## Executive Function: What is it and how is it impacted by ADHD? Article contributed by: Julie Jenks Kettmann, LMHC, Ph.D.

With all of the media attention given to Attention-Deficit/Hyperactivity Disorder (ADHD), it is no wonder that many people have questions about how to identify symptoms of the disorder. One of the questions that is often asked is, "How does ADHD effect thinking or the mind besides impairing concentration and focus?" One answer to this question is that ADHD negatively impacts some other key cognitive skills, commonly known as executive functions. Executive functions refer to a number of skills that we do everyday without having to think about it, such as planning or engaging in complex problem-solving. Often, those with ADHD experience significant difficulty when they are expected to plan or anticipate the steps and time it will take to complete a task. A common complaint from parents is that children with ADHD frequently underestimate the time it will take them to complete a homework assignment or household project. This difficulty makes sense given the impact of ADHD on executive functions.

Solving new and complex problems either in academic or work settings requires mental flexibility, the ability to analyze a problem, and mentally organize potential solutions. This skill set is also very difficult for those with ADHD because it is part of our executive function.

Another component of executive function is working memory. Our working memory is involved anytime we have to hold a piece of information in mind while simultaneously doing another cognitive task. For example, working memory is involved in successfully completing a math story problem. You must hold the information from the problem in your mind while simultaneously computing the calculation and then use that information to answer the problem.

Thorough testing for ADHD by a psychologist will evaluate an individual's executive functioning. For example, an ADHD evaluation at Psychology Health Group will typically include testing that evaluates working memory and complex problem-solving skills, among other cognitive skills.

To learn more about executive function, please consult the references provided.

## References:

Tuckman, A. (2007). Integrative Treatment for Adult ADHD. New Harbinger: Oakland, CA. Zeigler Dendy, C. A. (2006). Five components of executive function and how they impact school performance. In, "The New CHADD Information and Resource Guide to AD/HD. National Resource Center on AD/HD.

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