

Oppositional Defiant Disorder and Trauma

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The *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)* (APA, 2000) defines oppositional defiant disorder (ODD) as a pattern of negative, hostile, and deviant behavior lasting for 6 months during which four or more of the following symptoms are present: often loses temper, often argues with adults, often defies or refuses to comply with rules, deliberately annoys people, blames other for his/her own mistakes, easily annoyed, angry or resentful and spiteful or vindictive. The *DSM-IV-TR* (APA, 2000) indicates that the behavior causes significant impairment in social, academic or occupational functioning. ODD is not given as a diagnosis if symptomatology occurs exclusively during a psychotic or mood disorder and criterion must only be considered if the behavior occurs more frequently than is typically present in individuals of similar chronological age or developmental level.

Symptoms of ODD are more common in interactions with adults or peers that the individual knows well. For this reason, many of the symptoms indicated may not be observed during a clinical evaluation. However, reports of behavior by others most often will include persistent stubbornness, resistance to directions, and not willing to be flexible or compromise. Individuals diagnosed with ODD do not think of themselves as oppositional or defiant and typically justify their behavior as a response to unreasonable demands or circumstances brought on by others (APA, 2000). In the past, children with ODD-like behaviors were called disobedient or aggressive but with recent media exposure including school violence such as in Jonesboro, Arkansas and Littleton, Colorado as well as incidents not covered by the media, but occur on a daily basis in

schools across the country, ODD has become an acronym well-known to parents and professionals alike (Hall, Williams & Hall, 2000).

Rates of Oppositional Defiant Disorder from 2% to 25% have been reported among children in various studies (Hall, Williams, & Hall, 2000). ODD is more prevalent in males than in females before puberty. While symptoms are similar in males and females, males may have more confrontational behavior and more persistent symptoms than females. ODD is more common in families in which at least one parent has a history of a mood disorder, ODD, conduct disorder, attention deficit hyperactivity disorder, antisocial personality disorder or a substance-related disorder. ODD is also more common in families in which there is marital conflict (APA, 2000). Some pediatricians report that ODD-like symptoms and behaviors are just as common in their clinical practice as those consistent with ADHD and maladaptive aggression accounts for one of the most frequent referrals to child psychiatric clinics. (Ravenel, 2008; Robb, 2010).

There appears to be no single cause that overwhelmingly produces ODD, but rather ODD appears to involve the interaction of multiple factors. The etiology of ODD is proposed by some to have three components—biological, ineffective parenting strategies and stress (Snoek, Van Goozen et al, 2004; Hall, et al, 2000). The biological component, referenced by Hall et al, (2000) relates to children that are born with difficult temperaments. Difficult temperaments are often described as children that have short attention spans and explosive emotions (Hall et al, 2000), which often leads to

inconsistent, harsh or abusive parenting strategies. The biological component associated with ODD may also be associated with abnormal amounts of neurotransmitters in the brain, which causes the malfunction of cellular communication between the chemicals (Snoek et al, 2004). Snoek et al (2004) point out that one influential biological theory of behavior in antisocial individuals is that they have low arousal levels and therefore are more likely to engage in fights to obtain rewards while others argue that low arousal represents an aversive physiological state and that these individuals with low arousal are motivated to seek out stimulation in order to raise their arousal levels to an optimal or normal level (Snoek et al, 2004). “Children with ODD have a biologically driven disorder. They did not choose to be born with this disorder. If they could crawl out of their temperament and grow a new one, they would” (Hall, Williams, & Hall, 2000, p. 225). Van Goozen, Matthys, Cohen-Kettenis, Buitelar and Van Engeland (2000) found that ODD children had lower cortisol levels when exposed to frustration and provocation than healthy children. These results suggest that a pattern of low cortisol reactivity during stress could be a specific characteristic of aggressive children with ODD and is not related to the actual aggressive behavior.

Hall et al (2000) points out that “stress makes it more likely that parents will be coercive, neglectful, or abusive to their children” (p. 220). These harsh parenting strategies often result in children that have difficulty with attachment and reading social cues. External stress factors such as poverty and single parenting or internal factors like parental depression, substance abuse and antisocial or aggressive behavior can leave a child traumatized. Exposure to trauma can lead to post traumatic stress disorder.

It is becoming increasingly clear that trauma and ODD should be addressed simultaneously because of the similarities among the biology, stress and ineffective parenting strategy components that are present in both ODD and trauma. Additionally, many have investigated the impact of trauma on young children more broadly, and have found significantly higher levels of internalizing and externalizing symptoms among children who were exposed to psychological trauma and had also higher rates of ODD (Toddler, 2009). In 2009 van der Kolk and Pynoos proposed a new diagnosis for the *DSM V*, called Developmental Trauma Disorder (DTD) to reduce the complications related to no diagnosis and multiple diagnoses provided to children that have experienced a history of trauma, many times since birth. Van der Kolk and Pynoos (2009) point out that ODD overlaps with the DTD symptoms of temper loss, defiance, and being argumentative and easily annoyed. This is only one example of how trauma can present as another disorder, making it difficult for professionals to distinguish among them. There is currently no differential diagnosis for posttraumatic stress disorder.

Brain growth and development including the nervous system and endocrine system along with psychosocial development including personality formation, social conduct and the capacity to form relationships are adversely impacted by trauma. Children with a history of trauma experience have greater oppositional defiant behaviors than children without exposure to trauma (Henry, Sloane & Black-Pond, 2007). This is most likely the result of the negative physiological impact that trauma has on core regulatory systems, compromising a child's ability to regulate and process sensory inputs.

Changes in the hypothalamic-pituitary-adrenal axis (HPA axis), which is the body's critical stress response system, prevent modulation of the sensory dysregulation and essentially make a child incapable of self-regulation of their emotions and behavior (Carlson, 2010; Putnam, 2006). The experience of trauma increases a person's vulnerability to stressors, even mild stressors that healthy individuals are able to handle. For example, simple problem solving becomes very difficult which can cause anger and confusion in a child that simply, "does not know what to do" about a situation and may ultimately result in rage, aggression and other oppositional defiant-like disorders.

The central nervous system (CNS) brain structures that are affected by trauma include the neurotransmitters, that allow for different brain structures to communicate, the HPA axis, that allows individuals to respond to perceived threat, the amygdala that initiates fight/flight/freeze response, the hippocampus which is involved in new memory storage and learning, the orbitofrontal cortex which regulates emotion, social behavior and conscious decision making and the anterior cingulate, which is associated with conflict monitoring, resolution, and executive function (Henry, Sloane, Black-Pond, 2007). The impact on these CNS structures illustrates why attachment, affects regulation and information processing is compromised in traumatized children. Interestingly, many of the symptoms and reactions present in ODD are parallel to the symptoms and reactions in children post trauma.

Atypical EEG patterns of frontal brain activation have been found in children and adults with disruptive behavior disorders including ODD. Baving, Laucht and Schmidt (2000) analyzed 119 children diagnosed with ODD and in oppositional girls, the well-known pattern of having a lower left frontal than a right frontal activation emerged that has been found previously in emotionally disordered children. It can be interpreted that these children have greater right frontal than left frontal brain activation. Healthy girls show no frontal brain asymmetry. The atypical activation pattern in oppositional children is hypothesized to be a biological substrate of negative affective style (Braving, Laucht & Schmidt, 2000). As indicated earlier, children with externalizing behaviors have obvious difficulties regulating emotion and show negative affective style. A different function in regulating emotional experience is attributed to each of the two cerebral hemispheres; activation in the left frontal brain region is associated with the expression of positive emotions and a readiness to “approach the environment,” whereas activation in the right frontal brain region corresponds to negative emotions and withdrawal reactions (Baving, Laucht & Schmidt, 2000).

Caregivers with histories of childhood trauma also have difficulty regulating their own emotions, which may make it a challenge for them to respond appropriately to their child’s emotional state. Parents and caregivers may see their child’s behavior as a personal threat or provocation. “A traumatized child’s simultaneous need for and fear of closeness (disorganized attachment) also can trigger a parent’s own memories of loss, rejection, or abuse, and diminish parenting abilities (Cook et al, 2005, p. 396).”

Treating young children with ODD has been controversial since oppositional behavior can often represent a developmental transition period for some children. However, deviant and impairing levels of these behaviors can persist beyond the preschool years highlighting the need for early intervention (Knouse, 2007). Early intervention is essential because the diagnosis of ODD in early childhood is often an indication that a child will develop a lifelong pattern of antisocial behavior (Hall et al, 2000). However, the sooner children receive treatment; the more likely this pattern can be improved. Therefore, screening should be the first step in both prevention and early intervention of ODD.

Given that over 800,000 children are exposed to trauma every year from just abuse and neglect alone (NCANDS, 2007) and 20% of those children are observed to have dramatic changes in behavior, consistent with ODD following the traumatic event(s) it would be beneficial to develop guidelines to help pediatricians and early childhood professionals routinely screen for the presence of trauma-related symptoms and impairments even in very young children. This would help prevent behaviors from escalating to an ODD diagnosis in later years. Toddlers, for example, are at particularly high risk for adverse consequences following trauma exposure because of their immature cognitive and emotional function. Young children have rapidly developing brains that are vulnerable to long term structural and functional impairments as a result of exposure to psychological trauma (Perry, 2000; De Bellis, 2002). Young children with complex

trauma histories are at risk for failing to develop brain capacities necessary for modulating emotions in response to stress whereas non-traumatized children gradually learn to orient to their environments and regulate and manage the inputs (Cook, et al, 2005). Deficits in the ability of maltreated children to discriminate among and label affective states have been demonstrated as early as 30-months-old. Following the identification of an emotional state, a child must be able to express emotions safely and to modulate or regulate internal experience. Traumatized children often cannot self-regulate or self-soothe and therefore behaviors are often negative and include resistance to changes in routine, aggressive behavior and oppositional defiant disorder (Cook et al, 2005).

Under stress, traumatized children's analytical capacities are limited and behaviorally react with confusion, withdrawal and/or rage. So, instead of being able to make a gradual shift from right brain hemisphere dominance (feeling and sensory brain) to dominance of the left brain hemisphere (language, reasoning, problem solving) and ultimately an integration of neural communication between the right and left brain hemisphere, they react only from their "sensory" or right brain which often lacks "thought" or planning before something is said or an action is taken. This clearly illustrates how a traumatized child can present with ODD-like symptomatology.

We have learned that while in the arousal state or, not feeling safe at the sensory level, cognitive functioning and processing is altered. Short-term memory suffers, verbal

memory decreases and behavior is in response to trauma history (Steele, 2008). Children can be easily startled and become behaviorally reactive to perceived threats. Even though the danger may be over, the “sense” that it is not can lead to behavioral changes in addition to the alterations in cognitive processes and are often misinterpreted as resistance, stubbornness, over-reactiveness, impulsiveness, confrontation and the many other behaviors that are often associated with ODD. Children who do not feel safe find it difficult to learn and remember what has been said to them (Perry & Szalavitz, 2006). These same children while in an aroused state often begin to behave in ways that are problematic, it is not until a “sense of safety” is returned, Steele (2008) points out, are cognitive processes restored and behaviors returned to pre-trauma level.

Traditional approaches have limitations. Parent training is the most commonly used treatment for ODD. Unfortunately, of the 75% of children that benefit from this intervention, 40% report regression and several studies found that even when a child’s behavior improved at home, the child’s behavior in school did not improve (Hall et al, 2000). For example, children that benefit from behavior modification techniques are children that have the ability to understand consequences of past behaviors to change their future actions. These children occasionally “test” their parents and teachers. These are not ODD children. As mentioned early, children with ODD have unique temperaments; they are impulsive and not capable of understanding how or why reward and punishment should impact their behavior (Hall et al, 2000) because of their limited access to optimal cognitive function. If there is a history of trauma, this further compromises a child’s ability to focus, recall information and understand others.

There are alternative approaches to working with children who have ODD to prevent aggressive, disruptive, and noncompliant behavior from occurring that show promise. However, perhaps one of the most important pieces of intervention is to educate parents and teachers about the nature of children's behavior. Often, anger and aggression are associated with underlying feelings of fear, hurt, worry and frustration. Low self-esteem, fear of failure or feelings of isolation can also cause anger and potentially aggressive behaviors. The majority of parents and children believe that children have the ability to control their own behaviors, and they "just choose to misbehave" and very few understand the physical, cognitive, and emotional bases for the behaviors (Henry, Sloane, Black-Pond, 2007). In a recent study with over 1600 parents of children ages birth to three, conducted by Zero to Three (2010), found that parents consistently expected their children—even as young as 12-18 months old—should be able to self-regulate. Educators frequently use words like "defiant" and "lazy" to describe these children and try to use traditional management strategies that rely heavily on "consequences" to produce behavior change. These approaches produced very little success. Therefore, it is essential that intervention include strategies that understand that these children have difficulty with affect regulation, coping skills and problem solving. Interventions, therefore, must consider a child's limitations in remembering and following directions, their need for increased support in learning new skills and their vulnerability to stress. As Perry (2006) points out, "traumatized and stressed children often unconsciously respond with survival behaviors that include defiant behaviors," therefore, the goal is to provide safety, the prerequisite for affect management, skill building, trauma resolution and cognition. Perry

suggests that adults model new language and use challenging behaviors as opportunities for teaching these children how to respond differently. “As these children become more proficient at recognizing and expressing their anger and unresolved trauma, oppositional and aggressive behaviors decrease, and children gain internal resources that create conscious connections between their traumatic histories and their current behaviors. Through skill building and self-awareness, the children are better able to modulate their affect and behavior” (Perry, 2006).

Medication, another traditional treatment modality for ODD is based upon the medical model. A recent study of children with ADHD and comorbid ODD/CD showed that children may need higher doses of stimulants or atomoxetine to achieve remission of their symptoms and those children with only ADHD who have aggression at baseline and are given medication only, or medication and therapy, remain significantly symptomatic even after 14 months of treatment (Robb, 2010). While some medications are effective in the treatment of aggression alone, there are side effects such as weight gain, insulin and glucose issues, and seizures. In addition, some medications are successful in treating ADHD-associated aggression and the core symptoms of ADHD but not successful in treating ODD or CD associated aggression (Robb, 2010; Spencer et al, 2006; Aman et al, 2004). Therefore, it is important that other treatment options are explored.

Ravenel (2008) proposes an alternative behavior modification model that involves parent training. Ravenel (2008) teaches parents to avoid prompts, reminders and rewards while implementing a rigorous, though non-punitive system of consequences for target

behaviors. He also highlights teaching practices where parents use powerful love and discipline practices and avoid reactive and emotional responses to a child's misbehavior. This model is consistent with Albert Bandura's social learning theory approach and the importance of self-efficacy. However, it should be noted that the parents and children that had success with this alternative approach were highly motivated and were cognitively capable of understanding the strategies presented.

Use an observation method to identify the triggers that lead to negative behaviors and if possible, find ways to reduce or avoid the identified triggers. For example, antecedents to avoid would include things such as unexpected changes in routine, developmentally inappropriate expectations, inconsistent transitions, sharply worded verbal directives and body language that communicates disapproval (Hall, Williams, & Hall, 2000). Evaluating a child's environment could be helpful because some activities or room arrangements may cause anxiety or frustration. For example, is the room overcrowded? Does the child have enough uncluttered personal space? Children who are tired or hungry may also display anger or aggression and other ODD-like behaviors. On the other hand, antecedents that promote appropriate behavior include routine, consistent support during transition times, providing a child with choices, modified rules and the use of visual cues. Social skill development is also helpful as children with ODD don't just have difficulty with adults but also tend to fight, bully and aggravate their peers. Authors of several literature reviews concluded that social skill teaching is helpful for children with negative behaviors (Hall, Williams, & Hall, 2000).

Children with ODD respond well to choices such as offering an option between two acceptable alternatives to potential negative behavior. For example, if a child is going to push another child, one way to diffuse the aggression is to ask that child, “Do you want to take a walk with me around the block or do you want to color or draw?” Research suggests that children who plan their learning and choose their own alternate activities when they need redirection will feel more in control and competent (Perry, 2006). Equally important as identifying acceptable, alternative behavior choices, is to repeatedly practice the choices. Unless this additional step is taken, a child diagnosed with ODD in the heat of crisis will forget the plan. It is essential to go through repeated role-plays to allow the child to “practice” engaging in an alternate behavior choice when negative behavior starts (Perry, 2006; Hall, Williams, & Hall, 2000).

A consistent daily schedule can be helpful and most preschool and even school-aged children diagnosed with ODD are not capable of using a written routine. However, image and picture schedules work well. A visual schedule is especially successful for children who display difficult behavior when an adult verbally directs them (Hall, Williams, & Hall, 2000). Many suggest the use of visual storyboards. For example; a plain sheet of paper is divided into four to six rectangles, each representing a step in the task that needs to be performed or perhaps “the morning routine.” To deal with transition time, foreshadowing uses a cuing system to let the child know that the current activity is ending and a new activity will be starting. An example of foreshadowing is telling the child how much time they have left to finish their current activity or playing a song and when the music ends, that indicates that the current activity is over.

A new technique called video self-modeling (VSM) has demonstrated good results in ameliorating negative behaviors associated with attention disorders, depression, aggression and other disruptive behaviors (Buggey, 2007). VSM takes the use of storyboards a step further and uses only positive and developmentally appropriate target behaviors that provide children with an opportunity to view themselves performing tasks just beyond their present functioning level via creative editing using video software (Buggey, 2007). VSM allows children to become an active participant in their intervention, which is highly motivating and provides a boost in self-esteem and confidence leading to overall self-efficacy.

Nutritional and dietary factors are usually downplayed in traditional intervention circles, however, one study found significant improvement in ODD behaviors following 8 weeks of daily supplementation with a high dose of two important omega-3 fatty acids, EPA and DHA. Supplementation resulted in significant increases in the levels of EPA and DHA in the blood as well as significant improvement in behavioral assessment scores (Sorgi, Hallowell, Hutchins, & Sears, 2007).

Limiting/restricting children's exposure to violent television and video games may be beneficial. Some argue that early life exposure to these kinds of rapid, passive stimuli can lead to "hard wiring" changes in the brain causing children to display negative behaviors that are thought to be absent without this exposure (Ravenel, 2008).

After researching several other interventions for ODD, again, the similarity in effective approaches stood out as being consistent with interventions that are successful in treating childhood trauma because the psychophysiology is alike. The restoration of a sense of safety and power is a primary concern in trauma intervention. The activities are primarily sensory activities, as trauma is experienced at a sensory level, not a cognitive level. The structure of the intervention, however, directs those sensory experiences into a cognitive framework, which can then be reordered in a way that is manageable and empowering for children (Steele & Raider, 2009; Saigh, 1999). This intervention “is structured because with structure comes a sense of control and safety” (Steele & Raider, 2009, p. 63). Trauma-specific questions are used to help the victim give their experience a language, to tell their story. Sensory activities are used to help the victims make us a “witness” to what the experience was like. Once those tasks are completed, the child can now think differently about what happened. Cognitive reframing is scripted to insure that the victim is provided a “survivors” way of making sense of the trauma experience. The goal is to help move the victim from “victim thinking” to “survivor thinking” which leads to empowerment, choice, active involvement in their own healing process and a renewed sense of safety and hope. Sensory-based interventions to help lower arousal, which appear to be an essential component of working with children diagnosed with ODD based upon the physiology of ODD. Any sensory interventions that aim to reduce arousal and target sensory instead of cognitive functions will be helpful with ODD children. Intervention strategies such as art, music, drama, bibliotherapy, meditation, yoga, and breathing and imagery exercises are examples of sensory-based interventions.

As one of the top diagnosis given to children today, it is certainly important to understand both the etiology and intervention options that are proposed for ODD. When ODD is viewed from a biological and trauma-informed perspective, compassion and understanding from parents and teachers follow. This is the basis for accommodation. No doubt it is difficult sometimes to have patience for a child who defies rules, destroys property and disrupts homes and classrooms however, with education educators and parents are more easily able to comfort and support their children.

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