"...like on it... but you've got another idea

Art & Culture, Music



"...like being supercharged all the time.... You get one idea, and you have to act on it... but you've got another idea before you finished up the first one... but of course a third idea intercepts the second and you just have to follow that one.... which makes it really hard to stay on task.

" (Sheen). People with Attention Deficit Hyperactivity Disorder (ADHD) struggle with focusing on singular tasks. The brains of people with this disorder are chemically, physically, and functionally different than the normal brain. This causes differences in how one focuses and what environments are best for effective work. Listening to music while working affects students with ADHD differently than students without the disorder. For those with ADHD, playing background music while working can increase their ability to concentrate on tasks.

Attention Deficit Hyperactivity Disorder is a disorder that affects one's ability to concentrate on tasks and remain still for long periods of time. It can also cause one to develop low-self esteem, form poor social relationships, and to have excess energy. ADHD experts Edward M. Hal-lowell and John J. Ratey say, "They are constantly moving, running, climbing, squirming, and fidgeting, but they often have poor motor skills and may be clumsy and awkward." (Sheen). It is uncertain what causes ADHD, but research shows there are chemical, functional, and structural, and functional differences in the brains' of those with the condition the disorder. Some scientists believe Attention Deficit Hyperactiviy Disorder is caused by reduced amounts of the neurotransmitter dopamine.

Dopamine controls one's organization, self-control, and concentration. A study in 2007 found results showing a decrease in the brain's system for transmitting dopamine. Researchers have also found structural differences in the brains of children with ADHD. All regions of the brain are smaller in people with ADHD compared to people without the disorder's brain.

Also, there is less volume of white matter in their brain when compared to the regular amount of white matter in unaffected brains. Neurotransmitters travel along the white matter in one's brain, therefore, having a smaller amount of white matter could lead to decreased flow of information in the brain. Also, the area of the brain that controls emotion, learning, and learning controls, called the basal ganglia, has been found to be asymmetrical instead of symmetrical like in people without the disorder.

The brain also functions differently. While performing tasks, people who are affected by Attention Deficit Hyperactivity Disorder have less brain activity in the frontal lobe than those without ADHD. The frontal lobe of the brain controls impulse control and thought. Hereditary defects which run in families and substance abuse during the pregnancy may contribute to the development of ADHD. The risk of a child developing ADHD increases by two hundred fifty percent if the mother smoked, took drugs, or drank alcohol during the pregnancy.

ADHD has shown to be partially hereditary, although scientists have yet to discover which gene or genes contribute to this disorder. The chances of developing ADHD increases by five hundred percent if a relative also has the

disorder. If one parent has ADHD there is a thirty to fifty percent chance of their child developing ADHD.

(Sheen). Listening to music can affect anyone physically, emotionally, socially, and intellectually but seems to affect those with ADHD somewhat differently. Music can physically affect the body. The speed of the heartbeat tends to speed up or slow down depending on the volume and speed of the music. Generally, louder and faster noises raise both one's heart rate and blood pressure, while slower and softer, tones produce the opposite result. Certain types of music can also relieve muscle tension and improve motor skills. For this reason, it is used in many rehabilitation centers to assist the patients and accelerate their recovery.

Music also affects people emotionally. Different genres of music can make one feel happy, sad, excited, or many other emotions. People can also use music to reduce stress, change one's mood, and as motivation while exercising. Lullabies create a calm atmosphere with soothing tones and slow beats, hence they are commonly used to relax and lull babies to sleep. Music can also help people cope with social challenges. "Learning to play an instrument is an excellent musical activity for developing motor skills in individuals with developmental delays, brain injuries, or other motor impairment.

It is also an exercise in impulse control and group cooperation." (Turner and Frey). Participating in musical activities can help improve children's self-esteem and confidence.

Music can also help people benefit intellectually. Music can assist learning and memory as well as increase one's mental acuity for those with a learning disability. People who have suffered from a traumatic brain injury or another neurological condition have been greatly aided by music. This is caused by the synchronization of movement with the rhythm of the music, or, entrainment. Over time this practice can assist people improve their motor skills as well as improvement in language skills and cognitive processes.

Having background music while studying helps many people with ADHD. It gives their brain a secondary activity to keep it occupied but does not distract them as it might for most people. Many times the background music will be tuned out so the person with ADHD does not really notice it while it helps keep their brain on multiple tasks so they can focus. Background music has been shown to enhance memory and learning and to help children with learning disabilities. In 2007, a Swedish study discovered that background noise aids in concentration for those with ADHD. While people with the disorder benefited from the background noise, those without ADHD were negatively impacted by it. This is because background noise stimulates brain activity and increases dopamine levels in the brain. People with ADHD are assisted by this because their brains contain lower levels of dopamine and reduced brain activity.

Individuals without ADHD already have enough dopamine and are therefore overstimulated by the background noise. (Sheen). Attention Deficit Hyperactivity Disorder is a disorder that is characterized by one exhibiting excess energy, a lack of organization, and the inability to concentrate. It is

not definitively known what causes ADHD, but research shows that it may be caused by chemical, structural, and functional differences in the brain.

Those brain differences may be caused by hereditary genetic factors and substance abuse like drugs and alcohol during the pregnancy. Listening to music can physically change one's blood pressure and increase or decrease one's heart rate. Music also can change one's emotions and help enhance their intelligence.

Even though playing background music might be distracting for people without ADHD, research is finding that it can be very beneficial for those with the disorder because it can boost their deficient neurotransmitter dopamine levels. Working with background music helps people with ADHD to focus and improves memory.