

Disorders of the brain

Psychology



**ASSIGN
BUSTER**

Topic Schizophrenia and brain Schizophrenia is a disease which has tremendous impact on the brain. This is a disease which can bring alteration to the chemistry of a brain and can affect the personality of a person in a bizarre manner. Here, the person who is schizophrenic has malfunctioning in the working system of nervous system. According to (Fisher, 2000)“ Schizophrenia results in varied and abnormal responses compared to those of normal, healthy individuals. The brain of individuals with the disease endures such changes that their basic functions and operations are altered”. With the emergence of schizophrenia, the patient displays delusion, hallucination, depression or mania. The disease result in hindrance of the I-functioning of the person and can motivate the patient to behave in an odd and senseless manner. Schizophrenic people have less growth when it comes to I- functioning and this can stunt the functioning of social and cognitive ability of the person. Schizophrenia affects the front lobe and temporal lobe of the brain which shows symptoms like hallucination, delusion, impaired cognitive ability, lack of sense and psychosis. The forelobe is the region of the brain where process of learning, thinking and judging take place. A defect and chemical imbalance in this region can induce the person to show psychosis and other delusional and hallucination behavior. On the other hand, the temporal lobe controls hearing, object identification and facial recognition . When a person is affected with schizophrenia then, the temporal lobe functioning is skewed resulting in visual and auditory hallucination. This mental disease called Schizophrenia is studied and evaluated by psychological world since decades. Till now, there has not risen one method by which this disease can be full studied and assessed. However one of the clinical methods which can slightly analyze the <https://assignbuster.com/disorders-of-the-brain/>

mental condition is MRI. The MRI is the Magnetic Resonance Imaging system, wherein the brain of the patient is studied with the aid of scanning and imaging. The neurological functioning of the frontal and temporal region of the brain is scanned and its image is later scrutinized and studied. As per(DeLisi, 2009, pg. 98) “ In MRI, subjects are given a test to perform that uses different brain anatomical regions while the scanner takes picture of their brain”. As a clinical procedure a person first diagnosed with Schizophrenia should be subjected to MRI to absorb the baseline brain assessment. During the scanning process, the patients with schizophrenia is given a memory or language related activity which can produce hearing or seeing response , which will be detected by the MRI scanning process. Here, the functioning of the various areas of the brain is calculated by noticing the activity intensity of the nervous system. The MRI also has the ability to measure the levels of neurochemicals in the brain as it is a quantitative imaging method. With the help of MRI scan, the medical experts can measure the volumetric reduction in the different cortical regions of brain . This includes the frontal and temporal and the various subs -cortical regions of the brain. When scientist studies about any mental illness or disorder, the main aspects they are concerned with is the brain structure and its functioning. They are primarily interested with the communicative system of the brain which happens with the aid of neurotransmitters. Analyzing and evaluating the neurotransmitters assist the scientist in understand the cause and reason for the occurrence of Schizophrenia. Neurotransmitters can be described as the messengers of the brain which transports information between various brain cells. One of the primary neurotransmitter involved with schizophrenia is dopamine . In general the Dopamine receptor is

<https://assignbuster.com/disorders-of-the-brain/>

classified into D1 and D2 families and these elements are directly linked to the psychotic behavior in a Schizophrenic person. As per (Mann, 1996)“ The D1 family contains the receptors D1 and D5. The D1 receptors in the brain are linked to episodic memory, emotion, and cognition. These functions are disturbed in schizophrenic patients”. The binding of D1 dopamine in Schizophrenic patient is lower than that of a healthy person and this leads to behavior which is delusional and psychotic. The schizophrenic brain also contains high density of D2. Due to the malfunctioning of dopamine neurotransmitter; there can be hindrance to the communication between various brain cells. Because of this defect in brain, the patient can be paranoid, have less speaking and listening ability, disorganized lifestyle, auditory and visual hallucination. Dopamine is the main culprit in divulging the cognitive ability of a person affected with Schizophrenia. However, the disease being hereditary, the best way to handle it is to avoid the disease by depending upon correct medication. Work Cited Fischer, M. (2000).

Schizophrenia: Effects on the Brain . In serendip. brynmawr. edu.

Retrieved November 16, 2012, from <http://serendip.brynmawr.edu/bb/neuro/neuro01/web1/Fisher.html>

DeLisi, L. (2009). 100 Questions & Answers About Schizophrenia: Painful Minds: Painful Minds (p. 98). Massachusetts:

Jones & Barlett publishers Mann, R. (1996, May 26). The Role of Dopamine Receptors in Schizophrenia. In chem. csustan. edu. Retrieved November 17, 2012, from <http://wwwchem.csustan.edu/chem44x0/SJBR/Mann.htm>