# **SPED 610 Transcript for ADHD and Executive Function - Dr. Russell Barkley | Child Mind Institute**

[00:00:00.000] [MUSIC PLAYING]

[00:00:04.010] DR. RUSSELL BARKLEY: The latest thinking on ADHD includes the topic of executive functioning as being related to ADHD, and possibly actually being the core functions or deficits in the disorder. Now, we can think of the executive functions simply as those capacities for self-control that allow us to sustain action and problem-solving toward a goal.

[00:00:27.920] So, it’s goal-directed problem-solving and goal-directed persistence. Now, there are at least five of these executive functions that appear to be involved in self-regulation, and research suggests that most of them, and probably all of them, are implicated in the disorder.

[00:00:44.480] The first of these is the ability to inhibit your behavior, to stop what you’re doing, in order to allow the other executive functions to be able to take over and guide your behavior toward the future. The second is the ability to use visual imagery, often called non-verbal working memory.

[00:01:01.190] Humans have the ability to hold images in mind about what they are proposing to do, and they use those images as mental maps to guide their behavior toward the intended target and also to remember the sequence of steps that’s necessary to accomplish that goal or that task. Out of this executive ability also comes our sense of hindsight, foresight, and overall our subjective sense of time.

[00:01:26.360] So, we would expect all of these to be impaired by the disorder and so they seem to be. The third executive ability is the ability to talk to yourself in your mind as a form of self-guidance.

[00:01:38.810] From sunup to sundown, all of our waking moments include a voice in our head that we use not just to converse with ourselves, but also to give ourselves instructions and even to question ourselves when we face a novel situation or a problem.

[00:01:53.960] This mind’s voice is often called verbal working memory, and it’s another form of self-control that humans use to guide behavior over time to accomplish goals. Now, the fourth executive ability is the ability to control our own emotions and with it, our motivations.

[00:02:12.870] It is out of here that we get emotional self-control, the ability to inhibit strong emotion that’s being elicited by things around us, and to moderate those emotions so that they’re more in keeping with our long-term welfare and our long-term goals. And then finally, there is the ability to plan and problem-solve.

[00:02:32.460] This executive function involves mental play, the ability to manipulate information, in mind, in order to discover novel combinations that might serve to overcome obstacles toward our goals and allow us to accomplish our tasks and goals as we aim our behavior toward the future.

[00:02:51.120] These five executive functions by adulthood serve as a set of mind tools, a veritable Swiss army knife of mental faculties that allow people to regulate their own behavior over time for their own long-term welfare.

[00:03:05.850] [MUSIC PLAYING]