DEPRESSION: AN INTEGRATIVE APPROACH

COURSE DESCRIPTION

Depression is one of the most serious and costly healthcare problems facing the United States today. It is one of the most common types of mental disorders. Depression interferes with an individual's daily life and normal functioning and may cause emotional pain for the individual with the disorder as well as family and friends. Although depression is a common but serious mental illness, with treatment depressive symptoms can be alleviated.

The outcome of this course is for the learner to describe the different forms of depressive disorders, examine the pathophysiology, symptoms, and diagnosis of depression as well as explore the conventional and integrative treatment approaches for depression.

LEARNING OBJECTIVES

Upon completion of this course, you will be able to do the following:

1. Differentiate between the different forms of depressive disorders.
2. Examine the pathophysiology of depression.
3. Compare gender and age differences in depression.
4. Describe the relationship between sleep and depression.
5. Identify the symptoms of depression.
6. Describe the criteria for diagnosis of depression.
7. Identify the differential diagnoses of depressive disorders.
8. Examine conventional treatment approaches for depression.
9. Examine integrative treatment approaches for depression.
INTRODUCTION

Affecting more than 20 million adults in the United States, depression has reached epidemic proportions. While medication is often the first avenue of therapy used for those who are depressed, new evidence shows that integrative, holistic methods of treatment may provide effective ways to reduce the symptoms of depression.

Occasionally, everyone feels sad or “blue,” but these feelings usually pass within a couple of days. However, when a person has a depressive disorder, the symptoms can last for weeks, months, or even years. These symptoms interfere with daily life and normal function and cause pain for both the person with the disorder and those who are involved with him or her. Depression affects people worldwide and occurs in all age groups, social classes, and cultures.

DIFFERENT FORMS OF DEPRESSIVE DISORDERS

There are several forms of depressive disorder, with major depressive disorder and dysthymic disorder being the most common (National Institute of Mental Health [NIMH], 2017):

- **Major depressive disorder**, also known as major depression or unipolar depression, is characterized by a combination of symptoms that interfere with an individual’s ability to work, sleep, study, eat, and enjoy activities that were once pleasurable. A major depressive episode may only occur once in an individual’s lifetime, or it can recur throughout the individual’s life.

- **Dysthymic disorder** is characterized by long-term (2 years or more) depression but with less severe symptoms than major depressive disorder. Dysthymic disorder may not disable a person but can prevent the
individual from functioning normally or feeling well. Individuals may also experience one or more episodes of major depression during their life.

Some forms of depressive disorder may have slightly different characteristics than those described above, or they may develop under different circumstances. There are differing professional opinions about how to characterize and define these forms of depression. They include the following (NIMH, 2017):

- **Psychotic depression** occurs when a severe depressive disorder is accompanied by some form of psychosis (e.g., a break with reality, hallucinations, and delusions).

- **Postpartum depression** is diagnosed if a new mother develops a major depressive episode within 1 month after delivery. Approximately 10% to 15% of women experience postpartum depression after giving birth.

- **Seasonal affective disorder (SAD)** is characterized by the onset of a depressive episode during the winter months, when there is less exposure to sunlight. This type of depression usually subsides during spring and summer. SAD may be effectively treated with light therapy, but approximately half of those with SAD do not respond to light therapy alone and need antidepressant medication and psychotherapy to reduce symptoms.

**PATHOPHYSIOLOGY OF DEPRESSION**

While the underlying pathophysiology of depression has not been clearly defined, recent findings have increased the understanding of this disorder. Despite increased knowledge of its pathophysiology and treatment, depression remains highly prevalent, accounting for more disability than any other disorder.
worldwide. Depression is a significant risk factor for suicide, especially in adolescents, young adults, and the elderly (Nemeroff, 2008).

Current research suggests depression results from a disturbance in central nervous system neurotransmitters such as serotonin, norepinephrine, and dopamine.

Brain imaging technologies, such as magnetic resonance imaging (MRI), have shown that the brains of individuals with depression look different than those of individuals without depression. The parts of the brain responsible for regulating mood, thought, sleep, appetite, and behavior appear to function abnormally in the depressed individual. However, these images do not reveal why the depression has occurred (NIMH, 2017).

The cause of depression is likely a combination of genetic, biochemical, environmental, and psychological factors. Depression tends to run in families. However, depression may occur in individuals without a family history of depression. Genetic research indicates that the risk for depression results from the influence of multiple genes acting together with environmental and other factors (NIMH, 2017).

GENDER, AGE, AND DEPRESSION

The incidence of depression varies with gender and age.

Women and Depression

Depression is more common among women than among men. Higher rates of depression may be linked to biological, life cycle, hormonal, and psychosocial factors unique to women. Examples of the types of depression unique to women
include postpartum depression, depression associated with premenstrual syndrome (PMS), and depression associated with menopause. Research demonstrates that hormones directly affect brain chemistry that controls emotions and mood and may play a powerful role in the incidence of depression among women (NIMH, 2017; National Sleep Foundation, 2017).

**Men and Depression**

Men often experience depression differently than women. Men may also have different ways of coping with the symptoms of depression than women. For example, men may acknowledge having fatigue, irritability, loss of interest in activities that were once pleasurable, and sleep disturbances. Women are more likely to admit to feelings of sadness, worthlessness, and/or guilt (NIMH, 2017).

Men are more likely than women to use alcohol when they are depressed, and may become frustrated, discouraged, irritable, angry, and sometimes abusive.
Although more women attempt suicide when depressed, many more depressed men die by suicide in the United States (NIMH, 2017).

Older Adults and Depression

Depression is not a normal part of aging. Studies show that most older adults feel satisfied with their lives, despite increased physical difficulties. However, depression may be overlooked in older adults because older adults may show different, less obvious symptoms of depression than younger adults, and may be less inclined to experience or acknowledge feelings of sadness or grief than younger adults.

In the aging adult, medical conditions such as heart disease, stroke, or cancer may cause depressive symptoms. In addition, medications for these conditions may have side effects that contribute to depression. The majority of older adults experience improvement or relief from symptoms when they receive treatment with an antidepressant, psychotherapy, or a combination of both (NIMH, 2017).

Children, Adolescents, and Depression

Research has shown that childhood depression often persists, recurs, and continues into adulthood, especially if untreated. Childhood depression also tends to be a predictor of more severe depression in adulthood. The incidence of major depression in either parent can interfere with the quality of parenting and increase the risk of their children developing mental, behavioral, and social problems (The National Academies Press, 2009).
Children with depression may pretend to be sick, refuse to go to school, cling to a parent, or worry that a parent may die. Adolescents who are depressed may sulk, get into trouble at school, be negative and irritable, and feel misunderstood. These signs are often thought to be normal mood swings since adolescents who do not suffer from depression can exhibit similar behaviors; therefore, it may be difficult to diagnose children and adolescents with depression. Depression in adolescents frequently coexists with other disorders such as anxiety, disruptive behaviors, eating disorders, or substance abuse (NIMH, 2017).

SLEEP AND DEPRESSION

The relationship between sleep and depressive disorders is complicated. Depression may cause sleep problems and sleep problems may contribute to depressive disorders. For example, symptoms of depression may occur before the onset of sleep problems for some individuals. For other individuals sleep problems appear first. Sleep problems are also associated with more severe depressive disorders (National Sleep Foundation, 2017). The cumulative long-term effects of sleep loss and sleep disorders have been associated with a wide range of deleterious health consequences including an increased risk of hypertension, diabetes, obesity, depression, heart attack, and stroke (The National Academies Press, 2006).

Insomnia is common among depressed clients. Individuals with insomnia have a 10-fold risk of developing depression compared with those who sleep well. Depressed individuals may suffer from a range of insomnia symptoms, including difficulty falling asleep (sleep onset insomnia), difficulty staying asleep (sleep maintenance insomnia), and daytime sleepiness. Studies suggest that the risk of developing depression is highest among people with both sleep onset and sleep maintenance insomnia (Taylor, Lichstein, Durrence, Reidel, & Bush, 2005).
Obstructive sleep apnea is also linked with depression. Those with depression are five times more likely to suffer from sleep-disordered breathing, including sleep apnea. However, individuals treated with continuous positive airway pressure (CPAP) may find this improves their symptoms of depression.

Treatment for depression may be complicated by sleep disorders. For example, individuals with both obstructive sleep apnea and depression should avoid taking sedating antidepressant medications because of their potential to suppress breathing, worsen obstructive sleep apnea, and increase the risk of death (National Sleep Foundation, 2017).

SYMPTOMS OF DEPRESSION

Depression exists on a continuum ranging from “the blues,” which usually resolve spontaneously, to normal grief following a loss, to a more persistent and serious depression (Northrup, 2006). The frequency, severity, and duration of symptoms will vary depending on the individual and his or her particular depressive disorder. Symptoms of depression can include the following (NIMH, 2017; Weil, 2014; World Health Organization [WHO], 2017):

- Persistent sad or anxious feelings
- Feelings of hopelessness and/or pessimism
- Feelings of guilt, worthlessness, and/or helplessness
- Irritability or restlessness
- Loss of interest in activities or hobbies once experienced as pleasurable
- Fatigue and decreased energy
- Difficulty concentrating, remembering details, and making decisions
- Insomnia, early morning wakefulness, or excessive sleeping
DIAGNOSIS OF DEPRESSION

The diagnosis of depression is made after a thorough physical, emotional, social, and spiritual assessment. Finding a qualified, compassionate healthcare provider who will support the individual and his or her family during the assessment phase is critical to the successful diagnosis and treatment of the individual struggling with depression.

The DSM-5 (American Psychiatric Association, 2013) diagnostic criteria for a major depressive episode include at least five of the following, during the same 2-week period, representing a change from the way the individual previously functioned. The first and/or second criteria listed below must be included in the five criteria:

1. Depressed mood
2. Diminished interest or pleasure
3. Significant weight loss or gain
4. Insomnia or hypersomnia
5. Psychomotor agitation or retardation
6. Fatigue or loss of energy
7. Feelings of worthlessness
8. Diminished ability to think or concentrate; indecisiveness
9. Recurrent thoughts of death, suicidal ideation, suicide attempt, or a specific plan for suicide
Depression Screening Tests

Depression screening tests can be used to screen for depression and bipolar disorder. The most widely used is the Hamilton Depression Rating Scale (HDRS). It is important to understand that the results obtained from the use of any depression rating scales are imperfect in any population, especially the geriatric population. However, they do provide the healthcare professional with a tool to assess the individual and a way to include the results of this tool along with other clinical findings to reach a diagnosis that is accurate and appropriate.

No physical findings specifically indicate a major depressive disorder; instead, the diagnosis is based on the individual’s history and the Mental Status Examination (MSE). The MSE includes subjective categories based on the patient’s appearance, attitude toward the examiner, mood, speech, thought process, thought content, insight, judgment, impulsivity, and reliability. A complete mental health evaluation should always include a physical evaluation to rule out organic conditions that might imitate or contribute to a depressive disorder (Brannon, 2016). Organic (medical) conditions that can imitate or contribute to depressive disorders are discussed in the next section.

Differential Diagnoses

Depression often coexists with other illnesses. These illnesses may precede, cause, and/or be a consequence of depression. These coexisting illnesses need to be diagnosed and treated along with depression for the individual to have the best chance for optimal health.

Symptoms of depression can mirror other diseases. For an effective diagnosis and treatment plan, these symptoms must be differentiated from those of other diseases and conditions such as the following (Brannon, 2016; Halverson, 2016; NIMH, 2017):

- Anxiety disorders, such as post-traumatic stress disorder (PTSD), obsessive-compulsive disorder, panic disorder, social phobia, and generalized anxiety disorder
- Alzheimer’s disease and other degenerative and vascular dementias that can produce affective symptoms similar to those of depression
- Inflammatory conditions, such as systemic lupus erythematosus (SLE), that can produce a wide range of neuropsychiatric signs and symptoms similar to depression
- Sleep disorders, such as obstructive sleep apnea, that can cause significant medical and psychiatric symptoms
• Infectious processes, such as syphilis, Lyme disease, and HIV encephalopathy

• Pharmacologic agents (especially beta-blockers, reserpine, methyldopa, and calcium channel blockers), steroids; medications that affect sex hormones; beta-blockers; sedatives; muscles relaxants; appetite suppressants; and chemotherapy agents

• Endocrinologic disorders involving the hypothalamic-pituitary-adrenal axis or thyroid that may produce changes in mood (e.g., Addison’s disease, Cushing’s disease, hyperthyroidism, hypothyroidism, prolactinomas, and hyperparathyroidism)

• Substance abuse, involving drugs such as alcohol, cocaine, amphetamines, marijuana, sedatives, and narcotics

• Eating disorders, such as bulimia and anorexia nervosa

• Personality disorders (e.g., borderline personality disorder)

Determining the patient's appropriate diagnosis and treatment plan is based on all information gathered from the patient’s interview, MSE, psychological testing, a thorough review of an individual's medical history, and current laboratory reports (Brannon, 2016).
CONVENTIONAL TREATMENT APPROACHES TO DEPRESSION

The earlier treatment for depression begins, the more effective it is and the less likely the depression will recur. Once diagnosed, the most common conventional treatment approaches for depression are medication and psychotherapy.

**Medication**

The primary class of medications used to treat depression is antidepressants. Antidepressants help to normalize neurotransmitters (naturally occurring brain chemicals), mainly serotonin, norepinephrine, and dopamine. These three chemicals are involved in regulating mood. However, the exact mechanisms of action are unclear.

There are four main types of antidepressants (Mayo Clinic, 2016; NIMH, 2017; WebMD, 2012):

1. **Selective serotonin reuptake inhibitors (SSRIs)**
   The most utilized types of antidepressant medications are called selective serotonin reuptake inhibitors (SSRIs). SSRIs include fluoxetine (Prozac), citalopram (Celexa), and sertraline (Zoloft), among other types. SSRIs block the reabsorption (reuptake) of the neurotransmitter serotonin in the brain. Changing the balance of serotonin seems to help brain cells send and receive chemical messages, which in turn boosts mood. SSRIs are called selective because they seem to primarily affect serotonin, not other neurotransmitters.

2. **Serotonin and norepinephrine reuptake inhibitors (SNRIs)**
   Serotonin and norepinephrine reuptake inhibitors (SNRIs) are similar to SSRIs and include venlafaxine (Effexor) and duloxetine (Cymbalta). SSRIs...
and SNRIs are used more often than the older classes of antidepressants such as tricyclics (named for their chemical structure) and monoamine oxidase inhibitors (MAOIs) because they tend to have fewer side effects.

3. **Monoamine oxidase inhibitors (MAOIs)**

Monoamine oxidase inhibitors include isocarboxazid (Marplan), phenelzine (Nardil), selegiline (Emsam, Eldepryl, Zelapar), and tranylcypromine (Parnate). When depression occurs, there may be a decrease in the amount of these monoamines released from nerve cells in the brain. Monoamines are broken down by an enzyme called monoamine oxidase. MAOIs prevent monoamine oxidase from breaking down the monoamines. This results in an increased amount of active monoamines in the brain.

By increasing the amount of monoamines in the brain, the imbalance of chemicals, thought to be important in causing depression, is altered. This helps relieve the symptoms of depression. Individuals taking MAIOs must avoid certain foods that contain high levels of the chemical tyramine, which is found in many cheeses, wines, and pickles, and in some medications, including decongestants. MAOIs interact with tyramine in a way that may cause a sharp increase in blood pressure, which could lead to a stroke.

4. **Tricyclics**

Tricyclic antidepressants ease depression by blocking the absorption (reuptake) of the neurotransmitters serotonin and norepinephrine, making more of these chemicals available in the brain. Two of the most commonly used tricyclics used are amitriptyline (Elavil) and imipramine (Tofranil).

The most common side effects of antidepressants may include the following (NIMH, 2017):
- Headache is usually temporary and will subside over time.
- Nausea is temporary and usually short lived.
- Insomnia and nervousness (trouble falling asleep or waking often during the night) may occur during the first few weeks but often subsides over time or if the dose is reduced.
- Agitation (feeling jittery).
- Sexual problems for both men and women, including reduced sex drive, erectile dysfunction, delayed ejaculation, or the inability to have an orgasm.

In 2005, the Food and Drug Administration (FDA) adopted a “black box” warning label (the most serious type of warning on prescription drug labeling) for all antidepressant medications. This warning alerts the public about the potential increased risk of suicidal thinking or attempts in children and adolescents taking antidepressants. In 2007, the FDA proposed that makers of all antidepressants extend the warning to include young adults up through age 24 (NIMH, 2017).
Over-the-Counter Medications and Depression

Some over-the-counter (OTC) and prescription medications can aggravate symptoms of depression. These include antihistamines, tranquilizers, sleeping pills, and narcotics. They should be used carefully and under the supervision of a trained healthcare professional.

Psychotherapy

Psychotherapy offers individuals the opportunity to identify the psychological, behavioral, interpersonal, and situational factors that may be contributing to their depression.

For mild to moderate depression, psychotherapy may be an excellent treatment option.

There are two types of psychotherapy that are often helpful for depression (NIMH, 2017):

1. Cognitive-behavioral therapy (CBT) and
2. Interpersonal therapy (IPT).

Treatment sessions for either type can range from 10 to 20 weeks or longer, depending on the needs of the individual.

CBT teaches new ways of thinking and behaving, which helps individuals change negative ways of thinking and behaving that may contribute to their depression. IPT focuses on helping individuals understand and work through troubled relationships that may contribute to their depression or worsen it (NIMH, 2017).
Psychotherapists can work with depressed individuals to (American Psychological Association [APA], 2017a):

- Identify life issues that contribute to their depression and help them understand which aspects of those issues they may be able to solve or improve, help them identify options for the future, and help them to set realistic goals.

- Identify negative or distorted thinking patterns that contribute to feelings of hopelessness and helplessness that accompany depression. For example, depressed individuals may tend to overgeneralize, that is, to think of circumstances in terms of "always" or "never." They may also interpret an interaction in a more personal way than was originally intended. A trained and competent therapist can help nurture a more positive outlook on life.

- Examine other learned thoughts and behaviors that create problems and contribute to depression. For example, therapists can help depressed individuals understand and improve patterns of interacting with other people that contribute to their depression.

- Help individuals regain a sense of control and pleasure in life. Psychotherapy helps people see choices as well as gradually incorporate enjoyable, fulfilling activities back into their lives.

Having one episode of depression increases the risk of having another depressive episode. Evidence suggests that ongoing psychotherapy may lessen the chance of future episodes or reduce their intensity if they do occur. Through therapy, individuals can learn skills to avoid unnecessary suffering from later bouts of depression (APA, 2017a).

**INTEGRATIVE TREATMENT APPROACHES TO DEPRESSION**

Prescription antidepressants may provide some benefit for individuals with mild or moderate depression but they do help individuals with very severe depression (Weil, 2014). For the treatment of mild to moderate depression, integrative approaches may be an excellent treatment option. Medications should never be reduced or stopped without consulting a physician.

Many nonconventional treatment modalities for depressive disorders have been validated by consistent positive results from controlled, double-blind studies as well as systematic reviews or meta-analyses. Combining conventional antidepressants with specific nonconventional treatments accelerates the rate of treatment response and can improve overall outcomes. Examples of types of treatment modalities that can benefit the individual with mild to moderate depression include the following (APA, 2017a; Delaney, Barrere, & Helming,
Traditional Chinese Medicine

According to Chinese medical theory, a depressed mood is attributed to an imbalance or blockage in one or more of the internal organs and the energy pathways that pertain to them. Traditional Chinese medicine (TCM) treatments (such as acupuncture, herbal medicine, and qi gong) for depression focus on treating the disturbances and energy blocks in the body. Mild to moderate depression responds well to TCM treatments, which may be combined with conventional medication or used alone under the proper supervision of a well-trained practitioner. With severe depression, conventional therapy is more effective than TCM. In cases of severe depression, TCM modalities may be used to enhance conventional therapy (Lake, 2007).
• **Acupuncture** has an immediate effect on depression and may be one of the most effective treatments available, especially when combined with psychotherapy or medication therapy. This modality of TCM has been recognized by the World Health Organization (WHO) as an effective treatment for mild to moderate depression. TCM practitioners believe that good health depends on the balance of yin and yang forces, which circulate along channels or energy pathways in the body. Acupuncture corrects imbalances in these energy pathways (Maryland University of Integrative Medicine, 2013; WHO, 2017).

• **Herbal medicine** is used in TCM for depression, but patients taking conventional antidepressants must be monitored for potential side effects and must not stop taking their conventional medications to start herbal therapy. An example of a Chinese herbal formula used in China for 600 years to treat depression is *Mood Smooth* (*Jis Wei Xiao Yao Wan*). The key concerns regarding herbs and herbalism include limitations of current research, lack of regulation, lack of standardization among herbs and herb preparation, and the potential toxicity related to collection, harvesting, preparation, and administration (Liu & Gong, 2017).

• **Qi gong** involves slow, gentle, repetitive movements that induce relaxation while encouraging movement. Qi gong may reduce the symptoms of depression by increasing endorphins (released during other physical exercise) and result in generally improved feelings of emotional well-being (Lake, 2007).

While a combination of acupuncture, herbal medicine, and qi gong may produce the best outcome for the treatment of mild depression, more qualified, randomized controlled clinical trials are warranted to assure the efficacy of traditional Chinese medicine for individuals suffering from this disorder (Zhao, Wan & Chen, 2009).
Ayurvedic Herbs

Several Ayurvedic herbs and compound herbal formulas may be beneficial for mild to moderate depression; however, individuals taking Ayurvedic herbs should be carefully supervised by an Ayurvedic physician. Most Ayurvedic herbal treatments for depression are compounded from several herbs (*Withania somnifera, Mucuna pruriens, Acorus calamus, Convolvulus pluricaulis*, and *Celestrus panniculatus*). Serious side effects have not been reported in trials of Ayurvedic herbs used in the treatment of depression (Lake, 2007).

Physical Activity

Physical activity is an effective, inexpensive treatment for depression and is available to virtually everyone. Exercise decreases the risk of coronary heart disease, stroke, various types of cancer, and lowers blood pressure, improves metabolism, reduces problems related to diabetes, assists in the maintenance of bone density, and improves immune system function. Exercise is also beneficial for depression. Based on a large meta-analysis (summarizing 80 studies of exercise and depression), a research team found the following (APA, 2017b):

- Exercise acted as a beneficial antidepressant both immediately and over the long term.
- Although exercise decreased symptoms of depression among all populations studied, it was most effective in decreasing depression for those most physically unhealthy at the start of the exercise program.
- While all ages showed a decrease in rates of depression, older adults demonstrated the greatest decrease.
- Exercise was equally effective for reducing depression in both men and women.
- The most frequent forms of exercise researched were walking and jogging, but all modes of exercise examined (anaerobic as well as aerobic) were effective in reducing depression to some degree.

- The greater the length of the exercise program and the greater the total number of exercise sessions, the greater the decrease in symptoms of depression.

- The most powerful antidepressant effect occurred with the combination of exercise and psychotherapy.

Research regarding the combination of exercise and medication needs to be more fully researched. However, preliminary studies are promising (APA, 2017a).

**Bright Light Therapy**

Daily exposure to sunlight for 30 to 40 minutes helps regulate an individual's circadian rhythms, those natural body rhythms that govern sleep, energy, and hormone levels. The best-known benefit of sunlight is its ability to boost the body's vitamin D levels. Individuals who suffer from depression often experience a deficiency of vitamin D.

Regular daily exposure to high-density negative ions is an effective treatment for seasonal affective disorder (SAD). Regular bright light exposure for 30 to 40 minutes a day is an effective therapy for mildly and moderately depressed mood. Bright artificial and natural light are equally effective. Exercising under bright light is more effective in treating depression than exercise or bright light alone. Evening bright light exposure, however, may cause insomnia and increase the symptoms of depression (Lake, 2007).
Dietary Modifications

Good nutrition is an important factor in reducing depression. It is important for the brain to receive balanced levels of serotonin, especially fatty acids, and glucose. While there is no “depression diet,” diets low in refined sugar and caffeine and rich in vitamins B and D as well as omega-3 fatty acids are associated with lower rates of depression and improved mood. Vitamins work as enzyme cofactors and facilitate the production of the neurotransmitters serotonin, dopamine, and norepinephrine, whose deficiencies have been shown to be associated with depressed mood (Lake, 2007; Northrup, 2006).

A holistic approach to diet and nutrition consists of self-care, healthy foods, and a moderate caloric intake. Nutritional intake should be varied and include wholesome, high quality, organic foods of varying tastes, textures, colors, and temperatures.

Omega-3 Fatty Acids

Recent studies suggest that omega-3 fatty acids found in fish oil may be helpful in maintaining a health mind and addressing mild depression. Main sources of omega-3 fatty acids include salmon, halibut, and other deep-sea fish as well as flaxseed oil. The mechanism of action may be similar to the conventional antidepressants including tricyclics and SSRIs. Beneficial changes in the brain may manifest as improved mood. Combining omega-3 fatty acids with conventional antidepressants may improve and/or accelerate the individual's response rate to the antidepressant medications (Lake, 2007).

Vitamin and Mineral Supplements

Specific vitamin and mineral supplements (such as folate, thiamine, and vitamins B6, B12, E, and C) are an effective adjunctive treatment for depression.
Supplementation with vitamin D may be effective for seasonal affective disorder. For treating mild depression, the B vitamins (especially folic acid, vitamin B6, and B12) may be helpful. The B vitamins can also increase the efficacy of prescription antidepressants and may play a role in producing brain chemicals that positively affect mood and other brain functions (Lake, 2007; Mayo Clinic, 2016; Northrup, 2006).

Vitamin B12 is abundant in animal products such as fish, meat, poultry, eggs, and milk. Low levels of B12 and other B vitamins have been linked to depression. Older adults, vegetarians, and individuals with digestive disorders such as celiac disease and Crohn’s disease may have difficulty absorbing sufficient quantities of vitamin B12. Taking a daily supplement that includes B12 may help individuals receive the nutrients their body needs (Lake, 2007; Mayo Clinic, 2016).

**Mindfulness Meditation**

Mindfulness meditation involves the cultivation of awareness and a focused attention on the present moment. It results in a relaxed state of mind in which individuals are conscious of their experience, including sensations, thoughts and feelings, breathing, and surroundings, all with an attitude of nonresistance, peace, and acceptance. Mindfulness engenders faith in the perfection of the moment and allows each new experience to be felt completely, without the reactive, self-critical, controlling mind (Alternative depression therapies.com, 2016; Delaney, Barrere, & Helming, 2011).

Mindfulness meditation is used most often to reduce stress or anxiety rather than to treat depression. However, because anxiety often occurs with depression, meditation can help elevate an individual’s mood and reduce anxiety as well as depressive symptoms.
Yoga

Yoga may be beneficial in treating individuals with both moderate and severe depressed mood. Yogic breathing helps balance the parasympathetic and the sympathetic nervous systems. Many styles of yoga may be beneficial in reducing depression including Hatha yoga, Omkar meditation, and iyengar yoga (Lake, 2007).

Depressed people seldom laugh, and laughing people are seldom depressed. Laughter yoga has helped thousands to overcome severe depression all over the world; it uses laughter as a form of physical exercise rather than as cognitive humor. In one study on the effect of Laughter yoga on decreasing depression and increasing life satisfaction, 70 elderly women in Tehran who were suffering from depression were randomly assigned to one of three groups: laughter therapy, exercise therapy, or a control group. They also completed a Life Satisfaction Scale at the beginning and end of study. Those in the Laughter yoga and exercise groups showed a statistically significant decrease in depression compared to the control group (Laughter Yoga International, 2017).

Healing Touch (HT) and Therapeutic Touch (TT)

Regular use of Healing Touch (HT) and Therapeutic Touch (TT) may reduce the severity of a depressed mood (Lake, 2007). Practitioners of these energy healing methods intuitively sense energetic imbalances in the body and direct healing energy to specific areas to correct imbalances.

These healing techniques foster peace of mind, promote a relaxed state of mental alertness, and reduce anxiety and symptoms of depression. In addition, many people do not receive enough positive physical touch, and this lack of
touch can lead to a sense of isolation and depression. By receiving touch, these modalities may help improve or reduce the symptoms of depression (Trivieri & Anderson, 2002).

**Pet Therapy**

Pet therapy, also known as animal-assisted therapy, is recognized by the National Institute of Mental Health as an effective form of psychotherapy for treating depression and other mood disorders. How does a cat, a dog, or other animal help an individual cope with depression? Pets can help promote a sense of emotional connectedness and overall well-being. Interactions with pets (even if they are not your pets) can reduce anxiety, blood pressure, and heart rate, which reduces feelings of depression (Thompson, 2011).

The Delta Society and the American Humane Association offer animal-assisted therapy programs for people with depression.
Spiritual and Religious Practices

Today, more than ever before, there is wider acceptance by health care providers of the relationship between spirituality, religious beliefs and practices, and mental and emotional health. Religion and spirituality play a pivotal role in decreasing depression by fostering positive beliefs and behaviors and increasing social interaction while lessening the impact of negative situations. Spirituality appears to have an inverse relationship with depression and anxiety (Young & Koopsen, 2011).

Spiritual and religious beliefs are associated with reduced risk of depressed mood. Individuals who have strong religious practices report fewer, and less severe, symptoms of depressed mood. In a review of the literature, over 80 studies examined the association between religious affiliation and involvement with the occurrence of depressive symptoms. Researchers found that some forms of religious involvement might have a protective effect against the incidence and persistence of depressive symptoms. Regular support groups with spiritual-religious themes have also been found to reduce the severity of depressed mood and increase emotional well-being of those who participate (McCullough & Larson, 1999; Lake, 2007).

SUMMARY

Depression is a serious medical illness that affects more than 20 million people in the United States. The exact cause of depression is not known. Many researchers believe it is caused by chemical imbalances in the brain, which may be hereditary or caused by events in an individual's life. There are effective traditional treatments for depression that include medication and psychotherapy
as well as effective integrative treatments for depression that include Traditional Chinese medicine, Ayurvedic herbs, physical activity, bright light therapy, dietary modifications, mindfulness meditation, yoga, Healing Touch (HT), Therapeutic Touch (TT), pet therapy, and spiritual and religious practices. All treatment options should be undertaken with the support of a competent, compassionate, and caring healthcare professional.
REFERENCES


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