

Depression control with drugs - Is it worth it

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ABSTRACT

Depression has become a universal problem among people. Depression is a mood disorder characterized by pessimism and sadness. Clinical and pre-clinical studies suggest that stress is the key mediator in the pathophysiology of depression. The extent of depression is so much that, sometimes, suicide is attempted. Antidepressants such as tricyclic antidepressants and selective serotonin reuptake inhibitors provide relief from depression but can have side effects such as blurred vision, nausea, and dizziness. These antidepressants also have withdrawal effects such as crying spells, irritability, and vivid dreams. The review considers the literature on major depression beginning with its types, its brief historical overview, symptoms, cause of depression, treatment, side effects of prolonged treatment, and alternative treatment. The objective of this paper as a pharmacist is to understand the causes of depression and to highlight that, instead of relying on antidepressants which have more of side effects, one should go for psychotherapy, meditation, yoga, cognitive, and behavior therapy.

KEY WORDS: Antidepressant, Depression, Psychotherapy, Stress, Treatment

INTRODUCTION

Historically conceived as either a disease of the mind or brain, depression is second only to hypertension as the most common chronic condition encountered in general medical practice. Not only adults but also 2% of schoolchildren and 5% of teenagers also suffer from depression, and these mostly go unidentified. Depression has been the most common reason why people come to a psychiatrist, although the common man's perception is that all psychological problems are depression.^[1,2] At least 1 in 10 outpatients has major depression, but most cases are unrecognized or inappropriately treated, leading to loss of productivity, functional decline, and increased mortality. Depressive disorders, which are syndromes characterized by the impairment of mood regulation, most commonly include major depression and dysthymia, a disorder characterized by chronic low mood.^[3,4] Appropriate therapy improves the daily functioning and overall health of patients with depression.^[5]

Major depression is defined by depressed mood or loss of interest in nearly all activities (or both) for at least 2 weeks. Current diagnostic assessment of depression is based on descriptions of symptoms,

their presence, and magnitude over time. The study of depression demonstrates the complexity of the nature and course of depression. The survey shows that rates of major depression rose markedly over the past decade.^[6] Projections suggest that, by 2020, depression will become the second leading cause of disease worldwide, as measured by disability-adjusted life years.^[7] Perhaps more compelling, depressive disorders are strong predictors of suicide.^[8]

TYPES OF DEPRESSION

There are different types of depression: (1) Major depression is a combination of symptoms that interfere with the ability to work, sleep, eat, and enjoy once pleasurable activities, (2) dysthymia, a less severe type of depression, and (3) manic depression or bipolar involves cycles of depression and mania. Sometimes, the mood switches are rapid, but most often they are gradual. Mania often affects thinking, judgment, and social behavior in ways that may cause serious problems and embarrassment.^[9,10]

HISTORICAL OVERVIEW

Depression is the most common psychiatric disorder in outpatient clinic population and in subjects seen in various medical and surgical settings. It is also the most common psychiatric disorder in the elderly subjects. Studies also show that life events during

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the period preceding the onset of depression play a major role in depression. Studies on women have also shown the importance of identifying risk factors such as interpersonal conflicts, marital disharmony, and sexual coercion.^[11,12] An experimental survey conducted in Delhi, which included doctors, chemists, public, and medical representatives confirmed the increasing use of antidepressants. The consumers are of various age groups, but 70% belong to the age groups of 15–35 years. These age group people also confirmed the use of antidepressants because of faster results. The survey found that these people are not aware of the side effects and withdrawal effects of antidepressants. We also searched PubMed (National Center for Biotechnology Information, Bethesda, Maryland) using the keywords depression and dysthymia crossed with the search terms public health and older adults and found 51 articles relevant to our study. We limited our review to articles that were published in the past 10 years and that provided definitional or diagnostic criteria for depressive disorders, indicated a specified observation interval and, for the most part, reported on empirical investigations.

SYMPTOMS OF DEPRESSION

The severity of symptoms may vary with individuals,^[13-16] not everyone who is depressed or manic experience every symptom. Some may show a few symptoms and some many. According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition,^[3] the diagnosis of major depression can be made if a patient has five or more of the following symptoms during the same 2-week interval with at least one of the symptoms being either depressed mood or loss of interest or pleasure in activities that were previously pleasurable: (1) Depressed mood, (2) loss of interest or pleasure in previously pleasurable activities, (3) significant weight gain or loss, (4) insomnia or hypersomnia, (5) psychomotor agitation or retardation, (6) fatigue, (7) feelings of worthlessness or inappropriate guilt, (8) impaired concentration, and (9) recurrent thoughts of death.

The existing symptoms are generally viewed as significantly impairing quality of life and performance of the activities of daily living.

Although similar to a diagnosis of depression, a diagnosis of dysthymia requires only two or more of the following symptoms: (1) Poor appetite or overeating, (2) insomnia or hypersomnia, (3) fatigue, (4) low self-esteem, (5) impaired concentration, and (4) feelings of hopelessness.

CAUSES OF DEPRESSION

Genetic

It has long been known that depressive illnesses can run in families. To some extent, depressive illnesses

can be inherited. It does not mean that we are destined to become depressed. When a mother or father has bipolar disorder, their child will have a 25% chance of developing some types of clinical depression. If both the parents have bipolar disorder, the chance of their child also developing bipolar disorder is between 50% and 75%. Brothers and sisters of those with bipolar disorder may be 8–18 times more likely to develop bipolar disorder and 2–10 times more likely to develop major depressive disorder than others with no such siblings.^[17]

Environmental

Environmental causes of depression include events such as stress, traumatic events, and childhood difficulties. Researchers have known for some time that the experiences (events) we have in our lives can and do affect our mental health. These experiences can include past relationships, childhood development, and past crises. The key to the development of clinical depression in some people seems to be how they react to the various environmental causes or factors in their everyday lives.^[17]

Stress

There appears to be a very complex relationship between stressful situations, the reaction of the individual's mind and body to stress, and the development of clinical depression. Examples of positive stress are planning for a wedding, preparing for a new job, and moving to a new city. Both negative and positive stress from environmental events can precede the development of depression.^[17]

Traumatic Events

These types of events can destroy the sense of control and stability in a person's life, often leading to emotional distress.

Childhood Difficulties

One of the most difficult emotional events for a child to endure is the separation or death of a parent before the age of 11.^[17]

Synthetic Chemicals

Studies have shown that air and water pollution alone can cause cancer and other diseases. Synthetic chemicals and pollutants are now being more closely looked at as a link to depression and major depressive episodes.^[17]

Noise Pollution

A person with possible depressive tendencies will become even more susceptible to depression with continual, prolonged exposure to noise pollution.

Electrical Pollution

We are constantly surrounded by radio waves everywhere we go. Unlike other types of environmental causes of depression, electrical pollution cannot be

seen, heard, tasted, or felt. However, it does have a negative effect on our mind and body.

Natural and Catastrophic Disasters

Natural and catastrophic disasters, such as hurricanes, earthquakes, or fires, and even manmade disasters such as bombings and war can push an already susceptible person into a severe major Depression.^[18] The National Center for Environmental Health has found that people, who normally would not be a candidate for depression, can become depressed after major life-altering episodes, such as their house being destroyed in a natural disaster.^[17]

TREATMENT

Mild depression can be effectively treated with either medication or psychotherapy. Moderate-to-severe depression may require an approach combining medication and psychotherapy.^[19]

Drug Treatment

About 50–65% of patients respond to the first antidepressant. UMHS preferred agents are fluoxetine generic and citalopram.^[20] Patients treated with antidepressants should be closely observed for possible worsening of depression or suicidality, especially at the beginning of therapy or when the dose increases or decreases. Monoamine oxidase inhibitors (MAOIs),^[21] tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), and other novel antidepressants affect norepinephrine reuptake or different receptors on the nerve cell.^[22-24] While MAOIs, TCAs, and SSRIs increase serotonin levels, others prevent serotonin from binding to 5-HT_{2A} receptors, suggesting that it is too simplistic to say serotonin is a happy hormone. People who use 5-HT_{2A} antagonists often gain weight. Patients require frequent visits early in treatment to assess the response to intervention, suicidal ideation, side effects, and psychosocial support systems. Continuation therapy (9–12 months after acute symptoms resolve) decreases the incidence of relapse of major depression. Long-term maintenance or lifetime drug therapy should be considered for selected patients based on their history of relapse and other clinical features.^[25,26] Patient education and support are essential. Social stigma and patient's resistance to the diagnosis of depression continue to be a problem.^[27]

Side effects for Prolong Treatment

With long-term use, however, the brain sets to work compensating for the drug-induced changes with a process he calls oppositional tolerance. The idea is that, if the medication artificially jacks up the brain's level of serotonin or norepinephrine, the neurobiology of the system reacts by reducing its own production of the neurotransmitter. If antidepressant use continues

long enough, the brain will create a system to cancel out its effect. There is a possibility that antidepressant use itself could be causing the problem.^[28] In addition, there is evidence that stopping antidepressants in people who no longer respond to them can lead to a reversal of symptoms as the brain compensates once more, this time for the withdrawal of the drugs. They continue to have recurring depression. If antidepressant treatment is restored as a response, these patients can develop a permanently recurring illness. This is tardive dysphoria.^[18,29]

Alternative Treatments for Depression

Alternative treatments can provide relief from depressive symptoms and also help to cope with some of the causes of depression, such as grief, anxiety, changing roles, and even physical pain. Examples of alternative therapies include acupuncture, aromatherapy, biofeedback, chiropractic treatments, guided imagery, herbal remedies, hypnosis, massage therapy, meditation, relaxation, and yoga.^[30] Meditation is sometimes described as an altered state of consciousness. Meditation is usually practiced regularly for at least 10 min each day. While the body is at rest, the mind is cleared by focusing on one thought. Relaxation is marked by decreased muscle tension and respiration, lower blood pressure and heart rate, and improved circulation. The relaxation response summoned by meditation slows down the sympathetic nervous system. In addition, slowing the heart rate and lowering blood pressure leads to decreased sweat production, decreased oxygen consumption, decreased catecholamine production, and decreased cortisol production.^[31] Different forms of exercise can lower stress and relax and reduce depression. Exercise can also increase your energy, balance, and flexibility. In general, exercise is a safe, effective, and easy way to improve your well-being. Music therapy has been shown to be an effective non-drug approach for people of all ages that assist in reducing fear, anxiety, stress, or grief. Music can be thought of as a natural tranquilizer for the humans.

CONCLUSION

Depression is a serious medical condition and a profound public health concern. Although the development of depression is likely due to a combination of factors, understanding the effects, possible triggers, and treatments of the disorder is essential for promoting the well-being of the affected individuals. Major progress in new antidepressant development has been slow, with the notable exception of a group of serotonin SSRIs introduced in the past 5 years. SSRI therapeutic effects are accompanied by serious side effects and overdose hazards.^[31] As a pharmacist, it is our responsibility to educate the people for the same. We conclude that, in our study,

lifestyle changes and increasing stress are the reasons for depression. People depend more and more on antidepressants without knowing their side effects and withdrawal effects. Moreover, as a pharmacist, it is our duty to make them aware of the same and encourage them to rely more on psychotherapy, meditation, yoga, cognitive, and behavior therapy.

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