ADHD and prefrontal cortex
Full name
University’s name

ADHD referring to attention deficit hyperactivity disorder makes it hard for a person to focus, pay attention and leads towards uncontrollable behaviors. A person with ADHD is mostly fidget or is constantly active. ADHD affects children and teens and can continue in adulthood. This is a mental disorder often diagnosed among children. (Gordon, 2016) On the other hand, the prefrontal cortex is a located at the front lube of the brain. It plays a great role in the implication of a diversity of extreme complex behaviors, including planning and it gives towards personality evolution.

 Studies have found out that ADHD is associated with the prefrontal cortex. A weaker prefrontal cortex circuit especially in the right hemisphere can be a cause of ADHD. (pediatr, 2010) The prefrontal cortex needs a particular amount of norepinephrine (NE) and dopamine (DA) for proper functioning and when the level of these two is low, it weakens the prefrontal cortex (pediatr, 2010) (Gordon, 2016)and furthermore, creates the inability to concentrate, control impulsive behaviors or make decisions. Hence, causing Attention-Deficit/Hyperactivity Disorder (ADHD).
Attention-deficit/hyperactivity disorder is a complex mental health disorder. Symptoms include an amalgamation of different problems. For example, difficulty in paying attention, unable to control impetuous behaviors, and hyperactivity. ADHD in adults can lead to unsteady relationships, poor work or study performance, low self-esteem.

           The first-line treatments for ADHD include the therapeutic approach. But, recently it has been shifting towards environmental restructuring, behavioral therapy, developments in behavioral parental therapy, behavioral classroom management, and psychotherapy are first-line treatments and for adults specifically, the best first-line option is the therapeutic option. (Stephen Soreff & Faculty, oct 1 2019) All the symptoms of ADHD should be treated as a whole. But, mostly the hyperactive behavior should be taken into consideration. This can usually be overcome by medication and talk therapy.

             Comorbid and tic disorders are complex. Tic disorder is defined as repeated or unexpected fast muscle movements including sounds and vocalizations. While co-morbid disorder are two or more disorders occurring in the same person. Pharmacological considerations for individuals with these disorders include medication that can block or reduce dopamine. Fluphenazine, haloperidol (Haldol), risperidone (Risperdal) and pimozide (Orap) can help sway tics.Whereas, for co-morbid disorders, individuals should tryCognitive Behavioral Therapy (CBT), Dialectical Behavior Therapy (DBT), Therapeutic Communities (TCs) moreover, Exposure Therapy.

# References

(2016). *Attention-Deficit/Hyperactivity Disorder (ADHD): The Basics.* NIH Publication No. QF 16-3572.

clinic, M. (2019). *Adult attention-deficit/hyperactivity disorder (ADHD).* https://www.mayoclinic.org/diseases-conditions/adult-adhd/symptoms-causes/syc-20350878.

Gordon, J. (2016). *Attention-Deficit/Hyperactivity Disorder (ADHD): The Basics.* Boulevard: NIMH.

pediatr, J. (2010). *The Emerging Neurobiology of Attention Deficit Hyperactivity Disorder: The Key Role of the Prefrontal Association Cortex.* 8600 Rockville Pike, Bethesda MD, 20894 USA: HHS Author manuscripts .

Stephen Soreff, M. P., & Faculty, B. U. (oct 1 2019). *Attention Deficit Hyperactivity Disorder (ADHD) Treatment & Management.* Medscape .