

The Science behind Anxiety and Depression

Maria Claudette*

Jamaica Hospital Medical Center, New York, USA

PERSPECTIVE

For almost a decade, depression has been the most common mental illness. This type of mental disorder has the potential to kill the patient if the patient develops self-harming tendencies. Every year, it is estimated that over 800,000 patients worldwide die by suicide as a result of depression. Hundreds of families are currently concerned about depression, while others do not recognise it as a sickness and choose to ignore it. In such instances, there is a great need for family and peer sympathy, but the reality that almost all families are unaware of this cannot be refuted. Depression is a mood condition caused primarily by hereditary issues, a stressful lifestyle, or incorrect medicine. Understanding the science behind depression is required in order to comprehend its complexity.

Understanding depression will assist us in better understanding how we are all regulated by biological science. Everything we do, from the fights we have with our friends to the peace we experience in the morning, is controlled by our bodies and nothing else. Researchers have employed cutting-edge technology to figure out what causes depression. The researchers employed Positron Emission Tomography (PET), Functional Magnetic Resonance Imaging (fMRI), and Single-photon Emission Computed Tomography (SPECT) to determine how different areas of the brain worked during depressive episodes. According to the findings, the size of the hippocampus plays a significant influence in the development of depression. Patients with depression have a Hippocampus that is 9 to 13% smaller than healthy people. The amygdala and brain were also thought to be involved in the development of depression.

Apart from the physiological component, the incorrect transmission of neurotransmitters from one neuron to another was the actual cause of depression. This fact raises a discussion point. Why don't antidepressants work right away if insufficient neurotransmitters are the fundamental cause of depression? The answer disclosed the fact that mood improvement occurs only when nerve fibres expand and form new connections. This process takes time and does not occur quickly; therefore depressive stages need time to pass. Serotonin and Norepinephrine are two chemicals that cause depression. The former is in charge of keeping us active and aware,

whereas the latter is in charge of making us feel better. The absence of both of these substances makes it difficult for the patient to concentrate on any work and causes reluctance.

In the recent era, a genetic study has expanded the scope of life science and is bringing many mysteries to light. A genetic research of depression has also been conducted, and a link between a certain gene and depression has been identified. It is impossible to deny that genetic cures for depression are still a pipe dream. They believe that through conducting study and raising awareness about depression, society will become stronger and better. It is one of the saddest and most painful realities of our day that we have entered an era in which mental health difficulties are becoming a big concern for the majority of people. According to the epidemiological study, 970 million individuals worldwide suffer from mental diseases, with the highest numbers in nations such as the United States, Ukraine, the Netherlands, and Colombia.

Depression and anxiety are the two most common mental illnesses, among many others. Depression is a mental illness marked by a loss of interest in everyday activities, as well as rage and unneeded stress. Such a mental state is detrimental to our daily lives and prevents us from working well. If not addressed effectively, depression can lead to weight gain, panic attacks, substance abuse issues, body aches, and concerns about mental health. According to science, depression is caused by a disruption in the equilibrium of neurotransmitters such as norepinephrine, dopamine, and serotonin. Anxiety, on the other hand, is a condition marked by a sense of uneasiness and apprehension about the unknown future. In actuality, anxiety is a common emotional reaction to a difficult event.

Only when such disorders become chronic and begin to influence our daily lives can they be classified as a sickness. Anxiety patients have sleep disturbances, racing thoughts, and uncontrollable overthinking. As a result, it is reasonable to conclude that depression and anxiety in society require special care. People frequently neglect mental disease, but the reality that such a mental illness frequently leads to suicide is frequently overlooked. Campaigns to raise mental health awareness in various regions of the world are working effectively, and we call for greater such knowledge among the general public.

Correspondence to: Maria Claudette, Jamaica Hospital Medical Center, New York, USA, E-mail: mariaclaudette@yahoo.com

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