

Week 3 Assignment

Scientific and Mathematical/Analytical Perspectives of Inquiry

Anxiety Disorders

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Introduction

Anxiety disorder refers to a psychological health condition of worrying, anxiousness, and fear which are strong enough to interfere with a person's daily events. Anxiety disorders are in the form of panic attacks, obsession, and post-traumatic stress. The early symptoms for one to realize they have anxiety include continuous worry and inability to set it aside, and restlessness. Anxiety is a feeling that comes and goes in the life of every person. However, higher intensities of anxiety may negatively affect the patient. Anxiety is characterized by increased heartbeat, increased breathing rates, trouble concentrating, and little or lack of sleep. Anxiety has adverse effects on the mental behavior and physiological functioning of the body. Therefore, this research focuses on reviewing articles on the effects and treatment of anxiety disorder.

Scientific Perspective

Level 1 Research Question: Which body systems are affected by an anxiety disorder?

Anxiety disorder is usually caused by the threat of the well-being of the individual, whether the threat is real or imaginary. The body's reaction to the potential threat leads to increased expectancy and activation of the neuroendocrine to assist the individual deal with the situation. Besides, the identification of dysfunctional neural circuits and vulnerable genes promotes the physiological process that protects the body from stress by responding to the fear, threat and social attachments that leads to anxiety. Therefore, the brain is the most affected body part.

According to this article by (Martin et al, 2009), the neuroendocrine, the neurotransmitter, and the neuroanatomical are usually disrupted when a person suffers from an anxiety attack. The neuroendocrine involves a combination of the endocrine system and the nervous system, the neurotransmitter involves elements responsible for the transmission of signals and messages to and from the brain. The disruption of the neurotransmitters may be caused by experiences that a person encounters and underlying genetic alterations. Moreover, the disruption causes the brain to send signals to the emotional centers, thus causing an imbalance which leads to mood alterations. Also, the brain of a person suffering from an anxiety disorder is unable to plan, make decisions, predict effects, and moderate social behaviors because the orbitofrontal codes of information and control impulses within the brain responsible for emotion and mood control and management are disrupted.

Furthermore, the part of the brain that controls stress control called the hypothalamus is also affected when a person suffers from anxiety. That is, the inhibitor control becomes unable to send feedback concerning stressful events back to the hypothalamic-pituitary-adrenal axis. This makes the patient find it difficult to manage stress. Moreover, when the brain fails to send signals to different parts of the brain, the patient may fail to process different information and therefore making them have difficulties when dealing with social situations.

Level 2 Research Question: What are the most dangerous outcomes of anxiety disorder?

Everyone experiences anxiety at one point in their lives. However, increased levels of anxiety may have negative impacts on the patients, their families, and the community in general.

For instance, frequent occurrence of anxiety attacks can cause the brain to release stress hormones regularly causing headaches and depression. According to, (Brook et al, 2020) talks about the effects of anxiety disorders on the social life of a patient. His articles argue that seven to thirteen percent of the United States population suffers anxiety at a young age. The patient is likely to isolate themselves from social interaction, commencing of drug and substance abuse, loneliness, and self-harming behaviors. Moreover, anxiety leads to avoidant attachment which leads to reduced self-esteem and youths may easily become addicted to the internet and phones. Anxiety can make a person question decisions that may make them overdependent on the people around them. Childrens behavior is influenced negatively if a family member frequently suffers anxiety attacks and the general functioning of the family is generally disrupted. Besides, anxiety has led to marital problems and reduced satisfaction in the relationship.

Mathematical Perspective

Level 1: What are the statistical facts related to anxiety disorder?

According to the Center for Disease Control, over seven percent of children between ages three and eighteen suffer anxiety disorders per year. Within the United States of America, anxiety disorder affects forty million adults of ages 18 and above. Based on the same studies, people with anxiety are more likely to go the doctors three more times than people that do not suffer from anxiety disorder and are six more times likely to be hospitalized than people who do not suffer from an anxiety disorder. The study suggests that anxiety disorder may affect genes, the brain, body chemistry, personality of a person, and live events associated with a patient.

According to the CDC, generalized anxiety disorder affects approximately three percent of the population of the United States, and only forty percent of those being able to seek medical treatment from medical facilities. Those that suffer from panic disorder occupy a population of 2.7% women being twice the population than men. Furthermore, the social anxiety disorder affects at least fifteen million adults of the population of the United States and is equally distributed among males and females. The report also shows that over thirty-five percent of people that suffer from social and panic anxiety disorders experience symptoms for almost fifteen years before they seek help from medical practitioners. Major depressive disorder and persistent depressive disorder constitute 8.2 percent of the United States population. These two types of anxiety disorders affect people of all ages and their median age is thirty-one years.

Level 2: How can a person reduce the long-term effects of anxiety disorder?

Despite the increased effects of anxiety, the disorder can be managed medically through the following ways. Firstly, the healthcare organization can use antidepressants such as the selective serotonin re-uptake inhibitor and serotonin and norepinephrine to treat the general anxiety disorder through reduction of heart rates and brain activity during the attack. Other depressants include duloxetine and Lexapro. Secondly, anxiety can be treated through the use of cognitive-behavioral therapy. It involves examining how negative thoughts lead to anxiety and how the patient is likely to react to the event, situation, or activity that stimulates the anxiety attack. The main aim of the therapy is to help a patient when they are likely to be anxious, recognize their fears, and learning skills that will help them cope with their fears. Thirdly, the use of medication such as buspirone and benzodiazepines can help in the treatment of anxiety.

Buspirone can be taken continuously while benzodiazepines are used on a short-term basis for the relief of the symptoms of anxiety. However, medication is not a good choice for treating anxiety, depression, and panic attacks, especially if the patient has a drug and substance abuse problem (Wilson et al, 2019).

The utilization of modern pharmacological treatment is the most effective way of dealing with anxiety. For instance, the use of Selective serotonin re-uptake inhibitors (SSRI) helps in blocking the uptake of serotonin that raises the synaptic levels of the serotonin. The serotonin flows down to the neurotransmitters and the genes producing a chemical reaction that slows down brain activity. Despite the presence of side effects of the antidepressant such as diarrhea, headache, and jittering, the SSRI has helped the community in the management of anxiety disorders since it can treat psychiatric disorders which lead to increased levels of anxiety attacks. (Wilson et al, 2019)

Conclusion

In conclusion, anxiety represents the body's reaction to stress, fear, or the inability to comprehend what is to happen. It is a feeling that comes and goes in the life of every person. However, higher intensities of anxiety may negatively affect the patient. These are characterized as anxiety disorders and sadly, many people suffer from them. Therefore, as nurses, understanding the causes and effects of anxiety will help in determining the effective ways of treating them.

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