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**DEVELOPMENTAL TRAUMA DISORDER:**  
Towards a rational diagnosis for children  
with complex trauma histories.

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## **Developmental trauma disorder:**

Childhood trauma, including abuse and neglect, is probably our nation's single most important public health challenge, a challenge that has the potential to be largely resolved by appropriate prevention and intervention. Each year over 3,000,000 children are reported to the authorities for abuse and/or neglect in the United States of which about one million are substantiated.<sup>1</sup> Many thousands more undergo traumatic medical and surgical procedures, and are victims of accidents and of community violence (see Spinazzola et al, this issue). However, most trauma begins at home: the vast majority of people (about 80 %) responsible for child maltreatment are children's own parents.

Inquiry into developmental milestones and family medical history is routine in medical and psychiatric examinations. In contrast, social taboos prevent obtaining information about childhood trauma, abuse, neglect and other exposures to violence. Research has shown that traumatic childhood experiences are not only extremely common; they also have a profound impact on many different areas of functioning. For example, children exposed to alcoholic parents or domestic violence rarely have secure childhoods; their symptomatology tends to be pervasive and multifaceted, and is likely to include depression, various medical illnesses, as well as a variety of impulsive and self-destructive behaviors. Approaching each of these problems piecemeal, rather than as expressions of a vast system of internal disorganization runs the risk of losing sight of the forest in favor of one tree.

The traumatic stress field has adopted the term "Complex Trauma" to describe the experience of multiple and/or chronic and prolonged, developmentally adverse traumatic events, most often of an interpersonal nature (e.g., sexual or physical abuse, war, community violence) and early-life onset. These exposures often occur within the child's caregiving system and include physical, emotional, and educational neglect and child maltreatment beginning in early childhood (see Cook et al, this issue, Spinazzola et al this issue).

In the Adverse Childhood Experiences (ACE) study by Kaiser Permanente and the Center for Disease Control,<sup>2</sup> 17,337 adult HMO members responded to a questionnaire about adverse childhood experiences, including childhood abuse, neglect, and family dysfunction. 11.0% reported having been emotionally abused as a child, 30.1% reported physical abuse, 19.9% sexual abuse; 23.5% reported being exposed to family alcohol abuse, 18.8% to mental illness, 12.5% witnessed their mothers being battered and 4.9% reported family drug abuse.

The ACE study showed that adverse childhood experiences are vastly more common than recognized or acknowledged and that they have a powerful relation to adult health a half-century later. The study unequivocally confirmed earlier investigations that found a highly significant relationship between adverse childhood experiences and depression, suicide attempts, alcoholism, drug abuse, sexual promiscuity, domestic violence, cigarette smoking, obesity, physical inactivity, and sexually transmitted diseases. In addition, the more adverse childhood experiences reported, the more likely a person was to develop heart disease, cancer, stroke, diabetes, skeletal fractures, and liver disease.



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Isolated traumatic incidents tend to produce discrete conditioned behavioral and biological responses to reminders of the trauma, such as are captured in the PTSD diagnosis. In contrast, chronic maltreatment or inevitable repeated traumatization, such as occurs in children who are exposed to repeated medical or surgical procedures, have a pervasive effects on the development of mind and brain. Chronic trauma interferes with neurobiological development (see article by Ford, this issue) and the capacity to integrate sensory, emotional and cognitive information into a cohesive whole. Developmental trauma sets the stage for unfocused responses to subsequent stress<sup>3</sup> leading to dramatic increases in the use of medical, correctional, social and mental health services.<sup>4</sup> People with childhood histories of trauma, abuse and neglect make up almost our entire criminal justice population:<sup>5</sup> physical abuse and neglect are associated with a very high rates of arrest for violent offenses. In one prospective study of victims of abuse and neglect, almost half were arrested for non-traffic related offenses by age 32.<sup>6</sup> Seventy-five percent of perpetrators of child sexual abuse report to have themselves been sexually abused during childhood.<sup>7</sup> These data suggest that most interpersonal trauma on children is perpetuated by victims who grow up to become perpetrators and/or repeat victims of violence. This tendency to repeat represents an integral aspect of the cycle of violence in our society.

### Trauma, caregivers and affect tolerance.

Children learn to regulate their behavior by anticipating their caregivers' responses to them.<sup>8</sup> This interaction allows them to construct what Bowlby called "internal working models."<sup>9</sup> A child's internal working models are defined by the internalization of the affective and cognitive characteristics of their primary relationships. Because early experiences occur in the context of a developing brain, neural development and social interaction are inextricably intertwined. As Don Tucker (p.199) has said: "For the human brain, the most important information for successful development is conveyed by the social rather than the physical environment. The baby brain must begin participating effectively in the process of social information transmission that offers entry into the culture."<sup>10</sup>

Early patterns of attachment inform the quality of information processing throughout life.<sup>11</sup> Secure infants learn to trust both what they feel and how they understand the world. This allows them to rely both on their emotions and thoughts to react to any given situation. Their experience of feeling understood provides them with the confidence that they are capable of making good things happen, and that if they do not know how to deal with difficult situations they can find people who can help them find a solution. Secure children learn a complex vocabulary to describe their emotions (such as love, hate, pleasure, disgust and anger). This allows them to communicate how they feel and to formulate efficient response strategies. They spend more time describing physiological states such as hunger and thirst, as well as emotional states than maltreated children.<sup>12</sup>

Under most conditions parents are able to help their distressed children restore a sense of safety and control: the security of the attachment bond mitigates against trauma-induced terror. When trauma occurs in the presence of a supportive, if helpless, caregiver,



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the child's response is likely to mimic that of the parent—the more disorganized the parent, the more disorganized the child.<sup>13</sup> However, if the distress is overwhelming, or when the caregivers themselves are the source of the distress, children are unable to modulate their arousal. This causes a breakdown in their capacity to process, integrate and categorize what is happening: at the core of traumatic stress is a breakdown in the capacity to regulate internal states. If the distress does not let up, children dissociate: the relevant sensations, affects and cognitions cannot be associated (they are dissociated into sensory fragments<sup>14</sup>) and, as a result, these children cannot comprehend what is happening or devise and execute appropriate plans of action.

When caregivers are emotionally absent, inconsistent, frustrating, violent, intrusive, or neglectful, children are liable to become intolerably distressed and unlikely to develop a sense that the external environment is able to provide relief. Thus, children with insecure attachment patterns have trouble relying on others to help them, while unable to regulate their emotional states by themselves. As a result, they experience excessive anxiety, anger and longings to be taken care of. These feelings may become so extreme as to precipitate dissociative states or self-defeating aggression. Spaced out and hyperaroused children learn to ignore either what they feel (their emotions), or what they perceive (their cognitions).

When children are unable to achieve a sense of control and stability they become helpless. If they are unable to grasp what is going on and unable do anything about it to change it, they go immediately from (fearful) stimulus to (fight/flight/freeze) response without being able to learn from the experience. Subsequently, when exposed to reminders of a trauma (sensations, physiological states, images, sounds, situations) they tend to behave as if they were traumatized all over again—as a catastrophe.<sup>15</sup> Many problems of traumatized children can be understood as efforts to minimize objective threat and to regulate their emotional distress<sup>16</sup>. Unless caregivers understand the nature of such re-enactments they are liable to label the child as “oppositional,” “rebellious,” “unmotivated,” and “antisocial.”

#### The dynamics of childhood trauma.

Young children, still “embedded” in the here-and-now and lacking the capacity to see themselves in the perspective of the larger context, have no choice but to see themselves as the center of the universe: everything that happens is directly related to their own sensations. Development consists of learning to master and “own” one's experiences and to learn to experience the present as part of one's personal experience over time.<sup>17</sup> Piaget called this “decentration:” moving from being one's reflexes, movements and sensations to having them.

Predictability and continuity are critical in order to develop a good sense of causality and for learning to categorize experience. A child needs to develop categories in order to be able to place any particular experience in a larger context. Only when they can do this will they be able to evaluate what is currently going on and entertain a range of options with

which they can affect the outcome of events. Imagining being able to play an active role leads to problem-focused coping.<sup>15</sup>

If children are exposed to unmanageable stress, and if the caregiver does not take over the function of modulating the child's arousal, as occurs when children exposed to family dysfunction or violence, the child will be unable to organize and categorize its experiences in a coherent fashion. Unlike adults, children do not have the option to report, move away or otherwise protect themselves—they depend on their caregivers for their very survival. When trauma emanates from within the family, children experience a crisis of loyalty and organize their behavior to survive within their families. Being prevented from articulating what they observe and experience, traumatized children will organize their behavior around keeping the secret, deal with their helplessness with compliance or defiance, and accommodate in any way they can to entrapment in abusive or neglectful situations.<sup>18</sup> When professionals are unaware of children's need to adjust to traumatizing environments and expect that children should behave in accordance with adult standards of self-determination and autonomous, rational choices, these maladaptive behaviors tend to inspire revulsion and rejection. Ignorance of this fact is likely to lead to labeling and stigmatizing children for behaviors that are meant to insure survival.

Being left to their own devices leaves chronically traumatized children with deficits in emotional self-regulation. This results in problems with self-definition as reflected by 1) a lack of a continuous sense of self, 2) poorly modulated affect and impulse control, including aggression against self and others, and 3) uncertainty about the reliability and predictability of others, which is expressed as distrust, suspiciousness, and problems with intimacy, and which results in social isolation.<sup>19</sup> Chronically traumatized children tend to suffer from distinct alterations in states of consciousness, with amnesia, hypermnnesia, dissociation, depersonalization and derealization, flashbacks and nightmares of specific events, school problems, difficulties in attention regulation, with orientation in time and space and they suffer from sensorimotor developmental disorders. They often are literally are “out of touch” with their feelings, and often have no language to describe internal states.<sup>20</sup>

Lacking a sense of predictability interferes with the development of object constancy—a lack of inner representations of their own inner world or their surroundings. As a result they lack a good sense of cause and effect and of their own contributions to what happens to them. Without internal maps to guide them, they act, instead of plan, and show their wishes in their behaviors, rather than discussing what they want,<sup>15</sup> Unable to appreciate clearly who they, or others are, they have problems enlisting other people as allies on their behalf. Other people are sources of terror or pleasure, but rarely fellow human beings with their own sets of needs and desires. They have difficulty appreciating novelty; without a map to compare and contrast, anything new is potentially threatening. What is familiar tends to be experienced as safer, even if it is a predictable source of terror<sup>15</sup>.



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These children rarely spontaneously discuss their fears and traumas, and they have little insight into the relationship between what they do, what they feel and what has happened to them. They tend to communicate the nature of their traumatic past by repeating it in the form of interpersonal enactments, in their play and in their fantasy lives.

#### Childhood trauma and psychiatric illness.

Posttraumatic Stress Disorder (PTSD) is not the most common psychiatric diagnosis in children with histories of chronic trauma (see Cook et al, this issue). For example, in one study of 364 abused children<sup>21</sup> the most common diagnoses in order of frequency were separation anxiety disorder, oppositional defiant disorder, phobic disorders, PTSD, and ADHD. Numerous studies of traumatized children find problems with unmodulated aggression and impulse control,<sup>22, 23</sup> attentional and dissociative problems (e.g.,<sup>24</sup>), and difficulty negotiating relationships with caregivers, peers and, subsequently, intimate partners.<sup>25</sup>

Histories of childhood physical and sexual assaults are associated with a host of other psychiatric diagnoses in adolescence and adulthood: substance abuse, borderline and antisocial personality, as well as eating, dissociative, affective, somatoform, cardiovascular, metabolic, immunological, and sexual disorders.<sup>26</sup>

The results of the DSM IV Field Trial suggested that trauma has its most pervasive impact during the first decade of life and becomes more circumscribed, i.e., more like “pure” PTSD, with age.<sup>27</sup> The diagnosis PTSD is not developmentally sensitive and does not adequately describe the impact of exposure to childhood trauma on the developing child. Because multiply abused infants and children often experience developmental delays across a broad spectrum, including cognitive, language, motor, and socialization skills,<sup>28</sup> they tend to display very complex disturbances with a variety of different, often fluctuating, presentations.

However, because there currently is no other diagnostic entity that describes the pervasive impact of trauma on child development these children are given a range of “comorbid” diagnoses, as if they occurred independently from the PTSD symptoms, none of which do justice to the spectrum of problems of traumatized children, and none of which provide guidelines on what is needed for effective prevention and intervention. By relegating the full spectrum of trauma-related problems to seemingly unrelated “comorbid” conditions, fundamental trauma-related disturbances may be lost to scientific investigation, and clinicians may run the risk of applying treatment approaches that are not helpful.

#### Towards a diagnosis of Developmental Trauma Disorder.

The question of how to best organize the very complex emotional, behavioral and neurobiological sequelae of childhood trauma has vexed clinicians for several decades. Because the DSM IV has a diagnosis for adult onset trauma, PTSD, this label often is



applied to traumatized children, as well. However, the majority of traumatized children do not meet diagnostic criteria for PTSD<sup>29</sup> (see Cook et al, this issue), and PTSD cannot capture the multiplicity of exposures over critical developmental periods. Moreover, the PTSD diagnosis does not capture the developmental impact of childhood trauma: the complex disruptions of affect regulation, the disturbed attachment patterns, the rapid behavioral regressions and shifts in emotional states, the loss of autonomous strivings, the aggressive behavior against self and others, the failure to achieve developmental competencies; the loss of bodily regulation in the areas of sleep, food and self-care; the altered schemas of the world; the anticipatory behavior and traumatic expectations; the multiple somatic problems, from gastrointestinal distress to headaches; the apparent lack of awareness of danger and resulting self endangering behaviors; the self-hatred and self-blame and the chronic feelings of ineffectiveness.

Interestingly, many forms of interpersonal trauma, in particular psychological maltreatment, neglect, separation from caregivers, traumatic loss, and inappropriate sexual behavior, do not necessarily meet the *Diagnostic and Statistical Manual, Fourth Edition* (DSM-IV) “Criterion A” definition for a traumatic event, which requires, in part, an experience involving “actual or threatened death or serious injury, or a threat to the physical integrity of self or others” (p. 427). Children exposed to these common types of interpersonal adversity thus typically would not qualify for a PTSD diagnosis unless they also were exposed to experiences or events that qualify as “traumatic,” even if they have symptoms that would otherwise warrant a PTSD diagnosis. This finding has several implications for the diagnosis and treatment of traumatized children and adolescents. Non-Criterion A forms of childhood trauma exposure—such as psychological/emotional abuse and traumatic loss—have been demonstrated to be associated with PTSD symptoms and self-regulatory impairments in children<sup>30</sup> and into adulthood.<sup>31</sup> Thus, classification of traumatic events may need to be defined more broadly, and treatment may need to address directly the sequelae of these interpersonal adversities, given their prevalence and potentially severe negative effects on children’s development and emotional health.

The Complex Trauma taskforce of the National Child Traumatic Stress Network has been concerned about the need for a more precise diagnosis for children with complex histories. In an attempt to more clearly delineate what these children suffer from and to serve as a guide for rational therapeutics this taskforce has started to conceptualize a new diagnosis provisionally called: Developmental Trauma Disorder.<sup>1</sup> This proposed diagnosis is organized around the issue of triggered dysregulation in response to traumatic reminders, stimulus generalization, and the anticipatory organization of behavior to prevent the recurrence of the trauma impact.

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<sup>1</sup> The members of the NCTSN Developmental Trauma Disorders taskforce are: Marylene Cloitre, Julian Ford, Alicia Lieberman, Frank Putnam, Robert Pynoos, Glenn Saxe, Michael Scheeringa, Joseph Spinazzola and Bessel van der Kolk, with input from Michael DeBellis, Allan Steinberg and Martin Teicher.



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TABLE 1

### Developmental Trauma Disorder

#### A. Exposure

- Multiple or chronic exposure to one or more forms of developmentally adverse interpersonal trauma (eg, abandonment, betrayal, physical assaults, sexual assaults, threats to bodily integrity, coercive practices, emotional abuse, witnessing violence and death).
- Subjective experience (eg, rage, betrayal, fear, resignation, defeat, shame).

#### B. Triggered pattern of repeated dysregulation in response to trauma cues

Dysregulation (high or low) in presence of cues. Changes persist and do not return to baseline; not reduced in intensity by conscious awareness.

- Affective
- Somatic (eg, physiological, motoric, medical)
- Behavioral (eg, re-enactment, cutting)
- Cognitive (eg, thinking that it is happening again, confusion, dissociation, depersonalization).
- Relational (eg, clinging, oppositional, distrustful, compliant).
- Self-attribution (eg, self-hate, blame).

#### C. Persistently Altered Attributions and Expectancies

- Negative self-attribution.
- Distrust of protective caretaker.
- Loss of expectancy of protection by others.
- Loss of trust in social agencies to protect.
- Lack of recourse to social justice/retribution.
- Inevitability of future victimization.

#### D. Functional Impairment

- Educational.
- Familial.
- Peer.
- Legal.
- Vocational.

This provisional “Developmental Trauma Disorder” is predicated on the notion that multiple exposures to interpersonal trauma, such as abandonment, betrayal, physical or sexual assaults or witnessing domestic violence have consistent and predictable consequences that affect many areas of functioning. These experiences engender 1) *intense affects* such as rage, betrayal, fear, resignation, defeat and shame. and 2) *efforts to ward off the recurrence* of those emotions, including the avoidance of experiences that precipitate them or engaging in behaviors that convey a subjective sense of control in the face of potential threats. These children tend to *behaviorally reenact* their traumas either as perpetrators, in aggressive or sexual acting out against other children, or in frozen avoidance reactions. Their physiological dysregulation may lead to *multiple somatic problems*, such as headaches and stomachaches in response to fearful and helpless emotions.

Persistent sensitivity to reminders interferes with the development of emotion regulation and causes long-term *emotional dysregulation and precipitous behavior changes*. Their over- and underreactivity is manifested on multiple levels: emotional, physical, behavioral, cognitive and relational. They have fearful, enraged, or avoidant emotional reactions to minor stimuli that would have no significant impact on secure children. After



having become aroused these children have a great deal of *difficulty restoring homeostasis* and returning to baseline. Insight and understanding about the origins of their reactions seems to have little effect.

In addition to the conditioned physiological and emotional responses to reminders characteristic of PTSD complexly traumatized children *develop a view of the world that incorporates their betrayal and hurt*. They *anticipate and expect the trauma to recur* and respond with hyperactivity, aggression, defeat or freeze responses to minor stresses.

Their cognition is affected by reminders: they tend to become *confused, dissociated and disoriented* when faced with stressful stimuli. They easily *misinterpret events* in the direction of a return of trauma and helplessness which causes them to be constantly *on guard, frightened and over-reactive*. Finally, expectations of a return of the trauma permeate their relationships. This is expressed as *negative self-attributions, loss of trust in caretakers* and loss of the belief that somebody will look after them and making feel safe. They tend to lose the expectation that they will be protected and act accordingly. As a result, they *organize their relationships around the expectation or prevention of abandonment or victimization*. This is expressed as excessive clinging, compliance, oppositional defiance and distrustful behavior, and they may be preoccupied with retribution and revenge.

All of these problems are expressed in dysfunction in multiple areas of functioning: educational, familial, peer relationships, problems with the legal system, and problems in maintaining jobs.

**Treatment Implications** (see also Cook et al, this issue, and Blaustein et al, this issue).

In the treatment of traumatized children and adolescents there often is a painful dilemma of whether to keep them in the care of people or institutions who are sources of hurt and threat, or whether to play into abandonment and separation distress by taking the child away from familiar environments and people to whom they are intensely attached, but who are likely to cause further substantial damage.<sup>15</sup>

#### Establishing safety and competence.

Complexly traumatized children need to be helped to engage their attention in pursuits that 1) do not remind them of trauma-related triggers, and 2) that give them a sense of pleasure and mastery. Safety, predictability and “fun” is essential for the establishment of the capacity to observe what is going on, put it into a larger context and initiate physiological and motoric self-regulation. Before addressing anything else these children need to be helped how to react differently from their habitual fight/flight/freeze reactions.<sup>15</sup> Only after children develop the capacity to focus on pleasurable activities without becoming disorganized do they have a chance to develop the capacity to play with other children, engage in simple group activities and deal with more complex issues.



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### Dealing with traumatic reenactments.

After having been multiply traumatized the imprint of the trauma becomes lodged in many aspects of the child's make-up. This is manifested in multiple ways: e.g. as fearful reactions, aggressive and sexual acting out, avoidance and uncontrolled emotional reactions. Unless this tendency to repeat the trauma is recognized, the response of the environment is likely to replay of the original traumatizing, abusive, but familiar, relationships. Because these children are prone to experience anything novel, including rules and other protective interventions, as punishments, they tend to regard their teachers and therapists who try to establish safety, as perpetrators.<sup>15</sup>

### Attention to the body: integration and mastery.

Mastery is most of all a physical experience: the feeling of being in charge, calm and able to engage in focused efforts to accomplished the goals one sets for oneself. These children experience the trauma-related hyperarousal and numbing on a deeply somatic level. Their hyperarousal immediately apparent in their inability to relax and by their high degree of irritability. Children with "frozen" reactions need to be helped to reawaken their curiosity and to explore their surroundings. They avoid engagement in activities because any task may unexpectedly turn into a traumatic trigger. Neutral, "fun" tasks and physical games can provide them with knowledge of what it feels like to be relaxed and to feel a sense of physical mastery.

At the center of the therapeutic work with terrified children is helping them realize that they are repeating their early experiences and helping them find new ways of coping by developing new connections between their experiences, emotions and physical reactions. Unfortunately, all too often, medications take the place of helping children acquire the skills necessary to deal with and master their uncomfortable physical sensations. In order to "process" their traumatic experiences these children first need to develop a safe space where they can "look at" their traumas without repeating them and making them real once again.<sup>15</sup>

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