

## Review Article

# Clarifying “Disorder” in Attachment: An Overview

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- RAD
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## Abstract

In the past decade, attachment theory has undergone an intense expansion of both its original scientific foundations as well as its applications to clinical work. Bowlby's original description occurred during a period of behaviorism and then an emphasis on secure base behaviors gave way to dominance of cognitive perspectives. The article then describes another model that draws from both these theories and integrates a psychopathological component of attachment using a developmental and information processing perspective. The discussion leads to the role of trauma and the inherent omission from the Diagnostic and Statistical Manual of Mental Disorders (DSM-V, 2013) criteria for reactive attachment disorder (RAD) even though empirical work has documented the significant and negative impact this has on the development of RAD. The shift moves from the pathology within the individual child to the caregiver's inability to mentalize or provide a safe environment; the latter constitutes as a type of 'trauma' and has been shown to have neurological effects responsible for secure attachment in the child.

## ABBREVIATIONS

DSM: Diagnostic and Statistical Manual of Mental Disorders;  
RAD: Reactive Attachment Disorder

## INTRODUCTION

According to the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-V), the core feature of reactive attachment disorder (RAD) is severely inappropriate social relating that begins in children before they are five years old [1]. It is a more extreme psychiatric diagnosis for a subgroup of children with the most significant and detrimental insecure attachments [2]. Although the concept of attachment disorders has been described in the clinical literature for over 50 years [3], RAD is considered by some, a relatively new diagnosis [4,5]. As such, it has been one of the least researched [5,6] and most poorly understood disorders in the Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition (DSM-IV), [7] with little systematically gathered epidemiological information [8]. Some mental health professionals assert that the etiology is largely unknown [4] but the consensus seems to point towards some level of disruption between a caregiver and a child [9]. Newman and Mares [3] wrote that there is no accepted definition of the term 'attachment disorder' but that a better understanding might require a tighter definition of RAD [8]. This is not without problems as there is symptom overlap and when it comes to diagnosis, there can be a number of false positives and false negatives (p.77). Some argue that the DSM-IV [7] criteria may not be reliable [10] and that the DSM-V [1] lacks specific taxonomies

[11]. Other debates have focused on the relations between attachment classifications and clinical disorders of attachment disorganization. Research has been limited largely due to a lack of universally accepted diagnostic protocol [3] thereby the nature of maladaptive attachment and its link to psychopathology remains uncertain [12]. Given that these features of attachment disorders seem somewhat unresolved, it is not surprising that the areas of assessment and intervention hold the greatest amount of uncertainty and controversy [13]. Consequently, the absence of an appropriate diagnosis may therefore act as a barrier to effective treatment [11] especially since children with RAD often have comorbid conditions [3]. An accurate diagnosis is requisite to ensure that children with multiple difficulties receive appropriate, safe, and evidence based interventions [14,5] that are also feasible and realistic in terms of the global picture; in other words, effective interventions target families and children's mental health issues [4].

In brief, the literature on attachment disorders is messy and somewhat unclear. O'Connor and Zeanah [13] describe the area as somewhat of a paradox because evidence shows that attachment disorders warrant clinical attention and there are known factors that contribute to the disturbances, associated conditions, and the longitudinal course. However, there is still no consensus or protocol for assessing the disorder and related behaviors [13]. Zilberstein [5] underlined that, "RAD has been written about by researchers and clinicians grounded in Bowlby's [15] attachment theory, by those who call themselves holding therapists, and by those who study severe early deprivation in adopted children. The

lack of clarity is exacerbated by the fact that each of these groups presumes different etiologies, presentations, and treatments of the disorders" (p.55) even though there seems to be some overlap in terms of what is meant by attachment. Therefore, the purpose of this paper is to not add to the confusion but to tease apart and simplify some of these controversies and shed light on what is now known in terms of defining attachment, understanding the etiology, the implications for treatment and more specifically, RAD. Is it possible to consider a unified definition of RAD and where it may (or may not) fit in with attachment theory so that it can be commonly understood as an "attachment disorder"? In other words, the literature seems divided and what is the usefulness of two separate entities that are seemingly related? The DSM-V [1] is a different ball of political wax but in terms of diagnosis and treatment it seems intuitive to modify the criteria so that it can be used to help focus on the child and subsequent family needs. Otherwise, the literature at this point will continue to remain divided. The paper will begin by summarizing some of the literature on various perspectives of attachment theory (a detailed discussion is beyond the scope of this paper), on related controversies throughout the field on attachment disorders which will in turn, lead to a discussion about treatment implications.

## Overview of attachment

O'Connor and Zeanah [13] summarized various terms throughout the history of the attachment literature used to refer to a child's disturbed manner of social behaviors and the ways in which they approached and interacted with strangers. For instance superficially affectionate [16], indiscriminate exhibition [17], indiscriminately friendly [18,19], affectionless psychopathy [20] or an excessive need for adult attention [21] described children who experienced institutional care and exhibited behaviors consistent with the DSM-IV's [7] disinherited form of attachment disorder [13]. Furthermore, it was shown that these symptoms remained stable throughout their childhood and adolescence. Since then, the literature seems to have been divided into different camps depending on theoretical or clinical perspectives.

To the layperson or perhaps someone new to the field of developmental psychology, the concept of attachment seems to be most commonly associated with John Bowlby's [15] theory of attachment and later Mary Ainsworth's work with children and the Strange Situation Procedure (SSP) [22-24]. Although attachment theory per se is currently not used as a basis for diagnosis in the DSM (as it strives to be theoretical [25], it does constitute the key theoretical foundation for research and clinical work on attachment problems and no paper is complete without mention of these tenets as they remain critical in understanding the components of attachment disorders [5].

John Bowlby's first formal statement of attachment theory was built on concepts from etiology and developmental psychology. He presented three papers to the British Psychoanalytic Society in London: "The nature of the child's tie to his mother" [26-27] and "Grief and mourning in infancy and early childhood" [28]. Bowlby [29] showed the critical importance of stable or secure attachment in humans and primates whereby attachment is based on the responsiveness and availability of the caregiver. Early attachments form through verbal and nonverbal

communications (voice tone, touch, gestures, and vocalizations [30] with a sensitive caregiver who is attuned to the infant's state and communicates emotional understanding [31]. These interactions form affective relationships and offer infants and children protection from threat, which in turn, gives them comfort and nurturance. Secure attachment also teaches social interaction, emotional development such as regulating feelings [15,32], physiological development, and overall psychological well-being [33] such as stress management, regulating behaviors, integrating experiences, learning social skills, and school performance [34]. Secure attachments therefore form the foundation for a healthy development that allows children to explore and return to a secure base when feeling overwhelmed or threatened [15]. In contrast, insecure attachment occurs with disruptions of affective and secure bonds and negative experiences such as loss, separation, misattunement, violence, abuse or neglect. Children can develop psychological difficulties such as anxiety, depression, anger or emotional detachment; which in turn can lead to relational and social difficulties [35]. These experiences can be classified as traumatic and coupled with attachment insecurity can have a profound effect on a child's neurophysiological development and consequent restricted capacities such as somatic and emotional dysregulation, and identity formation [35-36].

Bowlby [29] also described the concept of internal or inner working models (IWM), where children unconsciously form mental representations of relationships based on their interactions with, and adaptation to, their primary caregiving environment. These cognitive/affective representations help them organize affect and social experiences which, in turn, shape current and future interpersonal relationships and behaviors [35,33]. Bowlby's view of early childhood attachments was instinctive in nature, suggesting a biological motive [9].

Mary Ainsworth and her colleagues also made significant contributions to attachment theory. They were the first to empirically study attachment styles in infants between 9-18 months old and their caregivers using the Strange Situation Procedure (SPP) [22-24]. The lab setting allowed them to observe the amount of exploration by the child throughout the situation, their reactions when the caregiver left, stranger anxiety (alone with the stranger and without the caregiver), and the reunion behavior (with the caregiver returned). Initially, three basic patterns were delineated that described the quality and affective characteristics of a child's attachments: organized (a strategy used to gain proximity of an attachment figure) or disorganized (children who have an attachment figure who is also a source of fear). Organized attachments refer to patterns that are classified according to whether the child feels secure (safe) or insecure/anxious regarding the availability or responsiveness of the attachment figure. A child may feel insecure although in reality they are safe and vice versa; hence, feeling states. Insecure organized attachments are either avoidant or resistant/ambivalent [22,24]. When some infants did not fit into the three patterns, a fourth category of attachment was developed: disorganized/disoriented insecure attachment [37-38].

When dealing with the stress of separation, disorganized infants lacked a coherent, organized strategy. Their behaviors

indicated not only a lack of organization but also orientation (dis-orientation). This was further classified along a continuum from no signs of disorientation or disorganization to, definite qualification for disorganized attachment – infant behaviors can be strong, frequent or extreme [37]. Main and Hesse [38] also showed that disorganized attachment behaviors in infancy developed into controlling behaviors in later childhood. They named two more groups to the Disorganized group: controlling punitive (child tries to humiliate or reject the caregiver) and controlling-caregiving (child shows caregiving suggestive of role reversal) [38]. Of all the types of attachments, disorganized children tend to be at the highest risk for later behavioral and emotional difficulties [5].

An alternative classification of attachment behaviors, the Dynamic Maturational model of attachment (DMM), was developed by Crittenden [39] and draws from Bowlby [29,15] and Ainsworth's work [22,24]. This model (Figure 1) integrates an attachment based approach across the lifespan and situates problems within a context of family-attachment relationships. The theory is about a) protecting the self and one's progeny from danger, and b) finding a reproductive partner [39]. As a developmental theory, the model includes "interactive effects of genetic inheritance, maturational processes, and person-specific experience to produce individual differences in strategies for keeping oneself safe", p. 105 [40]. These strategies (patterns of attachment) describe interpersonal behaviors but also a functional system for diagnosing psychopathology [41]. This model also places more emphasis on the effect of maturation in creating the possibility for change in developmental pathways and less on the cumulative effects of early conditions that can limit human potential [42]. The DMM also purports to be a theory of psychopathology and draws on Bowlby's [15] notions of exposure to danger that effects psychology and behavioral functioning [39].

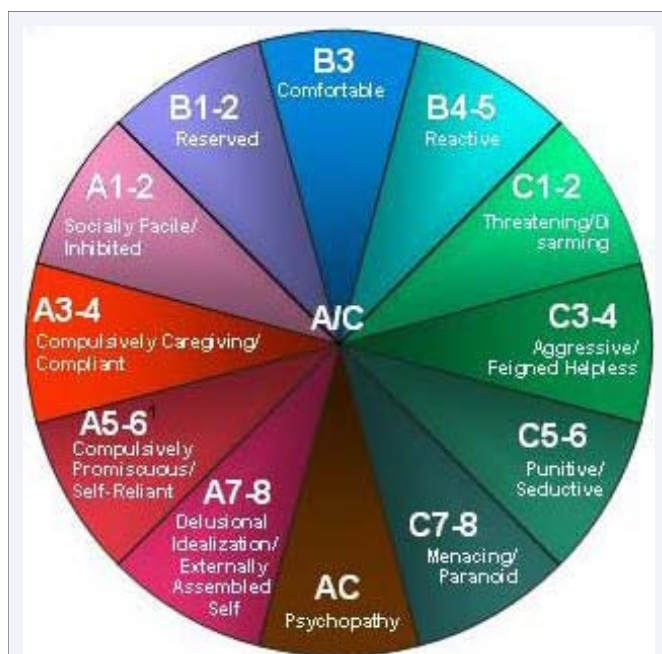


Figure 1 The Dynamic-Maturational Model of Attachment [43].

The contribution of this model in understanding psychopathology is that 1) it differentiates many atypical strategies as opposed to considering most psychiatric patients as disorganized and 2) it provides a theoretical model of how strategies develop in terms of maturing abilities to process information (information processing) and 3) it specifies the self-protective function of atypical strategies [43]. Five ideas underlie the DMM: patterns of attachment as a) self-protective strategies, b) that are learned in interaction with protective or attachment figures, c) symptoms that are functional aspects of dyadic strategy, e.g. acting out or consequent to a strategy or anxious behaviors, d) strategies that will change when individuals perceive that they do not fit the context, have alternative responses, and e) both believe and feel it is safe to behave in alternative ways. There are two patterns of attachment: Type A (strategies are organized around experienced outcomes that are expected to re-occur); awareness of negative feelings are minimized and, Type C (strategies are motivated by somatic feelings tied to intensity of stimulation and processed through limbic structures in the brain. Feelings are used as a guide for behavior and tend to be negative. Type B integrates cognitions and affect and consists of open, direct, and reciprocal communication of expectations and feelings. This strategy is described as one of psychological balance and is least vulnerable to psychopathology (synonymous with Bowlby's notion of secure attachment). Balance enables individuals to be safe and feel comfortable in diverse situations [43].

The DMM of attachment model includes compulsive Type A strategies and obsessive Type C strategies [39,43]. The higher numeral strategies reflect transformations of information and organizations of information that infants cannot handle; distorted affect and cognition occur mid-model (Type A 3-4: compulsively caregiving/compliant, Type C 3-4: aggressive/feigned helpless) and false affect and cognition are at the bottom of the model (Type AC: psychopathy). The patterns increase with maturation and psychopathological problems become possible when someone is in their early twenties [43]. The Dynamic-Maturational model of attachment [39]. The B strategies are balanced with regard to cognition and affect. There are various combinations of A and C strategies of which psychopathy are the most distorted, dangerous, and endangered [43]. The advantage of this model is that the most serious disorders of adolescence and adulthood, personality disorders, psychoses can be seen as cumulative effects of a series of developmental insults and consequent transformations of information [43]. In sum, the DMM of attachment theory focuses on protection and reproduction as central organizing functions and on the array of ways that these may be manifested. Representation is seen as an intra-personal process derived from the interpersonal context including attachment figures. Behavioral strategies are interpersonal and do not describe a person's characteristic but rather their actions. Both presentation and strategic action are due to the interactive outcome of maturational processes, individual genetic differences, and unique environmental contexts. Thus, the DMM is an information processing model with implications for treatment. Crittenden [43] contends that it contributes to the understanding of psychopathology as it includes a model of functional formations and development based hypotheses

regarding the relation of childhood experiences related to later psychopathology [43]. Empirical support from some infant studies suggests that the DMM has validity for maltreatment and behavioral or psychiatric disorders [44-45]. There is less empirical support for this model with adolescents and adults but further exploration of the relation between the DSM or International Classification of Diseases (ICD) diagnoses and DMM classifications is warranted [43]. Does the DMM model commence to bridge the gap between theory and clinical psychopathology and does it have the potential to explain how RAD falls on the continuum of attachment disorders?

According to Zeanah, attachment theory is a theory of development and not of pathology because it does not clearly demarcate between normal variations of attachment and a disorder [46]. Sroufe [47] states that psychopathology is often multi-determined and is the result of a confluence of factors (including temperament, medical conditions, environmental factors and relationships as well as trauma) [5]. Attachment, therefore, could be just one component in the global picture. When psychopathology is present, it is better predicted by multiple risk factors combined than just by disorganized attachment alone [48]. Although, Crittenden's DMM [43] seems to have started to fill in this gap, there is still a lack of understanding between the development of relationships or of the ways in which distortions in relationships play a role in the child's psychopathology [12].

To delineate which problems in a given child derive from poor attachments or from other factors is difficult because the process of development is both continuous and evolving [47]. Zilberstein [5] proposes three axes to examine attachment that do not seem to be inherently included in the DMM. These axes are either categorical or continuously distributed: attachment security, attachment intensity, and additional clinical signs or patterns. Although attachment theory makes clear that early relationships are important to development it does not extrapolate directly to understanding attachment disorders. Attachments vary across secure, insecure, and disorganized presentations but in terms of RAD, the variations in attachment or severity of attachment difficulties is not recognized as part of a RAD diagnosis. In sum, the inventories of RAD symptoms in the DSM are not specifically explained by components of the DMM model [43].

Similarly, RAD symptoms often extend beyond what is found in the DSM [4] and none of the types of attachments described in attachment theory directly correspond with attachment disorders in the DSM-V [1,5]. Some case studies of children with RAD have cited the prevalence of disorganized (Type D) attachment behaviors [49-51] and insecure patterns [52]. Given that relationship difficulties are extremely common among children in long term or foster care, very few present with discrete (or pure) forms of social or interpersonal relationship difficulties. For example, an epidemiological study of 347 children in long term foster care, while 35% of children had clinical difficulties that could be construed as 'discrete' mental disorders or comorbidity, another 20% displayed complex attachment and trauma related symptoms that are not adequately conceptualized within the DSM or the International Classification of Diseases (ICD) classifications [12]. As such, some argue that many children in care present with a complex array of attachment related difficulties that are more

correctly viewed as profiles of attachment disorders behaviors than as a discrete form of attachment disorder [12].

The DSM also focuses on indiscriminate and inhibited social relationships, placing the criteria for diagnosis on a child's problematic social behavior and not on attachment per se [46]. The DSM focuses on individual pathology but it contrasts with the conception of attachment fostered by attachment theory: "Attachment involves the mutual and trusting relationship of a child with a primary caretaker", p.56 [5] but this is not outlined in the DSM. The dynamic and reciprocal nature of the relationship is important as a dysfunctional one could reflect a lack of relational skills and availability of the caregiver. For instance, pathogenic parenting, such as abuse and trauma, is associated with infant disorganization [53] and not solely the child's internalized schema of attachment. This latter point has two main and important implications to consider: one for treatment and the other for a better understanding of the etiology of the disorder.

A psycho-dynamically informed approach addresses the latter point and looks at the role of trauma and how it affects the development of attachment and the disruption of brain structures, neuro-chemicals, and connectivity. Neurobiological effects of childhood neglect equal and even surpass the impact of abuse and related trauma [9]. Early emotional and attachment experiences are affected by pathogenic care giving, the absence of caregivers or the disruption of an early care giving environment; these types of neglect affect the ability of the hypothalamic-pituitary-adrenal axis to regulate the body and brain's response to stress [9]. The right hemisphere and its connected structures are dominant during early attachment experiences and interactions, such as facial mirroring and mutual gaze attunement, between the infant and caregiver [36,54]. Without appropriate dyadic attachment experiences during infancy, children grow into adulthood lacking self-soothing abilities, self-organization, and the ability to engage in healthy relationships [55].

RAD in the DSM-V [1] is understood to be caused by "a pattern of extremes of insufficient care" as evidenced by at least one of the following conditions: 1. Social neglect or deprivation in the form of persistent lack of having basic emotional needs for comfort, stimulation, and affection met by care giving adults. 2. Repeated changes of primary caregivers that limit opportunities to form stable attachments, e.g. frequent changes in foster care. 3. Rearing in unusual settings that severely limit opportunities to form selective attachments, e.g. institutions with high child-to-caregiver ratios" [1].

As seen earlier in this paper, Bowlby [28] suggested that the biological motive for attachment was instinctive. Early, secure attachment experiences form the foundation of a child's healthy object-relationship; this provides the dyadic and reciprocal experiences that shape infant inter-subjectivity [9] and the infant's ability to become resilient: the capacity to withstand and cope with adversity. The infant also learns to self-regulate (delay gratification and self-object relations) provided by the mother in a secure environment. Research on infants at one month old, showed seeking out interactions with others, they also listened and watched those who directed expressions to them [56]. The developing brain and structures, neurotransmitters, neural pathways, affective and cognitive systems help understand the

development of relationships [9]. The amygdala, hypothalamus, limbic system, septal nuclei, the brain stem, and the structures and connections in the coordination of motor and expressive activity are implicated in the meaning making of relationships with others [57,58]. This illustrates the link between biology, genetics, the environment, and behavior [9] and has implications for secure attachment that protects against the psychopathological care giving characteristic of RAD [31].

Psychopathological care giving can be generally defined as a trauma as it can negatively impact the capacity to develop and maintain relationships [35]. Given that the DSM-V outlines criteria that describe trauma and research shows the association between trauma inducing experiences and psychological distress, including post-traumatic stress disorder (PTSD) [59] and its impact on neurological development, early trauma and its secondary difficulties in adulthood, e.g. substance use, anxiety, shame [60] one is left wondering why the DSM-V [1] omits the role of trauma, or developmental trauma, from the taxonomy of RAD [11]. Rahim discusses the absence of developmental trauma disorder from the DSM-V as it raises implications about how trauma and attachment can be conceptualized [11]. Although RAD is included in the updated DSM, it only describes children who, due to emotional neglect or deprivation, do not seek comfort when distressed and who have a lack of positive affect. The diagnostic criteria do not include the effects of domestic violence, the physiological manifestations of emotional disturbance or functional impairment. The taxonomy "has not adequately taken into consideration the scientific literature and that child who experiences multiple chronic traumas especially at the hands of caregivers, will fall through the diagnostic net" [11]. This has implications from an intervention perspective as the priority remains in ensuring the safety of the child and if they are not 'anchored' in safe, stable adult relationships they cannot focus on therapeutic tasks [11].

## SUMMARY

In summary, this paper has shown how, in the past decade, attachment theory has undergone an intense expansion of both its original scientific foundations as well as its applications to clinical work, (albeit with some limitations if we were to consider the DSM-V criteria of RAD). Bowlby's original description occurred during a period of behaviorism and then an emphasis on the Strange Situation Procedure and secure base behaviors gave way to dominance of cognitive perspectives. The DMM draws from both these theories and integrates a psychopathological component of attachment using a developmental and information processing perspective. The discussion then led to the role of trauma and the inherent omission from the DSM criteria for RAD even though empirical work has documented the significant and negative impact this has on the development of RAD. The shift moves from the pathology within the individual child to the caregiver's inability to mentalize or provide a safe environment; the latter constitutes as a type of trauma and has been shown to have neurological effects responsible for secure attachment in the child.

The discussion continued with Schore and Shore [32] who stated that, "as a result of interdisciplinary developmental and neurobiological research over the last 15 years Bowl

by's core ideas have been expanded into a more complex and clinically relevant model...at this point in time, any theory of development and its corresponding theory of therapy must include these psychobiological findings regarding precisely how early emotional transactions with the primary object impact the development of psychic structure, that is, how affective attachment communications facilitate the maturation of brain systems involved in affect and self-regulation. The rich intricacy of an integrative interdisciplinary theory now encompasses all the essential elements that allow us to comprehend and treat disorders of self and affect regulation more effectively" [32]. Therefore, these authors concluded that the concept of regulation theory is an amalgam of Bowlby's attachment theory, updated internal object relations theories, self- psychology, and contemporary relational theory; a developmental approach informed by both neuroscience and infant research. Attachment outcomes are thus the product of the interactions of nature and nurture, the strengths and weaknesses of the individual's genetically encoded biological predispositions (temperament) and the early dyadic relationships with caregivers embedded within a particular social environment and culture.

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