

How to Use: Real Stuff for Real People

Several strategies can be used to compensate for executive skills deficits that are specific or non specific to the disorders discussed above. These include but are not limited to the following:

Because kids with EF lack the ability to optimally self-organize; a school and home environment that organizes for them can support more optimal levels of self-regulation and adherence to daily demands. Organizational strategies include the support of visual schedules; designated distraction-free places to do homework or for downtime; clear expectations, rules and limits; maximal consistency in styles of parental discipline.

A visual schedule for younger children, for instance can be created by using picture cards to represent each step in a sequence and placing these in order, on a schedule, from left to right. At the very end of the picture schedule should be a card to represent the “reward” or pre-

ferred activity which reinforces task completion.

Simplified versions of the type of day planners used by adults can help a school age child organize his day. Including things your child likes or considers special in the pockets of the binder/planner can decrease the likelihood that he’ll misplace it.

A schedule to mark calendar changes and due dates for assignments can be used for older children. External incentives can be used to motivate and reinforce your child or teen for taking a proactive approach to his work. A weekly homework log can be sent from school to home and back; keeping all parties informed of work due and progress achieved. Assignment checklists can be used to break large, overwhelming tasks into manageable units.⁶

Address your child’s problems with procrastination or “self-starting” projects by practicing goal setting. Coach her on making lists and arranging appropriate goals in a hierarchy.

References

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Executive Dysfunction in Children and Teens

By Jennifer Gale, Psy.D.

Executive Functions

I often think of the role of an air traffic controller as a metaphor for the job of the “executive functions” of the human brain. Air traffic controllers are the people who operate the air traffic control system to expedite and maintain a safe and orderly flow of traffic and help prevent mid-air collisions. A given aircraft can be in tip-top structural, mechanical, and cosmetic shape, but much like the executive functions of the frontal lobes of the human brain, if someone does not efficiently direct the airplane through the airspace, the aircraft, like the brain, will fail to safely operate.

Located at the front of each cerebral hemisphere, the frontal lobes are the area of the mammalian brain that mediates our executive functions. Executive Functions (EF) describe higher-level control processes that modulate more basic sensory, motor, cognitive, memory, and affective functions.¹ EF skills include—but are not limited to—organization, planning, problem solving, execution of goal directed activity, concept formation, attentional shifting, time estimation, response

inhibition, trial-and-error learning, and self-monitoring of one’s performance. These higher level functions enable us to process all features of a situation so that goals and plans can be prioritized and behavioral strategies implemented, monitored, and modified in response to the changing demands of the environment.

The frontal lobes are the last region of the brain to develop, and in the absence of a severe neurodevelopmental or acquired brain injury, our executive function skills will continue to mature into our third decade of life. For instance, a number of EEG studies have found a dramatic spurt in frontal lobe maturation between the ages of 17 and 20.³ The maturity process of executive functions explains why, for instance, we are likely to tantrum when we hear “No!” at age 3; but not at 13; why we are more likely to succumb to peer pressure to try drugs or alcohol as a preteen or teen versus as a young adult; and why we are prone to defer long-term commitments, to a partner or career, until our third decade of life.

Executive Dysfunction

But executive functions do not always mature progressively, linearly, or as effectively as desired to strategically yet flexibly navigate and organize our ongoing responses to a complex environment. The remainder of this article will specifically address known difficulties in executive functions associated with common neuropsychological disorders.

1. ADHD. From a neuropsychological perspective, the concept of attention as an executive function includes the ability to filter extraneous, non relevant, or distracter stimuli; to focus or sustain mental effort; to execute and self-monitor a response; and to shift and direct attention to acquire information. In other words, attention involves the ability to focus, execute, sustain, and shift. Children with ADHD have difficulty thinking before they act. They do not efficiently weigh the consequences of their plans or actions or consider the consequences of their past behavior.⁴ It is a struggle for them to follow rule-governed behavior due to their problems with separating experience from response, thought from emotion, and action from reaction. In the heat of the moment, their limited capacity for self control is quickly overwhelmed by their immediate need to act.⁵

Children with ADHD have difficulty sustaining attention to repetitive, effortful, uninteresting, or non preferred tasks. Due to lack of inhibition they tend to be excessively restless, overactive, and easily emotionally aroused. Again due to problems with inhibition, children with ADHD can tend to require immediate, frequent, predictable, and meaningful rewards.⁴

2. Autism Spectrum Disorders, including classic, mild, or high-functioning autism, Pervasive Developmental Disorder (PDD) and Asperger's Disorder, are the diagnostic labels for a group of social disabilities that fall on the autism spectrum. The presentations of children on the autism spectrum vary greatly by symptom expression and level of functional impairment caused by autism-specific symptoms. However, in my clinical experience, the presentations of children and teens across the autism spectrum share in common features of executive dysfunction.

Because a core deficit seen in individuals with autism is "Theory of Mind" or the ability to take another's perspective, children with autism spectrum disorders tend to show deficits in their ability to censor or to inhibit thoughts or to weigh the potential effects of their thoughts on others. They can

ask inappropriate questions or make inappropriate statements. They can become absorbed in their own thoughts or reactions to their own internal stimulation, thus losing track of what is going on around them or displaying an inappropriate emotional response.

Children with more moderate expressions of autism are prone to rigid patterns of thinking such that they can have low tolerance for uncertainty, ambiguity, or changes in routine. They tend to lack the capacity to adapt to novel stimuli or new environments, and when overwhelmed, they are prone to engaging in nonfunctional motor mannerisms, rituals, or routines.

Children with higher functioning autism are prone to organizational challenges, deficits in time management, and weak trial-and-error learning. While typically stronger cognitive skills allow them to function well in elementary years, as curriculums become more abstract, and the demands for executive function increase, their adaptive skills and capacity for academic success can decline.

3. Obsessive-Compulsive Disorder (OCD)

Unlike autism which is a neurostructural disorder, OCD is a non-neurostructural disorder that shares features of executive dys-

function. OCD is an anxiety disorder characterized by the repeated occurrence of obsessive or intrusive and unwanted thoughts or images and/or compulsions of sufficient severity that they are time-consuming or cause marked distress or impairment in function. Patients with OCD describe difficulties in planning or switching to a more productive alternative response; the latter of which reinforces or strengthens the compulsive urge, for example, to carry out automatic and repetitive checking rituals.

I have a teenage patient that describes his difficulty with spontaneity or with scheduling more than one outside activity per day. The strength of her compulsive adherence to an array of home-based checking rituals is so severe that she cannot be away from her home for any great length of time. The time she spends ruminating on intrusive, unwanted thoughts interferes with her focus and concentration and her ability to shift and direct attention to acquire new information. When her OCD symptoms are heightened, as in times of stress, illness, or fatigue her executive skills decline, and her school performance suffers too.*

*Disclaimer: Identifying information was changed to maintain the confidentiality of the case example given.