

DEPRESSION: DISEASE OF MODERN LIFE

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ABSTRACT

In this paper, we review the main types of depression and discuss the reasons for which they occur. The paper is divided into three parts. In the first part, we focus on the phenomenology of depression. We then discuss the various causes that can lead to depression. In particular, we discuss the effects of stress and life events on the development of depression, the side effects of drugs used for the treatment of depression (antidepressants, anti-anxiety drugs, etc.), the effects that can arise from the use of these drugs, and the treatment methods that can be used. In this second part, the paper also discusses the various ways in which the various types of treatment can be applied to solve the various problems that can cause depression. Finally, we conclude the paper by discussing the main side effects that are associated with the use these drugs and the various methods of treatment that can help to cure depression.

INTRODUCTION

Depression is a common problem in the young adult population in the modern world. The number of depressive disorders is estimated to be 1.45 percent of the total burden of illness among young people aged 15 and younger. These disorders are more prevalent among those under age 35 years. depression is the inability to experience pleasure and an inability to feel happiness. It is sometimes referred to as an "incompleteness" or "wastedness". The term was coined by the German psychiatrist, Sigmund Freud in 1913. Depressive disorders can affect the emotions and behaviour, as the depression can affect mood, thinking, emotions, and behaviour. reducing mental health condition that is characterized by low mood, low motivation, loss of interest in daily activities and an overall feeling of being unwell, depressed, or less than the person usually is. The presence of serious negative consequences of having an unfavourable view of yourself, such as: decreased self-esteem, low self-worth, low morale, and decreased willingness and ability to cooperate [1-2].

DEPRESSION IN INDIA

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The following section addresses the common aspects of depression in the Indian society. We will start with a description of what depression is and how and then discuss the prevalence of depression. Depression is the most common mental health illness in developed countries. It is well-known that social network play a pivotal role in the spread of mental illness in society due to their increased contact with patients with mental health problems [ref]. We consider that the mental health of an individual is primarily related to the mental wellness of its social network and stressors in this network. The stressors may come from many sources with no one being isolated or alone. The social network is important to get help from others who have had similar experiences or experienced similar situations. A social network could be formed through the acquaintances, friends, relatives and acquaintances in which people are willing to help others who are in need. Some of the important factors that influence the well-being of an Indian person are the quality of the daily life, mental health, stressors and social support. The factors that contribute to depression are also related to social network. In the next section, we introduce the concepts of social capital and stress. some studies related to depression in Indian society and then focus on depression in young adults. number of people worldwide with depression has nearly doubled from 1990 to 2017, with young adults being affected in the largest numbers. The World Health Organization (WHO) estimates that there are 130 million people suffering from depression worldwide and estimates that 17 million people have suicidal thoughts [3] and at least 1% of the population suffer from depression in every country.. Studies show that about 1/3 of depressed individuals start their episode of depression during their first year of age and that depression is the second leading cause of death in females. Avoidance, anger, frustration, sadness, sadness or disappointment; or other mood disturbances (such as loss of interest in, or inability to experience normal day-to-day activities) Interpersonal. The social/emotional relationships, the ability to maintain relationships, and to maintain feelings of social inclusion and belonging. they can be divided into internal and external factors. The external factors include things like depression itself or suicide attempts or self-injury from depression or injuries from other mental health issues. In suicide attempts, the brain begins to shut down, and the external factor of stress (external and internal.

TYPES OF DEPRESSION

Depressive illness comes in different forms, just as many other illnesses: i. Major depression is manifested by a combination of symptoms that interfere with the ability to work, sleep, eat and enjoy once pleasurable activities. These disabling episodes of depression can occur once, twice or several times in a lifetime. ii. Dysthymia, a less severe type of depression, involves long-term, chronic symptoms that do not disable, but keep you from functioning at "full steam" or from feeling good. Sometimes people with dysthymia also experience major depressive episodes. iii. Manic-depressive or bipolar is not nearly as prevalent as other forms of depressive illnesses. It involves cycles of depression and elation or mania. Sometimes the mood switches are dramatic and rapid, but most often they are gradual. When in the depressed cycle, one can have any or all other the symptoms of a depressive illness. When in the manic cycle, any or all symptoms listed under mania may be experienced. Mania often affects thinking, judgment, and social behaviour in ways that may cause serious problems and embarrassment [4-5].

MAJOR CAUSES OF DEPRESSION

• GENETIC CAUSES

It is difficult to identify the genes associated with depression because mental illness is subject to a polygenic influence and is related to interactions among genetic variants and environmental factors to many factors. Genetic and molecular studies continue to advance our knowledge of the biological basis of depressive disorder. However, the expanded to which findings from neurobiological research can help enhancement of clinical and functional outcomes for depressed persons remains uncertain [6]. Various methodological

methods such as candidate gene analysis, genome-wide association analysis, and genome-wide sequencing have been utilized. Many associations between genes and different phenotypes of depression have been identified. Still, these associations have not been confirmed in replication research in most cases. A little count is only one of the genes is associated with the hazard of existing a type of depression [7]. Although genetics have a role in the cause of depression, identical twin studies showed large variation rates, suggesting nongenetic techniques as well. For example, persistent stress increases the hazard of depression, and environmental stressors also lead to persistent changes in gene expression (Gene Expr.) levels within the brain, leading to decreased neuroplasticity in areas related to disease development [8]. Opportunities to study changes in the state of depression are restricted by the nature of the disorder and the require analyzing cranial cells, which is only available after death. Thus, research should be complemented by using various animal models of depression, which would provide a possible way to assess the correlation of genetic, epigenetic, and environmental effects to the occurrence of various forms of depression and aid existence of the treatment methods. The existence of DNA microchip technology made it available to perform genome-wide association studies (GWASs) to search for hazard factors for the onset of depression. However, GWASs that use large sample sets, involving thousands of cases with various forms of depression, failed to identify any particular locus accountable for the occurrence of the disease. This failure to determine genetic associations and underlying mechanisms indicates that depression is a heterogeneous and multifactorial psychiatric disorder, which suggests that predisposing factors to depression is controlled by the function of several genes and their reaction with each other and various environmental factors. Some studies have reported that genetic differences in mitochondrial DNA may be accompanied with depression [9].

• NON GENETIC CAUSES OF DEPRESSION

Genetics is one of several potential <u>causes of depression</u>. Knowing the possible causes can help you better understand depression, but remember that depression can also develop in the absence of a clear cause and be difficult to pinpoint. Other known factors that contribute to all forms of depression and other mental health conditions include:

- **Brain chemistry:** People with depression sometimes have lower levels of neurotransmitters (brain chemicals that affect mood and well-being). The neurotransmitters they have might be inefficient or function poorly.
- **Changes in brain structure:** The brains of people with depression may be physically and structurally different from the brains of people who are not depressed. [10]
- **Hormones:** Conditions like pregnancy, thyroid disorders, and menopause can affect hormone levels. Low or high levels of hormones may trigger symptoms of depression, particularly in someone who is genetically susceptible.
- **Extreme stress:** Situational depression, or adjustment disorder with depressed mood, may develop in someone who is in a highly stressful situation or experiences trauma. [11]

• SOCIAL CAUSES OF DEPRESSION

Social life is utterly important for the mental health and socialization of children. They need parents to care about them and help to become a part of society. However, parental care cannot cover all the needs of a child. It is important that children communicate within their peer group. A Peer group is a group of people who share the same social status. When a person belongs to a certain peer group, it gives him or her, the feeling of safety, the sense of identity apart from the family circle. When children meet, play or study at school, they enter into relations with their contemporaries learn to live in society. Children communicate with their fellows and form their worldview. This is the way to prepare for adulthood. The mental health and further life of a child depend on the experience acquired at an early age. Foreclosure may be rather dangerous for the child's emotional state and ability to socialize. If a child moves from one area to another, he or she has to enter a new

society and enter into new social relations. For many children it may make it a great difficulty to find new friends. In a new group a child has to adjust to new rules. Frequently such children are subject to stress, they lag behind the fellows in school studies. To sum it up, peer groups play a very important role in the social life and formation of children. In the groups of children of similar social status, they adapt to life in society. If the peer group is changed, it may lead to crucial consequences: such as stress and depression.[12]

Depression and the Nervous System

Depression is a common illness associated with disorders of many parts of the nervous system, including: Like the neurotransmitters are connected. When this disorder is present, levels of serotonin in the body tend to be low compared to other substances such as norepinephrine and dopamine. affect and become dysregulated. As a result, the likelihood of mood disorders increases as a result of failure after several failures. Depression can be both a cause and a consequence of this imbalance. [13]. Synaptic functions are also affected during the depression by the influence of external factors that interact closely with them. Note that astrocyte dysfunction leads to increased excitability and noise, among other factors, and ultimately to abnormal plasticity. It interferes with signal encoding and transmission, resulting in false and exaggerated information processing. As a result of this emotional instability, the person's depression can deepen and become self-perpetuating if interventions are not applied. However, this phenomenon also has another side effect that affects neurons and can cause significant damage. The constant generation of uncontrolled and erroneous signals can adversely affect neuronal health. With enough pressure, it may succumb to damage and become completely nonfunctional [14]. Therefore, emphasize how the advanced stages of depressive disorders are often associated with neuronal loss. This process can cause harm beyond depression and past recovery. It is therefore important that depressed patients seek and receive treatment before their condition worsens excessively.

CONTRIBUTION OF INTERNET IN DEPRESSION

The Internet, social networks, and online streams have become a staple of modern life. The Internet connects far-flung corners of the world at a previously unimagined level. Yet, despite the increasing digitalization and intensifying communication, depression, loneliness, and psychological depression are also on the rise. Understanding how the Internet affects human lives is essential in ascertaining the reasons for the growing loneliness in the intrinsically connected world. First, the Internet causes disproportionate information overload. Any user is exposed to hundreds of advertisements, news stories, videos, and images of people engaging in endless positive activities. The onslaught of content featuring high points of other people's lives forces users to compare their own lives to the ones presented on the screens. Users feel anxiety because they think that they do not enjoy similar benefits or pleasures. As a result, comparison-driven anxiety upsets many people, making them feel that they are missing out. Second, the virtual environment is so absorbing that users forego real-life communication. However, the real danger lies in the strong immersion the Internet creates. The Web always has something for a user to watch, read, or listen to. Considering all the time spent on the Internet's distractions, it is no surprise that people find themselves not having time for actual communication without any gadgets involved. Third, Internet-related activities exist on the basis of diminishing returns. The more time is spent doing something enjoyable, the less pleasure is derived from this activity. In the past, people had far less access to their favorite pastimes involving screens. Therefore, excess information and the weakening ability to appreciate simple things make people lonely and depressed [16].

DRUG TREATMENT FOR DEPRESSION

The therapeutic effects of antidepressants are believed to be caused by their effects on neurotransmitters and neurotransmission. The Monoamine Hypothesis is a biological theory stating that depression is caused by the

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under activity in the brain of monoamines, such as dopamine, serotonin, and norepinephrine. In the 1950s the monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants were accidentally discovered to be effective in the treatment of depression. These findings and other supporting evidence led Joseph Schildkraut to publish his paper called "The Catecholamine Hypothesis of Affective Disorders" in 1965. Schildkraut associated low levels of neurotransmitters with depression. Research into other mental impairments such as schizophrenia also found that too little activity of certain neurotransmitters were connected to these disorders [16,17,18]. The hypothesis has been a major focus of research in the fields like pathophysiology and pharmacotherapy for over 25 years.

Monoamine oxidase inhibitors (MAOIs) block the degradation of the monoamine neurotransmitters serotonin, norepinephrine, and dopamine by inhibiting the enzyme monoamine oxidase, leading to increased concentrations of these neurotransmitters in the brain and an increase in neurotransmission [19].

Tricyclic antidepressants (TCAs) prevent the reuptake of various neurotransmitters, including serotonin, norepinephrine, and to a much less extent, dopamine. Nowadays the most common antidepressants are selective serotonin reuptake inhibitors (SSRIs), which prevent the reuptake of serotonin (thereby increasing the level of active serotonin in synapses of the brain). Other novel antidepressants affect norepinephrine reuptake, or different receptors on the nerve cell[20,21,22].

While MAOIs, TCAs and SSRIs increase serotonin levels, others prevent serotonin from binding to 5-HT2A receptors, suggesting it is too simplistic to say serotonin is a happy hormone. In fact, when the former antidepressants build up in the bloodstream and the serotonin level is increased, it is common for the patient to feel worse for the first weeks of treatment. One explanation of this is that 5-HT2A receptors evolved as a saturation signal (people who use 5-HT2A antagonists often gain weight), telling the animal to stop searching for food, a mate, etc., and to start looking for predators [23]. In a threatening situation it is beneficial for the animal not to feel hungry even if it needs to eat. Stimulation of 5-HT2A receptors will achieve that. But if the threat is long lasting the animal needs to start eating and mating again - the fact that it survived shows that the threat was not as dangerous as the animal felt. So the number of 5-HT2A receptors decreases through a process known as down regulation and the animal goes back to its normal behaviour. This suggests that there are two ways to relieve anxiety in humans with serotonergic drugs: by blocking stimulation of 5-HT2A receptors or by over stimulating them until they decrease via tolerance [24,25].

TREATMENT VIA THERAPY

Psychotherapy — also referred to as talk therapy — is extremely effective on its own, but it's often used in conjunction with other forms of therapy and/or prescription medication to treat depression. Therapy can help you to dive deeply into the possible underlying causes of your depressed mood. It can teach you new skills to help you cope with and alleviate your symptoms.

• Cognitive therapy

Negative thinking contributes to the development and exacerbation of depression symptoms. If you're stuck in a perpetual loop of negative thoughts, it can be incredibly difficult, some would argue virtually impossible, to find a positive attitude and feel good about your day.Cognitive therapy is based on the idea that you *can* control your emotions with your thoughts. During cognitive therapy sessions, you'll learn to identify negative thinking patterns, which are clinically called cognitive distortions. You'll focus on learning how to turn cognitive distortions into positive thoughts and behaviors, which can help to improve your mood.

• Behavioral therapy and behavioral activation (BA)

A core focus of behavioral therapy is a tactic called behavioral activation (BA), which involves engaging in certain activities that will likely enhance well-being. BA focuses on identifying and working towards specific

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goals to enhance your long-term coping strategies. It also focuses on overcoming avoidance behaviors, like not wanting to go out in public. Small steps and positive reinforcement are used to build confidence, positivity, and a sense of accomplishment. It's important to note that BA is not often used on its own, and it's a fairly new therapy technique. Studies are beginning to look deeper at its efficacy on depression — especially in young people — but many experts believe more research needs to be done. That said, research does show promise for BA in treating mild to moderate depression, even when used on its own.

• Cognitive behavioral therapy (CBT)

Cognitive behavioral therapy for depression combines the two well-established therapy techniques — cognitive and behavioral therapies. Since both are known to be effective forms of treatment for depression, they work well together and can be used as a powerful technique called cognitive behavioral therapy, commonly referred to as CBT. This type of psychotherapy focuses on changing both negative thought processes and behaviors that contribute to depression symptoms.

CBT can teach you how to recognize your thought and response patterns so you can learn new ways to think and behave that are more conducive to your overall happiness. This goal-oriented therapy often incorporates homework to further your progress. For example, it can include several self-help strategies, including:

- Daily journaling
- Meditation
- Exercising
- Eating healthy
- Sleeping well
- Identifying your core beliefs

All of these can help you learn how your core beliefs may be affecting you psychologically and causing your depression.

• Psychodynamic therapy

Here's another mental health treatment that falls under psychological therapy. Psychodynamic therapy, also known as psychoanalytic therapy, is a form of therapy that can work to treat depression that results from childhood) conflict. Many these unresolved (typically times, conflicts can even be unconscious. Psychodynamic therapy helps you become aware of and able to identify the emotions that might be difficult for you to acknowledge. It's slightly different from some other approaches to treating depression in that it's often longer-term.

CONCLUSION

Depression is a major contributor to the global burden of disease and affects people from all walks of life. Although little is known about how to prevent and avoid depression, modern healthcare provides effective and well-researched treatments to improve the health and lives of people suffering from it around the world. It is also very important to raise awareness of depression in all its forms. Bipolar disorder and unipolar depression are two seemingly similar mood disorders that can be misdiagnosed and cause even more damage. Collective efforts help to assess, diagnose, and treat these conditions individually and accordingly.

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