PSY 630 Week 2 Assignment: Obsessive-Compulsive Disorder

Student’s Name:

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Lecturer:

The obsessive-compulsive disorder (OCD) is mental illness that depicts when an individual react with anxiety, fear, and irresistible desire to repeat a trait upon a change in environment. It results from anatomical damage and changes in the brain chemical; thus, medication must aim at realigning the changes to enhance proper functioning (McKay, 2019). The brain imaging indicates that individuals with OCD have injuries or malformations on the cortico-basal ganglia-thalamo-cortical (CBGTC) loop, which relays sensory signals, and coordinate motor movement. Therefore, damage causes an improper interpretation of the body signal; hence, the patient displays the obsessive and compulsive symptoms. The pharmacological interventions should aim at healing the injured part of the CBGTC loop. Besides, the OCD results to changes in the serotonin that regulates mood and anxiety, and dopamine neurotransmitters that coordinates sensory signals in the brain (McKay, 2019). For this reason, patients should take medications that enhance proper functioning of the brain chemical.

The medications for OCD will vary depending on the symptoms, and changes in the anatomical structure and brain chemical. Therefore, they can be categorized into selective serotonin reuptake inhibitor (SSRI), or serotonin and norepinephrine reuptake inhibitors (SNRI). Also, the medications for OCD are classified into neuroleptic, and mood stabilizer. The SSRI medication is vital for increasing the levels of serotonin chemicals in the brain (Del Casale et al., 2019). The drug inhibits the re-absorption of the neurotransmitter; thus, enhancing its adequacy in the brain. The serotonin chemical is vital for regulation of moods, depression, and anxiety. For this reason, patients with OCD endure deficiency in serotonin chemicals, which result to constant anxiety and fear. The SSRI medication comprise of various drugs such as the citalopram, dapoxetine, escitalopram, fluvoxamine that prevent the reuptake of serotonin; hence, increasing its function in the brain.

Additionally, the medication may entail the serotonin and norepinephrine reuptake inhibitors (SNRI), which performs more functions than the SSRI. In this case, the SNRI prevent the re-absorption of serotonin that regulates anxiety, and norepinephrine chemical, which conveys stressful signal (Del Casale et al., 2019). The brain releases the norepinephrine neurotransmitter into the blood when an individual endures a stressful situation. Then, the chemical increases the heartbeat, and facilitate the blood flow to vital regions in the brain. For this reason, it reduces stress, and motivates the mood change. Individuals with OCD endure reduced amount of norepinephrine, and serotonin in the brain, due to constant absorption. Therefore, they become anxious, and develop stress and depression. The SNRI prevents the reuptake of the chemical; hence, increasing it levels in the brain. The medication uses various drugs such as the Desvenlafaxine (Pristiq), Duloxetine (Cymbalta), and Levomilnacipran (Fetzima).

Besides, the neuroleptic medications are vital for treatment of psychotic symptoms that result from the disorder. For instance, patients with OCD become aggressive and anxious, and develop unwanted thoughts. Besides, they depict signs of hallucination that stimulate the obsessive and compulsive traits. Therefore, the neuroleptic medication works by regulation the function of dopamine neurotransmitters in the brain (McKay, 2019). The brain chemical is vital for coordinating sensory signals, to convey the right information for motor movement. Therefore, reduction and changes in the brain’s dopamine chemical increases the obsessive and compulsive behavior in OCD patients. It requires individuals to have a moderate level of the chemical to enhance proper function. Excessive amount of dopamine neurotransmitters result to psychotic symptoms, such as hallucination and aggressiveness. Therefore, the neuroleptic medication inhibits the production of extra dopamine chemical. The medication comprise of various drugs such as the risperidone (Risperdal), olanzapine (Zyprexa), and the quetiapine (Seroquel).

In addition, the OCD patients require the mood stabilizer medication, since environmental changes are likely to alter their mental disposition. An individual with the illness will unpredictable behaviors due to constant changes in brain chemical. For instance, the OCD patients endure imbalances in the levels of serotonin and dopamine neurotransmitter that are essential for conveying sensory signals, and execution of motor movement. The mood stabilizer medications moderate the production and reuptake of these chemical. Therefore, the neurotransmitters remain at a constant level, to enhance proper functioning. The medication reduces anxiety and aggressiveness, and mitigates the obsessive and compulsive symptoms (McKay, 2019). Also, it increases the rate of brain activities, which help individual concentrate on multiple activities to limit repetitive behavior. The medication involves various drugs such as the lithium, carbamazepine, valproic acid, lamotrigine, and oxcarbazepine.

Moreover, the drugs facilitate agonist and antagonist activity of the drugs that influence the functions of serotonin and dopamine chemicals in the brain. Medication such as the SSRI and SNRI that inhibit the reuptake of the serotonin neurotransmitters enhance the antagonist activity (Murray et al., 2019). It is because the drugs do not influence the production of the chemical, but regulates its concentration in the brain. Also, mood stabilizer medications enhance the antagonist activities because they regulate the reuptake of brain chemical. In contrast, the medications that regulate the levels on the dopamine neurotransmitters are essential for agonist activities. For instance, the neuroleptic drugs have a direct influence in the function, and production of the dopamine chemical. They limit the production of excessive neurotransmitters that would result to psychotic symptoms such as hallucination, and obsessive and compulsive symptoms.

Additionally, there is a risk-benefit aspect that is factored when using various medications to treat the obsessive-compulsive disorder (OCD). For instance, the SSRI is effective in enhancing mood and reduce anxiety, as it increases the serotonin levels in the brain. Besides, it allows the users to be responsive to other treatments such as the cognitive behavioral therapy (CBT). However, the patients under SSRI treatment will endure side effects such as dizziness, blurred vision, and low sex drive (Del Casale et al., 2019). Also, the men may experience erectile dysfunction. In contrast, the SNRI medication is also important as it reduces depression and chronic pain for patients with OCD. The medication inhibits the reabsorption of the serotonin and norepinephrine chemicals. However, it has side effects to its users, as it causes headache, nausea, constipation, and excessive sweating.

Furthermore, neuroleptic class of medication displays aspects of risk-benefit in its usage. The medication alters the functions of dopamine chemicals in the brain, which stabilizes the moods, and reduces psychotic symptoms such as hallucination and aggressiveness. It also helps individuals with disorganized thinking, and enhances proper functioning. However, the uptake of the neuroleptic medication has various side effects such as dizziness, weight gain, and difficulties in movement. Besides, excessive use of the medication results to neuroleptic malignant syndrome. Also, the mood stabilizer medication is vital for OCD patients, as it regulates anxiety, and enhances mood changes. Therefore, it prevents the obsessive and compulsive symptoms experienced by individuals with OCD. The mood stabilizer medication has a number of side effects. For instance, its causes skin irritation and rushes, reduces vision abilities, and loss of coordination. Besides, the medication leads to increased thirst, and frequent urination and vomiting.

References

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