Behavioral Disorders in Children

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Abstract

The child and adolescent psychopathology have been categorized into two broad classes, emotional (also called internalizing) and behavioral (externalizing) problems (disorders). In this paper, we describe the behavioral disorders in children. Behavioral problems are characterized by behaviors that are harmful and disruptive to others. Disruptive behavior disorders include attention deficit hyperactivity disorder (ADHD), conduct disorder and oppositional defiant disorder. These behavioral disorders, attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder and conduct disorder in childhood and adolescence period will be discussed in more detail.

Keywords: behavioral disorders, attention deficit hyperactivity disorder (ADHD), conduct disorder, oppositional defiant disorder.

1. Introduction

Emotional and behavioral disorders and all other mental disorders, are described and classified in the following two diagnostic systems which are used by professionals around the world: the Diagnostic and Statistical Manual of Mental Disorders (DSM, currently version DSM-5, American Psychiatric Association, 2013) and the International Classification of Diseases (ICD, currently version 10, World Health Organization, 1993).

These two systems – DSM-5 and ICD-10, offer the universally accepted standard criteria for the classification of mental and behavior disorders in childhood and adults (Ogundele, 2018).

The child and adolescent psychopathology have been categorized into two broad classes, emotional (also called internalizing) and behavioral (externalizing) problems (disorders). Whereas behavioral problems are characterized by behaviors that are harmful and disruptive to others, emotional disorders signify a core disturbance in introjective emotions and mood, namely, sorrow, guilt, fear and worry (Zahn-Waxler, Klimes-Dougan & Slattery, 2000).
2. Disruptive behavior disorders

Disruptive behavior disorders are considered to be the commonest externalizing behavioral disorders among children and adolescents (Ogundele, 2018). Disruptive behavior disorders include attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder and conduct disorder.

2.1 Attention deficit hyperactivity disorder (ADHD)

ADHD is the commonest neurobehavioral disorder in children and adolescents (APA, 2013). According to the epidemiological studies’ data the prevalence of ADHD ranges between 5% and 12% (Ogundele 2018). The incidence of ADHD is reported to be 2.5 times higher in males than in females (9.2% of males versus 2.9% of females cover the criteria for the diagnosis). Prevalence rates for ADHD vary by age. Studies indicate that school-age children are more likely to be diagnosed compared with preschool-age children and adolescents (Floet, Scheiner & Grossman, 2010).

ADHD is considered a lifelong condition. There are reports that 60% to 80% of adolescents who have been diagnosed with ADHD as children, continue to meet criteria for ADHD during their adolescence and adulthood (Floet, Scheiner & Grossman, 2010).

The ICD-10 does not use the term “ADHD” but “hyperkinetic disorder”, which is equivalent to severe ADHD (WHO, 1993).

ADHD is a behavioral disorder that is characterized by levels of hyperactivity, impulsivity and inattention that are disproportionately excessive for the child’s age and development and cause functional impairment (Floet, Scheiner & Grossman, 2010).

According to the DSM-5 classification ADHD includes three subtypes (APA, 2013):

(1) predominantly hyperactive/impulsive,
(2) predominantly inattentive, and
(3) combined types.

In order to diagnose attention deficit in childhood it is necessary at least 6 of the following symptoms to be presented for at least 6 months to a degree that is inconsistent with developmental level and that negatively influences directly social and academic activities of a child (APA, 2013: 59):

(a) Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities (e.g., overlooks or misses details, work is inaccurate).
(b) Often has difficulty sustaining attention in tasks or play activities (e.g., has difficulty remaining focused during lectures, conversations, or lengthy reading).
(c) Often does not seem to listen when spoken to directly (e.g., mind seems elsewhere, even in the absence of any obvious distraction).
(d) Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., starts tasks but quickly loses focus and is easily sidetracked).
(e) Often has difficulty organizing tasks and activities (e.g., difficulty managing sequential tasks; difficulty keeping materials and belongings in order; messy, disorganized work; has poor time management; fails to meet deadlines).
(f) Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (e.g., schoolwork or homework; for older adolescents and adults, preparing reports, completing forms, reviewing lengthy papers).

(g) Often loses things necessary for tasks or activities (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).

(h) Is often easily distracted by extraneous stimuli (for older adolescents and adults, may include unrelated thoughts).

(i) Is often forgetful in daily activities (e.g., doing chores, running errands; for older adolescents and adults, returning calls, paying bills, keeping appointments).

Similarly, the diagnosis of hyperactivity and impulsivity in children requires the presence of six or more of the following symptoms for at least 6 months to a degree that is inconsistent with developmental level and that negatively influence social and academic activities (DSM-5, APA, 2013: 60):

(a) Often fidgets with or taps hands or feet or squirms in seat.

(b) Often leaves seat in situations when remaining seated is expected (e.g., leaves his or her place in the classroom, in the office or other workplace, or in other situations that require remaining in place).

(c) Often runs about or climbs in situations where it is inappropriate.

(d) Often unable to play or engage in leisure activities quietly.

(e) Is often “on the go,” acting as if “driven by a motor” (e.g., is unable to be or uncomfortable being still for extended time, as in restaurants, meetings; may be experienced by others as being restless or difficult to keep up with).

(f) Often talks excessively.

(g) Often blurts out an answer before a question has been completed (e.g., completes people’s sentences; cannot wait for turn in conversation).

(h) Often has difficulty waiting his or her turn (e.g., while waiting in line).

(i) Often interrupts or intrudes on others (e.g., butts into conversations, games, or activities; may start using other people’s things without asking or receiving permission; for adolescents and adults, may intrude into or take over what others are doing).

There is no evidence for a consistent association among ADHD incidence and race, ethnicity, or socioeconomic status of the individuals with this diagnosis although it is considered that environmental and biologic factors may increase the risk of ADHD (Floet, Scheiner & Grossman, 2010). Environmental factors include early lead exposure and prenatal exposure to cigarette smoking and alcohol and biological factors include low birth weight, prematurity and intrauterine growth restriction (Floet, Scheiner & Grossman, 2010).

Current research in the fields of neurobiology, genetics, and neuropsychology support a biologic origin for ADHD. Results of an impressive amount of studies demonstrate a relation between ADHD and brain systems that control attention and regulate inhibition (Floet, Scheiner & Grossman, 2010).

Structural and functional differences in certain brain regions were found between individuals with and without ADHD, respectively, especially in prefrontal cortex, striatum, and cerebellum (Qui et al., 2010; Norman et al., 2016, for meta-analysis).

A popular hypothesis of pathogenesis of ADHD suggests that ADHD is associated with deficits in executive functions. Many studies using neuropsychological assessment of executive function in children with ADHD have found worse performance of specific tasks such as set shifting, working memory, or processing speed, and other tasks in children with ADHD in
comparison to their control peers, although some authors share the view that executive function deficits may be a comorbid problem among children who have ADHD rather than a specific sign of ADHD (for a review see Floet, Scheiner & Grossman, 2010).

In addition, genetic studies evidence that genes play an important role in etiology of ADHD, and its comorbidity with other disorders, with multiple genes contribute to the ADHD phenotype, including those related to dopaminergic, serotonergic, and noradrenergic neurotransmission (Faraone & Larsson, 2019).

2.2 Conduct disorder

**Conduct disorder** refers to severe behavior problems including repetitive and persistent manifestations of serious aggressive or non-aggressive actions and behaviors in which the basic rights of others and major age-appropriate social norms or rules are violated (Pisano et al., 2017). This disorder seriously disturb a child’s social and academic functioning (Campbell, Shaw & Gilliom, 2000).

Children with conduct disorder often cannot understand the thoughts and feelings of others, and often look to others too restrained and non-emotional. They may misunderstand the intentions of others as malicious. Also, these children often suffer from immature language skills, immature or missing social skills to create and maintain friendships, which in turn become cause for increased feelings of sadness and frustration in these children (Ogundele, 2018).

According to the DSM-5, the diagnosis conduct disorder requires “...the presence of at least three of the following 15 criteria in the past 12 months from any of the categories below, with at least one criterion present in the past 6 months (APA, 2013: 469-470):

a. *Aggression to people and animals*: (1) Often bullies, threatens, or intimidates others; (2) Often initiates physical fights; (3) Has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun); (4) Has been physically cruel to people; (5) Has been physically cruel to animals; (6) Has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery); (7) Has forced someone into sexual activity.

b. *Destruction of property*: (8) Has deliberately engaged in fire setting with the intention of causing serious damage; (9) Has deliberately destroyed others’ property (other than by fire setting).

c. *Deceitfulness or theft*: (10) Has broken into someone else’s house, building, or car; (11) Often lies to obtain goods or favors or to avoid obligations (i.e., “cons” others); (12) Has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery).

d. *Serious violations of rules*: (13) Often stays out at night despite parental prohibitions, beginning before age 13 yr; (14) Has run away from home overnight at least twice while living in the parental or parental surrogate home, or once without returning for a lengthy period; (15) Is often truant from school, beginning before age 13 years.

According to the epidemiological data, cited by Ogundele (2018), conduct disorder is the most common reason for psychological and psychiatric treatment in childhood and adolescence.

2.3 Oppositional defiant disorder

**Oppositional defiant disorder** is considered to be the mildest and commonest of the disruptive behavior disorders. According to the epidemiological studies’ data its incidence is
of 6%-9% for pre-schoolers with the disorder being 2-3 times more common in boys than in girls (Nock et al., 2007).

This disorder is diagnosed broadly on the basis of a pattern of frequent and persistent angry or irritable mood, argumentativeness or defiance, and vindictiveness, lasting at least 6 months (Ghosh, Ray, & Basu, 2017).

According to the DSM-5 criteria, the diagnosis oppositional defiant disorder requires the presence of a specific pattern of behavior which includes at least four out of 8 symptoms from any of the below listing categories that the child exhibits when interacting with at least one subject who is not a sibling (APA, 2013: 462):

(a) **Angry/irritable mood**: (1) Often loses temper; (2) Is often touchy or easily annoyed; (3) Is often angry and resentful.
(b) **Argumentative/defiant behavior**: (4) Often argues with authority figures or, for children and adolescents, with adults; (5) Often actively defies or refuses to comply with requests from authority figures or with rules; (6) Often deliberately annoys others; (7) Often blames others for his or her mistakes or misbehavior.
(c) **Vindictiveness**: (8) Has been spiteful or vindictive at least twice within the past 6 months.

Recent research has shown that the oppositional defiant disorder might have two separate symptom dimensions: affective and behavioral. Based on these two phenomenologically distinct signs of the disorder, two types of oppositional defiant disorder have been distinguished: the one subtype is characterized by affective symptoms of irritability, temper tantrums, and resentful attitude, and the other subtype is characterized with the features of defiance like vindictiveness and arguing (Mikołajewski, Taylor & Iacono, 2017).

In a brief overview of the current studies’ findings about the etiology of oppositional defiant disorder, Ghosh, Ray and Basu (2017) summarized that oppositional defiant disorder is highly heritable, with a definite genetic overlap with other externalizing disorders. The role of interactions between genes and environmental factors, both familial and extra familial, in the emergence of oppositional defiant disorder have been extensively explored in the past decade.

Also, neuroimaging findings suggested that various parts of the prefrontal cortex, amygdala, and insula may be related with pathogenetic mechanisms of oppositional defiant disorder.

3. Conclusions

Unfortunately, in the last 1-2 decades, a tendency of significant increases in the prevalence of childhood social, emotional, and behavioral problems have been observed (Layard & Dunn, 2009). Emotional and behavioral disorders in childhood have significant negative impacts not only on the individual, but also on his/her family and the society as a whole. Their effect on the individual can be seen in the form of poor academic, occupational and psychosocial functioning. Their effect on the family can be seen in the form of trauma, disruption, psychological problems and all possible consequences and damages of deviant and delinquent behaviors of the affected family member. And finally, their effect on the society can be seen in the form of direct behavioral consequences related to the problems caused to the victims of crime or aggression in homes, schools and communities, as well as financial costs of services to treat the affected individuals (Ogundele, 2018).
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