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Emotion Regulation and ADHD

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ADHD (attention deficit hyperactivity disorder) is one of the most common pediatric disorders (Castellanos & Tannock, 2002). ADHD is typically present in adolescence and adulthood, and it is regularly linked to a variety of unfavorable consequences. The term ADHD was first coined as part of the Diagnostic and Statistical Manual's restructure and upgrade. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) Prior to this, children with ADHD were diagnosed with brain malfunction or learning disabilities. hyperkinesia and brain damage (Barkley, 1990). When compared to peers of a comparable age, children with the inattentive subtype have trouble with tasks that demand continuous mental effort, are more disorganized, and are quickly distracted and forgetful (Sergeant, Oosterlaan, & van der Meere, 1999). When compared to typically developing children, children with the HI subtype were described as being more fidgety, restless, and "squirmy." The mixed subtype, which includes six or more symptoms from each of the inattention and hyperactivity categories, is the most usually diagnosed subtype (APA, 2000). Children with ADHD, as compared to regular children, have trouble controlling ongoing behavior (Oosterlaan, Logan, & Sergeant, 1998) as well as instant satisfaction. ADHD is a neurodevelopmental disease characterized by a pattern of inattention and/or hyperactivity- impulsivity that interferes with daily life. It also distinguishes between mild (small impairments with few, if any, symptoms in excess of the six required for diagnosis), moderate (impairment between mild and severe), and severe (impairment between severe and severe) (marked impairment and with several symptoms in excess of those necessary for a diagnosis). According to the DSM-5, these symptoms must have lasted at least six months, have had a direct influence on social and academic/occupational activities, and have occurred before the age of twelve. In addition, the DSM-5 provides for diagnosis in adolescents and adults, as different age groups may be affected by the illness. Individuals over the age of 17 are expected to have symptoms for at least five months, as opposed to six months for children and adolescents; also, individuals aged 17 and above are only required to have five of the required symptoms, rather than the six required for younger children. Different age groups may be affected by the illness. Individuals over the age of 17 are expected to have symptoms for at least five months, as opposed to six months for children and adolescents; also, individuals aged 17 and above are only required to have five of the required symptoms, rather than the six required for younger children. As previously stated, children with ADHD frequently experience academic and social difficulties. Academic deficiencies, school-related problems, and peer neglect are the most common causes of inattention, whereas peer rejection and, to a lesser extent, accidental harm are usually connected with hyperactivity or impulsive symptoms (Willcutt et al., 2012). Family relationships are continually stressed, resulting in disagreement and bad interactions for a person with ADHD, adding to the stress. Furthermore, attentional problems frequently have a large impact on rates of mother-child rejection; however, rejection appears to have a significant impact on the attention problems of fathers' children (Lifford, Harold, & Thapar, 2008). Furthermore, peer rejection, neglect, or taunting of the individual with ADHD has an impact on peer interactions.

ADHD is severely debilitating in its severe form, as it has a negative influence on social, familial, and academic/occupational functioning (Hinshaw & Melnick, 1995; Hoza et al., 2005). Individuals with ADHD have a lot of trouble controlling their initial ideas, behaviors, and emotions during a task, which makes it difficult for them to manage tasks and achieve their goals (Barkley, 2006). Behavioral inhibition and self-regulation difficulties are a common aspect of ADHD, according to numerous models (Cleary & Zimmerman, 2004). One such paradigm views ADHD as essentially a problem of behavioral inhibition, which leads to a faulty understanding of time awareness and inadequate time management (Barkley, 2006). The executive function system, which underpins the capacity for self-organization and goal-directed activities, is tightly linked to ADHD and associated components in this paradigm; consequently, executive function impairments result in behavioral disinhibition. The first inability to lessen pre-potent responses to a given environment, according to Barkley, is the foundation for the major symptoms of ADHD (i.e., impulsivity, inattention, and hyperactivity). Individuals can use behavioral inhibition to stop an ongoing response or response pattern, resulting in a delay and the ability to take self-directed action (Barkley, 2006). These self-directed actions are outlined by core executive function processes like planning and working memory (Elliott, 2003); this lag in time and executive functioning during normative functioning is what leads to effective and appropriate actions, as well as appropriate emotional expression in relation to a task. Individuals with ADHD, on the other hand, struggle to inhibit behavior and create this delay, indicating that they are frequently unable to prevent immediate reactions to situations, such as answering or speaking out of turn, moderating emotional responses, controlling movements, or maintaining attention and focusing on tasks with little immediate reward or positive consequence (Travell & Visser, 2006). Poor emotion self-regulation, excessive emotional expression, problems with rage and violence, and higher difficulties coping with frustration and empathy are all symptoms of emotional impairments in children and adolescents with ADHD. When compared to children without emotional and behavioral challenges, studies demonstrate that children with emotional and behavioral difficulties are impulsively emotional and lack the ability to manage their behavioral responses to emotionally arousing events (Cross, 2011).

Executive functions are a group of interconnected cognitive processes that enable for effective problem solving and goal-directed activities; these processes include inhibition, working memory, attention shifting, planning, task initiation, and error detection and correction (Willcutt, Doyle, Nigg, Faraone, & Pennington, 2005). Self-regulatory processes, according to researchers, are at the root of cognitive, behavioral, and emotional regulation (Berger, Kofman, Livneh, & Henik, 2007; Posner & Rothbart, 1998). This shows that in goal-directed contexts, executive processes are involved in emotion self-regulation (Zelazo & Cunningham, 2007). Emotion regulation has been found to be consistently linked to inhibitory processes; for example, performance on an emotion regulation task (i.e., responses to a disappointing gift) was significantly correlated with responses on tasks investigating inhibitory processes (i.e., Simon Says) and suppression or slowing of responses (e.g., not pulling a lever or drawing a line very slowly) in a study of typically developing preschool children (Carlson & Wang, 2007).

Furthermore, a study of young adults' performance on a Stroop task found that this measure of inhibitory processes and conflict monitoring was associated with the ability to successfully moderate negative reactions to novel and visually unappealing food (Kieras, Tobin, Graziano, & Rothbart, 2005). Individuals also had more difficulty moderating their negative responses when asked to split their attention by remembering an eight-digit number during an exercise designed to test executive function processing capabilities. The findings of Walcott and Landau (2004), who found that emotion regulation was closely linked to the speed of the inhibition process using trials like the Stop Signal Reaction Time Task, back up this theory (SSRT). Hoeksma, Oosterlan, and Schipper (2004) discovered that rage fluctuation over a period of days was substantially associated with outcomes on the SSRT, which evaluates the time required to stop an inappropriate response in children aged ten to thirteen. This is yet another sign of behavioural inhibition, as studies suggest that SSRT deficiencies are linked to attentional and cognitive problems (Alderson, Rapport, & Kofler, 2007). Children with severe mood disorders experienced difficulty with attentional orienting and initial attentional processing, according to Rich et al. (2008), who also found that almost 80% of their participants had comorbid ADHD. This shows that the underlying processes in ADHD are likewise linked to attention and emotion regulation, bolstering the argument that executive function task impairments are directly linked to ADHD and emotion regulation.

ADHD and Intellectual Functioning

ADHD affects people of all ages and intellectual abilities. As a result, those with high intellectual functioning are more likely to develop ADHD. However, it is often mistakenly believed that high functioning persons cannot possibly have ADHD sliding them to suffer a similar battle as their lower IQ friends in attempting to get acknowledgment and treatment for their symptoms. Their personal experiences, academic and occupational attainment may be extremely diverse and without disability in childhood, but they have one thing in common: they are both failing in their own potential, which produces bewilderment and pain. Children with high IQs are also more likely to be accepted into selective educational institutions where they will be surrounded by other intelligent children. Smaller class numbers with more structure and less possibility for distraction are likely to have benefited them here; they may have had more opportunities for individual tutoring due to higher teacher-to-pupil ratios and/or additional input from teaching assistants. This means they may perform admirably academically (though with some inconsistency), and problems might not surface until later in their careers, when they are required to organize their own work and/or lead others. This is when things can start to fall apart for people who are still sick. Others, using functional techniques, continue to adapt and discover solutions to overcome obstacles. For them, a breakdown in these methods may be initiated by external elements in their career (high work pressure and long hours), or because their own resources have been

depleted as a result of the development of physical or mental health problems, or as a result of severe life events (such as bereavement, redundancy and divorce).

Then, like a stack of cards, everything falls apart; the person loses the ability to use compensatory methods and may resort to dysfunctional ones (such as drinking excessive alcohol or taking drugs). It isn't long before 'impairment' becomes an unavoidable companion.

The link between ADHD and specific learning difficulties could be explained in three ways:

- (1) learning is hampered by attention deficits;
- (2) difficulties with working memory can limit the ability to decipher complicated language; and/or
- (3) both conditions have similar neurological foundations, particularly those related to executive dysfunction (e.g. Denkla, 1996).

Indeed, frontal lobe systems involved in cognitive control are likely to be impacted, which can lead to attentional and information processing issues that are similar to both illnesses (Duncan et al., 1994).

Individuals with comorbid ADHD and dyslexia may be underrepresented in clinical care because they have trouble filling out screening questionnaires, which discourages them from following through with recommendations. Written information relevant to the diagnostic and/or treatment procedure offered in an appropriate manner for their needs, such as enlarged text utilizing black and white plain characters, may be helpful to such individuals. Some therapy activities can be converted to a verbal record utilizing a recording device from their written version. In a similar way, a session can be recorded.

Conclusion

The most common treatment for ADHD is pharmaceutical treatment, which has been found to effectively reduce symptoms in many people with the disorder. However, this may have a short-term benefit (Jensen et al., 2007) and is insufficient to address the many mental health needs and pervasive deficits associated with growing up with ADHD. Symptom reduction is just one of the treatment goals for ADHD adolescents and adults who have a slew of other issues and may require psychological interventions to help them manage with the emotional, social, and occupational pressures they experience on a daily basis.

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