

Depression and Cognitive Disorders: The Correlations and Effects

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Abstract

Depression, specifically referred to as major depressive disorder (MDD), is a very common mental illness, negatively affecting emotions and decision making. Recent studies have been exposing the link between depression and cognitive disorders. Specifically, this review analyzes the connection between depression and eating disorders, Obsessive-Compulsive Disorder (OCD), and Attention-Deficit Hyperactivity Disorder (ADHD).

Depression and Eating Disorders

Eating disorders are food habits that occur because of mental or physical conditions. In the United States, approximately 29 million Americans are officially diagnosed with anorexia, bulimia, ruminative, or restrictive food intake disorders. Depression often supports the symptoms of eating disorders by enforcing the negative thoughts. Medical News explains how depression has an effect on body dysphoria, which plays a factor in bulimia nervosa. On the other hand, people who are unable to look after themselves often don't want to shower, brush their teeth, or even eat. Many of those who fall into depression look to alcohol and substance use rather than food itself. No matter where someone is on the depression spectrum, everyday activities are put on hold.

As mentioned before, for all four types of eating disorders, depression plays a big role. Depression can be the initial factor that makes one look at themselves differently. It is usually the reason for eating disorders to start or even to persist. For example, when adolescents become anorexic, it is because they look at themselves and hate what they see. They grow depressed over time until they start eating less and less. They think losing important weight would make them automatically happy, but the cycle of viewing themselves as overweight never ends. Depression causes these teenagers to continue eating less until it requires medical assistance. ANAD.org

explains how close to 60% of adolescent girls have taken medication in order to lose weight.

This same effect happens with bulimia. When people go through something traumatic, they tend to uncontrollably start eating. After an episode, they look at themselves and again hate their appearance, causing a recurring cycle. Even for rumination, people feel guilty for eating even if it's a small amount. By eating then throwing it up, they're starving themselves which they see as a good thing. The idea of looking overweight causes anyone with a disorder to fall into depression and into either major weight loss or gain.

Similarly, in eating disorders, the main stressor that causes people to harm their eating habits is depression. Depression is the one that influences one to view themselves as worse than they really are. Society places this idea that people should be skinny rather than overweight. This is so harmful because it pushes the belief that it's better to be skinny but unhealthy instead of overweight and healthy. This exact mindset leads to depression since people do anything to be skinny no matter the medical risks. When they feel like the change of eating habits aren't working, they look at themselves as useless which is a significant symptom of depression.

Depression and Obsessive-Compulsive Disorder

Depression is the most common comorbidity, or coexisting medical condition, in OCD. A study was done by Tibi et al to find out more about this relationship, in which they drew data from 382 patients with OCD in the Netherlands. By conducting assessments after two and four years, they had found that OCD tended to predict depressive symptoms after two years, but not after four. They also found that depressive symptoms couldn't predict OCD. Essentially, depression and OCD are loosely connected due to time making the correlation between the two weaker.

Additionally, a study done by Wetterneck et al analyzed the effect of depression on OCD

patients. They sampled 150 people, with an average of about 34 years old. They got their data from the patients reporting any symptoms of depression and OCD that they had while receiving their treatment. The OCD symptoms of the patients seemed to reduce greatly throughout the period that they received this intensive treatment. Furthermore, change in OCD symptoms was not affected much by symptoms of depression, regardless of the severity of these symptoms. However, change in depressive symptoms was very closely correlated to change in symptoms of OCD. In fact, this relation was stronger when patients had severe depressive symptoms to begin with. Overall, depressive symptoms don't significantly affect cognitive-behavior therapy, regardless of their severity.

This connection was more closely studied in regards to their symptoms in a study by Anholt et al, which also fortifies the aforementioned data. A study conducted by Anholt et al. strengthens the previously mentioned data. In this study, changes in OCD and depressive symptoms were tested to see if they affected the other. They put 121 OCD patients through 16 sessions of behavior or cognitive therapy, some alone and some with fluvoxamine, which is an antidepressant that is often used to treat OCD in many people. These tests proved that depression did not predict how treatment would go for OCD, however changes in OCD symptoms did predict changes in depressive symptoms after 5 years. This means that when OCD treatment succeeds, it's possible that depressive symptoms are relieved. The symptoms of OCD predicted how long depressive symptoms will last for at least the first 5 years, while depression was not able to, showing how the connection between depression and OCD became more loose after 5 years, which can be determined from the information in the previous study.

The association of depression, anxiety, and helplessness due to OCD was investigated in a study by Sun et al. They studied 3174 secondary school students in China, and used a

procedure to diagnose them of OCD, then used another design to see how OCD and depression, anxiety, and helplessness are related in a sample of 288 students with OCD and 246 without OCD. From these tests, they were able to determine that OCD, depression, helplessness, and anxiety were all directly associated as they made OCD more likely to occur. OCD also correlated with the other three conditions, as it seemed to increase their effects. As OCD became more severe, so did depression, anxiety, and how helpless the patients felt. Using this info they concluded that, in Chinese adolescents, OCD correlates heavily with depression, anxiety, and helplessness, showing their relationships.

This connection was repeatedly found to be based on specific factors, but how depression affects OCD symptoms was left half-answered. The prevalence of depression in OCD, and how many symptoms patients get depending on if they have depression or not, was examined in a study by Altıntaş and Taşkintuna. In a sample size of 140 OCD patients, of which 63 had MDD and 77 did not have depression, they found a relationship between depressive and obsessive symptoms through multiple tests administered to all the patients. It turns out that the group with OCD and depression had significantly higher anxiety, depression, and obsession and compulsion scores. This led them to the conclusion that a lot of factors result in the development of depression in people with OCD. Some specific factors that were mentioned were poor insight, severity of obsession and compulsion, stressful life events happening recently, instability and retardation, and history of suicidal attempts, which really shows why this topic such a tough one to cover since so many factors affect OCD and depression simultaneously.

Depression and Attention-Deficit Hyperactive Disorder

Attention Deficit Hyperactivity Disorder (ADHD) is a condition that affects attention difficulty, typically occurring in the childhood ages, but may result in low self esteem and other

problems in the future. ADHD is a severe disorder that commonly leads to depression (typically students). People who suffer from ADHD find it very hard to concentrate, and for students, it may hold them back, as opposed to the other students. This is because people who suffer from ADHD find it difficult to finish tasks or keep track of things, and it is proven that around 30% of students with ADHD suffer from depression as well.

According to an article by Valencia, 33% of the 135 children in Shanghai, China with ADHD suffered from depression. This test was done in 2015 and there were approximately 6.1 million children diagnosed with ADHD. This statistic also does not include adults, and it has not been updated since 2015. To further support this, an article by Arlin Cuncic uses analysis and studies by different groups explaining the topic of how ADHD can furthermore turn into depression. One study portrayed that there were 8310 individuals with ADHD data at age 7, of which 57% had depression data for at least one time point, 57% of 8310 being 4771 children had depression at one point, even when they were diagnosed with ADHD. This alone proves that having ADHD does play more of a suicidal role, as opposed to not having ADHD.

ADHD can also cause depression symptoms to manifest differently than in those without ADHD. Erica Roth analyzes studies from the University of Chicago to explain how a cognitive disorder (ADHD) can be a huge factor in depression. ADHD is a neurodevelopmental disorder, affecting your emotions, behavior, and ways of learning. People with ADHD are often diagnosed as children, and many continue to show symptoms into adulthood. The University of Chicago have found that adolescents with ADHD are ten times more likely to develop depression than those without ADHD. However, they also found a large number of adults suffering from both. So, ADHD, being a neurodevelopmental disorder can affect one's emotions and behavior, where it may eventually lead to depression.

In conclusion, depression may stem from the traits of the cognitive disorder ADHD, due to the toll ADHD takes on emotion regulation. Even though this is common in adolescents, it is very common for adults with ADHD to experience depressive symptoms as well. ADHD is one of the most common neurodevelopmental disorders for children, causing a tough childhood for most.

Gaps in the Literature

Some of the research was taken after patients subsequently received additional treatment right after the treatment received in the experiment, potentially modifying the effects of the original treatment. In other experiments, patients were selected, and those with schizophrenia, bipolar affective disorder, and other such mental conditions, plus more, were excluded from the study. Such individuals would have shown how the results would have been if people have pre-existing depression in one of the studies. In other studies, researchers found conflicting evidence, in which depression negatively affected OCD treatment, while another study said that depression did not seem to affect OCD. Such disparity could have resulted in different findings, showing why there is still a lot to research on this topic. Some of the studies only researched individuals from a certain region in the world, which could result in a conclusion that reflects how OCD patients in those specific countries responded to treatment or to depression. Instead, researching a group of distinct people from all over the world, who are different in age, origin, and many other factors, could be a better way to generalize the relationship between depression and OCD.

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