of RAD (Smyke et al., 2002; Zeanah et al., 2002).

Data accumulated to date suggest that RAD is rare in most settings, however, and it is so far unreported except in cases of maltreatment or institutional rearing under conditions of social neglect. Given that *DSM-IV* criteria require a history of "pathogenic care," the diagnosis should be questioned in any case in which a history of neglect cannot be documented.

DIFFERENTIAL DIAGNOSIS AND COMORBIDITY

There are few direct data available about disorders that may be comorbid with RAD. There are a number of problems that have been documented to arise from

the same risk conditions that give rise to RAD, that is, disorders that are associated with institutional rearing or with maltreatment.

First among these is mental retardation because of the known association between social neglect and developmental delays. However, developmental delays are often reversible, much like the signs of RAD, once a more normative caregiving environment is provided. Developmental delays in institutionalized children are common (Johnson, 2000), but these children have been documented to make steady gains after adoption (Castle et al., 1999; O'Connor et al., 2000; Rutter, 1998).

Similarly, language disorders are associated with neglect and language delays have been documented in institutionalized children (Albers et al., 1997; Dubrovina, 1991; Groze and Ileana, 1996; Smyke et al., 2002) and in young, maltreated children (Rosenfeld et al., 1997). *DSM-IV* criteria for RAD explicitly exclude children with pervasive developmental disorders (PDDs) from receiving a diagnosis of RAD. Both PDDs and RAD may share abnormalities in social and emotional reciprocity and difficulties in emotion regulation. Still, the social abnormalities of PDDs are believed to be distinguishable from those of RAD. Persistently restricted, repetitive, and stereotyped patterns of behaviors, interests, and activities ought to be more characteristic of PDD than of RAD. The child with RAD also ought to have more reversible social abnormalities when the child is in a more favorable environment, although this may be difficult to discern in a cross-sectional evaluation. That institutional rearing has been implicated in the etiology both of RAD and PDD (Rutter et al., 1999) makes clear that the distinction may be challenging in some cases.

Posttraumatic stress disorder has been validated in early childhood (Scheeringa et al., 1995, 2001, 2003), and some children have been documented to show both posttraumatic symptoms and RAD (Hinshaw-Fuselier et al., 1999). No studies exist, however, documenting the degree of comorbidity between RAD and posttraumatic stress disorder, although maltreatment is associated with problems in regulation of emotions, hypervigilance, and withdrawal (Cicchetti et al., 1995).

RECOMMENDATIONS

Each recommendation in this parameter is identified as falling into one of the following categories of

endorsement, indicated by an abbreviation in brackets after the statement. These categories indicate the degree of importance or certainty of each recommendation.

[MS] *Minimal standards* are recommendations that are based on substantial empirical evidence (such as well-controlled, double-blind trials) or overwhelming clinical consensus. Minimal standards are expected to apply more than 95% of the time (i.e., in almost all cases). When the practitioner does not follow this standard in a particular case, the medical record should indicate the reason.

[CG] *Clinical guidelines* are recommendations that are based on empirical evidence (e.g., open trials, case studies) and/or strong clinical consensus. Clinical guidelines apply approximately 75% of the time. These practices should always be considered by the clinician, but there are exceptions to their application.

[OP] *Options* are practices that are acceptable but not required. There may be insufficient empirical evidence to support recommending these practices as minimal standards or clinical guidelines. In some cases, they may be the perfect thing to do, but in other cases they should be avoided. If possible, the practice parameter will explain the pros and cons of these options.

[NE] *Not endorsed* refers to practices that are known to be ineffective or contraindicated.

Recommendation 1.

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. Observations of the Child's Behavior with Unfamiliar Adults are also Necessary for Diagnosis. Given the Association Between a Diagnosis of RAD and a History of Maltreatment, the Clinician Should also Gather a Comprehensive History of the Child's Early Caregiving Environment, Including from Collateral Sources (e.g., Pediatricians, Teachers, or Caseworkers Familiar with the Child) [MS].

The AACAP practice parameter on assessment in infancy and early childhood includes basic approaches to clinical assessment of children younger than 5, which are useful for evaluation of RAD (American Academy of Child and Adolescent Psychiatry, 1997). Signs of disturbed attachment in young children are listed in Table 1. The caregiver's report of the child's attachment behavior

TABLE 1
Behavioral Signs of Disturbed Attachment in Young Children

Affection	
Adaptive	Showing affection across a range of interactions
Maladaptive	Lack of affection interchanges across a range of social settings, or “promiscuous” affection with relatively unfamiliar adults
Seeking comfort	
Adaptive	Seeking comfort from a discriminated adult caregiver
Maladaptive	Lack of comfort seeking when hurt, frightened, or ill, or comfort seeking in an odd or ambivalent manner (e.g., increased distress when the child does not seek comfort)
Reliance on for help	
Adaptive	Willingness to seek help from discriminated caregivers when problems are too difficult to solve alone
Maladaptive	Excessive dependence on caregiver or inability to seek and use supportive presence of attachment figure when needed
Cooperation	
Adaptive	Generally cooperative behavior with caregiver
Maladaptive	Pervasive lack of compliance with caregiver requests and demands as a pervasive feature interaction, or fearful overcompliance to caregiver instructions (“compulsive compliance”)
Exploratory behavior	
Adaptive	Uses attachment figure as a secure base from which to venture out and explore novelty in environment
Maladaptive	Failure to check back with caregiver in unfamiliar settings after venturing away or nearly complete unwillingness to leave caregiver to explore
Controlling behavior	
Adaptive	Little evidence of controlling behavior directed toward caregiver
Maladaptive	Oversolicitous and/or age-inappropriate caregiving behavior by the child toward the caregiver, or excessively bossy or punitive controlling of caregiver by the child
Reunion responses	
Adaptive	If distressed, seeking comfort from attachment figure, or if not distressed, establishing a positive reconnection through nonverbal or verbal communication of positive affect or describing what transpired to child to separation
Maladaptive	Failure to reestablish interaction after separation including active ignoring/avoiding behaviors, intense anger, or obvious lack of affection, or failure to resolve distress engendered by separation, or any evidence of disorganized attachment behavior
Response to strangers	
Adaptive	Initial reticence about social engagement, which is more marked in unfamiliar settings
Maladaptive	Immediate engagement without initial wariness, extensive physical contact without referencing caregiver, willingness to leave caregiver (and go with stranger) without protest

Note: Adapted from Zeanah et al. (1993).

can also be useful. The clinician should gather a detailed history of, for example, the child’s pattern of comfort seeking beginning with the onset of stranger wariness and progressing through to time of assessment. Observational data can be extremely helpful in the diagnosis of RAD, and asking the caregiver to leave the room, which may stress some dyads, often will provide useful data. Furthermore, setting up interactions in which the parent and child must cooperate (for example, to complete a puzzle that is selected to be somewhat beyond the child’s cognitive capacity) will also provide useful data. Typically, a full assessment takes place over a minimum of two to three visits (Boris et al., 1997; Zeanah et al., 2000).

Recommendation 2. A Relatively Structured Observational Paradigm Should be Conducted so that Comparable Behavioral Observations can be Established Across Relationships [CG].

The caregiver–child relationship forms both the basis for assessment of RAD symptoms and the nexus for

treatment of RAD. Structured observations allow the clinician to capture how the child behaves with one individual as compared with another, while holding the observational procedure constant. A number of approaches to structuring a comprehensive assessment of a caregiver–child relationship have been described (Clark et al., 1993; Gaensbauer and Harmon, 1981; Zeanah et al., 2000). These approaches generally involve some combination of episodes such as play, teaching, and separation/reunion and involve careful observations of how the child behaves with a discriminated attachment figure compared with an unfamiliar adult. If attached, the child should exhibit clear preferences for the attachment figure for nurturance, support, comfort, and protection. A separation is expected to be mildly stressful for young children in our culture and is often included to increase the probability of observing young children when they are motivated to seek comfort. All of the behaviors in Table 1 are important to assess. Sole reliance on structured laboratory paradigms such as the Strange Situation Procedure (Ainsworth et al., 1978) is likely to be insufficient. As noted, this procedure has

been criticized for overly constraining the behavior of the parent, lacking clear ecological validity, and being susceptible to situational factors. For this reason, other paradigms better adapted to clinic settings have been recommended (Boris et al., 1997; Zeanah et al., 2000).

One possible model of assessment is outlined in Table 2. The procedure described in Table 2 was designed for use by clinicians working in office or clinical settings. It can be administered without additional adults being involved, although ideally it is videotaped for later review. An observation room with a one-way mirror allows the clinician to observe the parent and child during Episode 5, but if such a setting is not available then the caregiver can later report on the child's behavior during the clinician's absence. The novel (scary) toy episode is included so that the clinician may observe preferential comfort seeking, but it is not essential to include. Throughout the procedure, the emphasis is on comparing the child's behavior with the familiar attachment figure (i.e., parent/caregiver) and unfamiliar adult (i.e., clinician).

Recommendation 3. After Assessment, any Suspicion of Previously Unreported or Current Maltreatment Requires Reporting to the Appropriate Law Enforcement and Protective Services Authorities [MS].

An early history of maltreatment, serial foster care, or institutionalization is necessary for *DSM-IV* diagnosis

of RAD. Children who have been maltreated, in serial foster care, or institutionalized may present with a variety of negative behaviors that are difficult for caregivers to manage. Previously maltreated children with negative behaviors are at high risk of being retraumatized, and the clinician's first order of business must be to attempt to assess the safety of the current placement. Clinical judgment regarding the appropriateness of a given placement should include consideration of family support and stability, caregiver response to previous interventions and willingness to take responsibility for the plight of the child, and severity and pattern of previous abuse (Britner and Mossler, 2002).

Recommendation 4. Maltreated Children are at High Risk of Developmental Delays, Speech and Language Deficits or Disorders, and Untreated Medical Conditions. Referral for Developmental, Speech, and Medical Screening may be Indicated [CG].

There is evidence that maltreated children generally do not receive adequate assessment and intervention for developmental delays, language disorders, and medical conditions (Reems, 1999; Rosenfeld et al., 1997). Age-appropriate screens for developmental delays, speech and language assessment, and referral for a general pediatric examination and routine testing are often necessary.

TABLE 2
Clinical Observation of Attachment

Episode 1	5 minutes	The clinician observes parent-child "free play." <i>Note especially familiarity, comfort, and warmth in the child as he/she interacts with attachment figure.</i>
Episode 2	3 minutes	The clinician talks with, then approaches, then attempts to engage the child in play. <i>Most young children exhibit some reticence, especially initially, about engaging with an unfamiliar adult.</i>
Episode 3	3 minutes	The clinician picks up child and shows him/her a picture on the wall or looks out window with the child. <i>This increases the stress for the child. Again, note the child's comfort and familiarity with this stranger.</i>
Episode 4	3 minutes	The caregiver picks up the child and shows him/her a picture on the wall or looks out window with the child. <i>In contrast to stranger pick up, the child should feel obviously more comfortable during this activity.</i>
Episode 4a ^a	1 minute	The child is placed between the caregiver and a stranger, and a novel (e.g., scary/exciting) remote control toy is introduced. <i>The child should seek comfort preferentially from parent. If interested rather than frightened, the child should share positive affect with parent.</i>
Episode 5	3 minutes	The clinician leaves the room. <i>This separation should not elicit much of a reaction in the child because the clinician is a stranger.</i>
Episode 6	1 minute	The clinician returns. <i>Similarly, the child should not be much affected by the stranger's return.</i>
Episode 7	3 minutes	The caregiver leaves the room. <i>The child should definitely take notice of caregiver's departure, although not necessarily exhibit obvious distress. If the child is distressed, then the clinician should be little comfort to the child.</i>
Episode 8	1 minute	The caregiver returns. <i>The child's reunion behavior with the caregiver should be congruent with separation behavior. That is, distressed children should seek comfort and nondistressed children should reengage positively with the caregiver by introducing them to a toy or activity or talking with them about what occurred during the separation.</i>

Note: Adapted from Boris et al. (2004).

^a Optional episode.

Recommendation 5. The Most Important Intervention for Young Children Diagnosed with RAD and Who Lack an Attachment to a Discriminated Caregiver is for the Clinician to Advocate for Providing the Child with an Emotionally Available Attachment Figure [MS].

A randomized controlled trial of foster care as an alternative to institutional care conducted in Bucharest, Romania, has demonstrated substantial reductions in signs of both emotionally withdrawn/inhibited and indiscriminately social/disinhibited RAD after the children were removed from institutions and placed in foster care (Zeanah et al., 2003). Foster parents were supervised by social workers who were trained to facilitate building new attachment relationships between foster parents and the children in their care. In this same study, the degree of sensitive caregiving that children received in the institution was inversely related to signs of emotionally withdrawn/inhibited reactive attachment disorder (Zeanah et al., 2004). Sensitive caregiving and psychological investment in the child, which are essential ingredients of healthy attachments, are far more likely in families than in institutions.

Recommendation 6. Although the Diagnosis of RAD is Based on Symptoms Displayed by the Child, Assessing the Caregiver's Attitudes Toward and Perceptions about the Child is Important for Treatment Selection [CG].

The complex interaction between a caregiver's attitudes and behaviors (e.g., his or her "parenting style") and a given child's pattern of reactivity influences attachment. Interactive strengths and weaknesses are conceptualized as being an issue of the "goodness of fit" between caregiver and child. It is not uncommon for caregivers of children with RAD to feel disconnected from the child and to react with anger or anxiety. Patterns of discipline can become overly authoritarian, leading to additional disruption in the child's attachment behavior. Allowing the caregiver to talk about his or her relationship with the child and reviewing that narrative for evidence of distortion or derogation is an important part of assessment and a first step in selecting an approach to intervention. Generally, this can be done as part of the open-ended assessment of the caregiver's view of the relationship. See the practice parameter for the psychiatric assessment of infants and toddlers (American Academy of Child and Adolescent Psychiatry, 1997).

Recommendation 7. Children with RAD are Presumed to Have Grossly Disturbed Internal Models for Relating to Others. After Ensuring That the Child is in a Safe and Stable Placement, Effective Attachment Treatment Must Focus on Creating Positive Interactions with Caregivers [MS].

The building blocks of secure attachment are interactive moments in which the caregiver's sensitively attuned behavior serves to help the child develop an internal sense of security. There are three basic psychotherapeutic modalities to help children with RAD and their caregivers attune to each other and interact more positively: working through the caregiver, working with the caregiver-child dyad (and/or family) together, and/or working with the child alone.

First, the clinician can work through the caregiver by helping him/her learn how to establish positive interactions with a hard-to-reach child, by helping the caregiver manage the child's behavior, or by working intensively to address the caregiver's own feelings of anxiety, frustration, or anger when needed. When a caregiver is not extremely stressed and the clinician has established through observation and interview that the caregiver is emotionally available and readily able to reflect on the child's feelings, it may be possible to train the caregiver as a cotherapist and work to strengthen the child's attachment with the caregiver by encouraging sensitive responsiveness (Hart and Thomas, 2000). The advantage of solely working through the caregivers is that the therapist can avoid being the focus of the child's attachment behavior, while giving the caregivers the message that they are capable of managing the child themselves (Hart and Thomas, 2000). In some cases, however, caregivers may be so overwhelmed and angry that coaching proves ineffective. When caregiver stress is high, working through the caregiver may be difficult until the caregiver's own symptoms are addressed. It is not often possible for highly stressed caregivers who have negative perceptions of their children to maintain sensitive responsiveness until their own stress is relieved. Sometimes caregivers need individual treatment, though often the clinician will choose also to work with the primary caregiver-child dyad.

Dyadic work, therapy with the child and primary caregiver together, is the second basic modality for working to address symptoms of RAD (Lieberman and Zeanah, 1999). There are at least two established models of effective dyadic interactive therapy, infant-parent

psychotherapy (Lieberman et al., 2000) and interaction guidance (McDonough, 2000). Although neither has been examined formally in children with attachment disorders, each has been evaluated in children with disturbed attachment relationships (Cramer et al., 1990; Lieberman et al., 1991). Infant–parent psychotherapy focuses primarily on the caregiver and child’s experience of one another and on altering patterns of emotional communication in the dyad. The therapist helps the caregiver appreciate the emotional experience of the child and its connection to the emotional experience of the caregiver. Interaction guidance focuses on behavioral interaction and uses videotaping to allow the clinician to review with the caregiver specific patterns of interaction while shaping (mostly through suggestion and positive reinforcement) the caregiver’s responses. In both approaches, the behaviors listed in Table 1 are useful focal points for intervention.

A basic tenet in dyadic therapy is to focus on parenting strengths as reflected in observed moments of clear caregiver–child engagement. Once trust is built through positive reinforcement of the caregiver, the therapist can point out and process moments of frustration and disengagement to begin to reshape the interactions. Because it is frequently difficult for parents to self-reflect in the moment, reflective function can be enhanced by reviewing videotaped sessions.

Although dyadic therapy often is indicated for attachment disturbances and disorders, subsequently it may be necessary to widen the intervention to use a family-based treatment. This is often a second stage of treatment in which the gains made in dyadic therapy are reinforced by involving other family members.

The third modality for intervention is individual therapy with the child. Although RAD is presumed to be a within-the-child disorder, attachment theory would suggest that children with RAD are best treated with modalities that shape their social processing and interactive behavior beginning with their primary caregiving relationships. Especially with younger children, dyadic intervention is therefore a preferred intervention strategy. Individual therapy, in which the therapist forms a trusting relationship with the patient, should be considered adjunctive to reduce behaviors in the child that may interfere with dyadic therapy. Of course, individual therapy, to be successful, requires active collaboration with the caregiver.

Recommendation 8. Children Who Meet Criteria for RAD and Who Display Aggressive and Oppositional Behavior Require Adjunctive Treatments [CG].

There is no evidence about whether the aggression associated with RAD is distinguishable from that associated with ODD or CD. Models of treatment for ODD or CD are often effective, even for children who are aggressive but do not meet criteria for comorbid ODD or CD. For instance, well-tested treatment approaches for aggression, ODD, and CD, such as parent education or multisystemic therapy, may augment the therapeutic interventions outlined in Recommendation 6 (Brestan and Eyberg, 1998; Webster-Stratton, 1998; Webster-Stratton and Hammond, 1997).

The lack of available data on both short-term and long-term effects of pharmacological agents on young children’s rapidly developing brains reinforces the need for a cautious approach to pharmacological intervention, particularly in preschool-age children (Greenhill et al., 2003; Jensen et al., 1999). No psychopharmacological intervention trials for RAD have been conducted. However, pharmacological intervention for comorbid disorders, such as posttraumatic stress disorder and related anxiety disorders, disruptive behavior disorders, and mood disorders, may be indicated when comprehensive assessment documents ongoing symptoms.

Recommendation 9. Interventions Designed to Enhance Attachment that Involve Noncontingent Physical Restraint or Coercion (e.g., “Therapeutic Holding” or “Compression Holding”), “Reworking” of Trauma (e.g., “Rebirthing Therapy”), or Promotion of Regression for “Reattachment” have no Empirical Support and have been Associated with Serious Harm, Including Death [NE].

It has been hypothesized that the development of aggression in children who have experienced early attachment disruptions is a fear response and that an attachment-promoting response is to “break through” fear and resistance with physical holding of the child (Cline, 1992). Furthermore, the therapies designed to provide “corrective attachment experiences” for these same children, particularly those with persistent symptoms of CD and ODD, have been advocated (Levy and Orlans, 2000), despite the absence of empirical evidence that these interventions are safe or efficacious (Mercer, 2001, 2002). These treatment approaches are based on

the assumption that caregiver behaviors believed to facilitate attachment in early childhood also facilitate attachment in school-age children. Consequently, school-age children are pushed to make direct eye contact and stimulated and soothed as if they were infants (Levy, 2000). There are also reports of regressive therapies in which children are bottle fed and tightly held. In fact, there is no evidence that parent or therapist behaviors appropriate for infants are appropriate for older children.

If treatments based on physical restraint or forced eye contact are helpful with a particular child, then they are likely to work by reestablishing parental authority and control. Establishing authority and effective limit setting arguably are important components of any parent-child treatment. In fact, physical restraint for extreme aggression and uncontrolled behavior is sometimes necessary for protection of the child or family members (see American Academy of Child and Adolescent Psychiatry, 2002). Attempts to promote "reattachment" through coerced and noncontingent holding for purposes of inducing rather than containing rage is likely to be experienced by many children as humiliating and frightening. The risks to the child involved in these non-traditional approaches are unacceptably high. Recent media reports described the death of a 10-year-old girl who was undergoing "rebirthing" therapy, a variant of "holding" therapy that purports to release the child's pent-up rage by forced simulation of the birth process (Crowder, 2000). A 4-year-old adopted child also died from complications of hyponatremia secondary to water intoxication, which apparently occurred when she was restrained in a chair and forced by her parents to drink excessive amounts of water as part of an "attachment-based" treatment (Adams, 2002). For these reasons, both the American Psychiatric Association and the American Academy of Child and Adolescent Psychiatry have issued policy statements opposing coercive therapies for children with serious disturbances of attachment (American Academy of Child and Adolescent Psychiatry, 2003; American Psychiatric Association, 2002).

Children who are so aggressive that they are unmanageable in the family setting may require referral for more intensive treatment, such as residential placement. Even in these cases, physical restraint should be used judiciously and attempts to work with the family promoted.

SCIENTIFIC DATA AND CLINICAL CONSENSUS

Practice parameters are strategies for patient management, developed to assist clinicians in psychiatric decision making. AACAP practice parameters, based on evaluation of the scientific literature and relevant clinical consensus, describe generally accepted approaches to assess and treat specific disorders or to perform specific medical procedures. These parameters are not intended to define the standard of care; nor should they be deemed inclusive of all proper methods of care or exclusive of other methods of care directed at obtaining the desired results. The clinician, after considering all of the circumstances presented by the patient and his or her family, the diagnostic and treatment options available, and available resources, must make the ultimate judgment regarding the care of a particular patient.

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REFERENCES

References marked with an asterisk are particularly recommended.

- Adams B (2002), Families struggle to bond with kids. *The Salt Lake Tribune*. September 29
- Ainsworth MDS, Blehar MS, Waters E, Wall S (1978), *Patterns of Attachment: A Psychological Study of the Strange Situation*. Hillsdale, NJ: Erlbaum
- Albers LH, Johnson, DE, Hostetter MK, Iverson S, Miller LC (1997), Health of children adopted from the former Soviet Union and Eastern Europe: comparison with pre-adoptive medical records. *JAMA* 278: 922-924
- American Academy of Child and Adolescent Psychiatry (1997), Practice parameters for the psychiatric assessment of infants and toddlers (0-36 months). *J Am Acad Child Adolesc Psychiatry* 36(suppl):21S-36S
- American Academy of Child and Adolescent Psychiatry (2002), Practice parameter for the prevention and management of aggressive behavior with special reference to seclusion and restraint. *J Am Acad Child Adolesc Psychiatry* 41 (suppl):4S-25S
- American Academy of Child and Adolescent Psychiatry (2003), *Policy Statement: Coercive Interventions for Reactive Attachment Disorder*. Washington, DC: American Academy of Child and Adolescent Psychiatry
- American Psychiatric Association (1980), *Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III)*. Washington, DC: American Psychiatric Association
- American Psychiatric Association (1987), *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R)*. Washington, DC: American Psychiatric Association
- American Psychiatric Association (1994), *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)*. Washington, DC: American Psychiatric Association
- American Psychiatric Association (2000), *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*. Washington, DC: American Psychiatric Association
- *American Psychiatric Association (2002), *Position Statement: Reactive Attachment Disorder*. Washington, DC: American Psychiatric Association
- Boris NW, Aoki Y, Zeanah CH (1999), The development of infant-parent attachment: considerations for assessment. *Infant Ment Health J* 11:1-10

- Boris N, Fueyo M, Zeanah CH (1997), The clinical assessment of attachment in children under five. *J Am Acad Child Adolesc Psychiatry* 36: 291–293
- Boris NW, Hinshaw-Fuselier S, Smyke AT, Scheeringa MS, Heller SS, Zeanah CH (2004), Comparing criteria for attachment disorders: establishing reliability and validity in high-risk samples. *J Am Acad Child Adolesc Psychiatry* 43:568–577
- Boris NW, Zeanah CH (2005), Reactive attachment disorder. In: *Comprehensive Textbook of Psychiatry*, VIIIth ed., Kaplan HI, Sadock BJ, eds. Philadelphia: Williams & Wilkins, pp. 3248–3254
- Boris NW, Zeanah CH, Larrieu JA, Scheeringa MS, Heller SS (1998), Attachment disorders in infancy and early childhood: a preliminary investigation of diagnostic criteria. *Am J Psychiatry* 155:295–297
- Bowlby J (1944), Forty-four juvenile thieves. *Int J Psychoanal* 25:19–53
- Bowlby J (1982), *Attachment and Loss, Volume I*. New York: Basic Books
- Brethan EV, Eyberg SM (1998), Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *J Clin Child Psychol* 27:179–188
- Britner PA, Mossler DG (2002), Professionals' decision-making about out-of-home placements following instances of child abuse. *Child Abuse Negl* 26:317–332
- Carlson EA (1998), A prospective, longitudinal study of disorganized attachment. *Child Dev* 69:1107–1128
- Castle J, Groothues C, Bredenkamp D, Beckett C, O'Connor T, Rutter M, ERA Study Team (1999), Effects of qualities of early institutional care on cognitive attainment. *Am J Orthopsychiatry* 69:424–437
- Chisholm K (1998), A three year follow-up of attachment and indiscriminate friendliness in children adopted from Romanian orphanages. *Child Dev* 69:1092–1106
- Chisholm K, Carter MC, Ames EW, Morison SJ (1995), Attachment security and indiscriminately friendly behavior in children adopted from Romanian orphanages. *Dev Psychopathol* 7:283–294
- Cicchetti D, Toth SL, Lynch M (1995), Bowlby's dream comes full circle: The application of attachment theory to risk and psychopathology. In: *Advances in Clinical Child Psychology, vol. 17*, Ollendick TH, Prinz RJ, eds. New York: Plenum, pp 1–75
- Clark R, Paulsen A, Conlin S (1993), Assessment of developmental status and parent-infant relationships: the therapeutic process of evaluation. In: *Handbook of Infant Mental Health*, Zeanah CH, ed. New York: Guilford, pp 191–209
- Cline F (1992), *Hope for High Risk and Rage Filled Children*. Evergreen, CO: EC Publications
- Cramer B, Robert-Tissot C, Stern DN, Serpa-Rusconi S, DeMurault M, Besson G, et al. (1990), Outcome evaluation in brief mother-infant psychotherapy: a preliminary report. *Infant Ment Health J* 3:278–300
- Crittenden PM (1992), The quality of attachment in the preschool years. *Dev Psychopathol* 4:209–241
- Crittenden PM, Clausen AH (1994), Validation of two procedures for assessing quality of attachment in the preschool years. Paper presented at the biennial meeting of the International Conference on Infant Studies, Paris, France
- Crowder C (2000), Prosecutors add charges for rebirthing therapist. *Denver Rocky Mountain News*. July 29
- Crowell JA, Fleischman MA (1993), Use of structured research procedures in clinical assessments of infants. In: *Handbook of Infant Mental Health*, Zeanah H, ed. New York: Guilford, pp 210–221
- Dubrovina I (1991), *Psychological Development of Children in Orphanages (Psichologicheskoe Razvitiie Vospitanikov v Detskom Dome)*. Moscow: Prosvetshenie Press
- Gaensbauer TJ, Harmon RJ (1981), Attachment in abused/neglected and premature infants. In: *The Development of Attachment and Affiliative Systems*, Emde RN, Harmon RJ, eds. New York: Plenum, pp 263–280
- Goldfarb W (1943), The effects of early institutional care on adolescent personality. *J Exp Educ* 12:106–129
- Goldfarb W (1945a), Effects of psychological deprivation in infancy and subsequent stimulation. *Am J Psychiatry* 102:18–33
- Goldfarb W (1945b), Psychological privation in infancy and subsequent adjustment. *Am J Orthopsychiatry* 15:247–255
- Green J, Goldwyn R (2002), Attachment disorganization and psychopathology: new findings in attachment research and their potential implications for developmental psychopathology in childhood. *J Child Psychol Psychiatry* 43:835–846
- Greenberg MT (1999), Attachment and psychopathology in childhood. In: *Handbook of Attachment*, Cassidy J, Shaver P, eds. New York: Guilford, pp 469–496
- Greenhill L, Jensen P, Abikoff H, Blumer J, DeVaugh-Geiss J, Fisher C, et al. (2003), Optimizing strategies for developing and implementing psychopharmacological studies in preschool children. *J Am Acad Child Adolesc Psychiatry* 42:406–414
- Groze V, Ileana D (1996), A follow-up study of adopted children from Romania. *Child Adolesc Soc Work J* 13:541–565
- Hart A, Thomas H (2000), Controversial attachments: the indirect treatment of fostered and adopted children via parent co-therapy. *Attachment Hum Dev* 2:306–327
- Hinshaw-Fuselier S, Boris NW, Zeanah CH (1999), Reactive attachment disorder in maltreated twins. *Infant Ment Health J* 20:42–59
- Hodges J, Tizard B (1978), The effect of institutional rearing on the development of eight-year-old children. *J Child Psychol Psychiatry* 19:99–118
- Hodges J, Tizard B (1989), Social and family relationships of ex-institutional adolescents. *J Child Psychol Psychiatry* 30:77–97
- Jensen PS, Bhatara VS, Vitiello B, Hoagwood K, Feil M, Burke LB (1999), Psychoactive prescribing practices for U.S. children: Gaps between research and clinical practice. *J Am Acad Child and Adolesc Psychiatry* 38:557–565
- Johnson DE (2000), Medical and developmental sequelae of early childhood institutionalization in Eastern European adoptees. In: *Minnesota Symposia on Child Psychology: Vol. 31. The Effects of Early Adversity on Neurobehavioral Development*, Nelson CA, ed. Mahway, NJ: Erlbaum, pp 113–162
- Levy D (1937), Primary affect hunger. *Am J Psychiatry* 94:643–652
- Levy TM, Orlans M (1999), Kids who kill: attachment disorder, antisocial personality disorder and violence. *Forensic Examiner* 8:19–24
- Levy TM (2000), *Handbook of Attachment Interventions*. San Diego: Academic
- Levy T, Orlans M (2000), Attachment disorders as an antecedent to violence and antisocial patterns in children. In: *Handbook of Attachment Interventions*, Levy T, ed. San Diego: Academic, pp 1–16
- Lieberman AF, Silverman R, Pawl J (2000), Infant-parent psychotherapy. In: *Handbook of Infant Mental Health*, 2nd ed., Zeanah CH, New York: Guilford, pp 472–484
- Lieberman AF, Weston DR, Pawl JH (1991), Preventive intervention and outcome with anxiously attached dyads. *Child Dev* 62:199–209
- Lieberman AF, Zeanah CH (1999), Contributions of attachment theory to infant-parent psychotherapy and other interventions with infants and young children. In: *Handbook of Attachment*, Cassidy J, Shaver P, eds. New York: Guilford, pp 555–574
- Lyons-Ruth K, Jacobvitz D (1999), Attachment disorganization: unresolved loss, relational violence, and lapses in behavioral and attentional strategies. In: *Handbook of Infant Mental Health*, Cassidy J, Shaver P, New York: Guilford, pp 520–554
- Marcovitch S, Goldberg S, Gold A, Washington J, Wasson C, Krekewich K, et al. (1997), Determinants of behavioral problems in Romanian children adopted into Toronto. *Int J Behav Dev* 20:17–31
- McDonough S (2000), Interaction guidance: An approach for difficult-to-engage families. In: *Handbook of Infant Mental Health*, 2nd edition, Zeanah CH, ed. New York: Guilford, pp 485–493
- Mercer J (2001), Child psychotherapy involving physical restraint: techniques used in four approaches. *Child Adolesc Soc Work J* 19:303–314
- Mercer J (2002), Attachment therapy: a treatment without empirical support. *Sci Rev Ment Health Pract* 1:105–112
- O'Connor TG (2002), Attachment disorders in infancy and childhood. In: *Child and Adolescent Psychiatry: Modern Approaches*, 4th ed., Rutter M, Taylor E, eds. Boston: Blackwell, pp 776–792
- O'Connor TG, Bredenkamp D, Rutter M (1999), Attachment disturbances and disorders in children exposed to early severe deprivation. *Infant Ment Health J* 20:10–29

- O'Connor TG, Marvin RS, Rutter M, Olrick JT, Britner PA (2003), Child-parent attachment following early institutional deprivation. *Dev Psychopathol* 15:19-38
- O'Connor TG, Rutter M (2000), Attachment disorder behavior following early severe deprivation: extension and longitudinal follow-up. *J Am Acad Child Adolesc Psychiatry* 39:703-712
- O'Connor TG, Rutter M, Beckett C, Keaveney L, Kreppner JN (2000), The effects of global severe privation on cognitive competence: extension and longitudinal follow-up. *Child Dev* 71:376-390
- O'Connor TG, Zeanah CH (2003), Assessment strategies and treatment approaches. *Attachment Hum Dev*
- Ogawa JR, Sroufe LA, Weinfield NS, Carlson EA, Egeland B (1997), Development and the fragmented self: longitudinal study of dissociative symptomatology in a nonclinical sample. *Dev Psychopathol* 9: 855-879
- Reems R (1999), Children birth to three entering state's custody. *Infant Ment Health J* 20:166-174
- Richters MM, Volkmar F (1994), Reactive attachment disorder of infancy or early childhood. *J Am Acad Child and Adolesc Psychiatry* 33:328-332
- Rosenfeld AA, Pilowsky DJ, Fine P, Thorpe M, Fein E, Simms MD, et al. (1997), Foster care: an update. *J Am Acad Child and Adolesc Psychiatry* 36:448-457
- Rutter M (1998), Developmental catch-up, and delay, following adoption after severe global privation. *J Child Psychol Psychiatry* 39: 465-476
- Rutter M (2000), Clinical implications of attachment concepts: retrospect and prospect. *J Child Psychol Psychiatry* 36:1179-1198
- Rutter M, Anderson-Wood L, Beckett C, Bredenkamp D, Castle J, Groothues C, (1999), Quasi-autistic patterns following severe early global privation. *J Child Psychol Psychiatry* 40:537-549
- Scheeringa M, Zeanah CH, Drell M, Larrieu J (1995), Two approaches to the diagnosis of post-traumatic stress disorder in infancy and early childhood. *J Am Acad Child Adolesc Psychiatry* 34:191-200
- Scheeringa M, Peebles C, Cook C, Zeanah CH (2001), Towards establishing the procedural, criterion, and discriminant validity of PTSD in early childhood. *J Am Acad Child Adolesc Psychiatry* 40:52-60
- Scheeringa M, Zeanah CH, Myers L, Putnam F (2003), New findings on alternative criteria for PTSD in preschool children. *J Am Acad Child Adolesc Psychiatry* 42:561-570
- Smyke AT, Dumitrescu A, Zeanah, CH (2002), Disturbances of attachment in young children: I. The continuum of caretaking casualty. *J Am Acad Child Adolesc Psychiatry* 41:972-982
- Solomon J, George C (1999), *Attachment Disorganization*. New York: Guilford
- Spitz RA (1950), Psychiatric therapy in infancy. *Am J Orthopsychiatry* 20:623-633
- Sroufe LA (1988), The role of infant-caregiver attachment in development. In: *Clinical Implications of Attachment*, Belsky J, Nezworski T, eds. Hillsdale, NJ: Erlbaum, pp 18-38
- Steele M, Steele H, Fonagy P (1996), Associations among attachment classifications in mothers, fathers and infants: evidence for a relationship specific perspective. *Child Dev* 67:541-555
- Tizard B, Rees J (1975), The effect of early institutional rearing on the behavior problems and affectional relationships of four-year-old children. *J Child Psychol Psychiatry* 16:61-73
- van IJzendoorn M, Sagi A (1999), Cross-cultural patterns of attachment: universal and contextual dimensions. In: *J Handbook of Attachment*, Cassidy J, Shaver P, eds. New York: Guilford, pp 713-734
- van IJzendoorn MH, Schuengel C, Bakermans-Kranenberg MJ (1999), Disorganized attachment in early childhood: meta-analysis of precursors, concomitants and sequelae. *Dev Psychopathol* 11:225-249
- Webster-Stratton C (1998), Preventing conduct problems in Head Start children: strengthening parenting competencies. *J Consult Clin Psychol* 66:715-730
- Webster-Stratton C, Hammond M (1997), Treating children with early-onset conduct problems: a comparison of child and parent training interventions. *J Consult Clin Psychol* 65:93-109
- Weinfield NS, Sroufe LA, Egeland B, Carlson EA (1999), The nature of individual differences in infant-caregiver attachment. In: *Handbook of Attachment: Theory, Research, and Clinical Applications*, Cassidy J, Shaver PR, eds. New York: Guilford, pp 68-88
- Wolkind SN (1974), The components of "affectionless psychopathology" in institutionalized children. *J Child Psychol Psychiatry* 15:215-220
- World Health Organization (1992), *The ICD-10 Classification of Mental and Behavioral Disorders: Clinical Descriptions and Diagnostic Guidelines*. Geneva: World Health Organization
- Zeanah CH (1996), Beyond insecurity: a reconceptualization of attachment disorders of infancy. *J Consult Clin Psychol* 64:42-52
- Zeanah CH (2000), Disturbances of attachment in young children adopted from institutions. *J Dev Behav Pediatr* 21:230-236
- Zeanah CH, Boris NW (2000), Disturbances and disorders of attachment in early childhood. In: *Handbook of Infant Mental Health*, 2nd ed., Zeanah CH, ed. New York: Guilford, pp 353-368
- Zeanah CH, Boris NW, Bakshi S, Lieberman A (2000), Disorders of attachment. In: *WAIMH Handbook of Infant Mental Health*, Osofsky J, Fitzgerald H, eds. New York: Wiley
- Zeanah CH, Emde RN (1994), Attachment disorders in infancy. In: *Child and Adolescent Psychiatry: Modern Approaches*, Rutter M, Hersov L, Taylor E, eds. Oxford: Blackwell, pp 490-504
- Zeanah CH, Mammen O, Lieberman A (1993), Disorders of attachment. In: *Handbook of Infant Mental Health*, Zeanah CH, ed. New York: Guilford, pp 332-349
- Zeanah CH, Scheeringa MS, Boris NW, Heller SS, Smyke AT, Trapani J (2004), Reactive attachment disorder in maltreated toddlers. *Child Abuse Negl* 28:877-888
- Zeanah CH, Smyke AT, Dumitrescu A (2002), Disturbances of attachment in young children: II. Indiscriminate behavior and institutional care. *J Am Acad Child Adolesc Psychiatry* 41:983-989
- Zeanah CH, Smyke, AT, Koga S and Carlson E (2003), Attachment in institutionalized and non-institutionalized Romanian children. Paper presented to the biennial meeting of the Society for Research in Child Development, Tampa, FL, April
- Zeanah CH, Smyke, AT, Koga S, Carlson E and the BEIP Core Group (in press). Attachment in institutionalized and non-institutionalized Romanian children. *Child Dev*
- Zero to Three/National Center for Clinical Infant Programs (1994), *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood*. Arlington, VA: Zero to Three/National Center for Clinical Infant Programs
- Zero to Three/National Center for Infants, Toddlers, and Families (in press), *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood, Revised*. Arlington, VA: Zero to Three/National Center for Infants, Toddlers, and Families