

A Literature Review:
The Many Causes and Treatments
of Depression

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Abstract

Objective: The objective of this paper is to review the literature on the various theories and causes of depression. Furthermore, the paper will review the traditional and alternative therapies that are available for the treatment of depression.

Data Source: A search of the MEDLINE and PUBMED Bibliographic database using key words was performed to find relevant journal articles. All articles were obtained through Logan College Library and Washington University Library. A review was conducted on over 12 textbooks from Logan College Library. Additional information was obtained by using general Internet searches.

Conclusion: Following this review, there is an understanding that despite the “medical model” of one cause, one cure for depression, it must be realized numerous factors can play a role in the cause of depression. As well, for every cause of depression there is an alternative or natural treatment that can be just as or more effective than the prescription antidepressants traditionally used and with virtually none of the side effects.

Key Indexing Terms: Depression, Unipolar Depression, Dysthymia, Antidepressants, And Alternative Therapy

Introduction

Depression has become a disease of epidemic proportions in America. Over twenty five million people will suffer from true clinical depression each year.

Depression knows no boundaries; it effects every age and race, however it tends to be more prevalent in females than males at a rate of two to one. One in four people are or will be affected by it in their lifetime.(1)

What is depression? There is wide spectrum of clinical depressions, however, this paper will limit its review to unipolar depression and dysthymia. As defined by the Psychiatric Association in its *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), unipolar depression is based upon the following eight primary criteria. The presence of five of these eight symptoms for at least one months time definitely indicates clinical depression, while four symptoms out of the eight indicates a high probability of depression.

- Poor appetite with weight loss or increased appetite with weight gain
- Insomnia or hypersomnia
- Physical hyperactivity or inactivity
- Loss of interest in usual activities or decrease in sexual drive
- Loss of energy and feelings of fatigue
- Feelings of worthlessness, self-reproach, or inappropriate guilt
- Diminished ability to think or concentrate
- Recurrent thoughts of death or suicide

Like unipolar depression, dysthymia is diagnosed according to the DSM-IV criteria. In order to be officially diagnosed as dysthymic, a patient must be depressed most of the time for at least two years and have at least three of the following symptoms: (2)

- Low self-esteem or lack of self-confidence
- Pessimism, hopelessness, or despair
- Lack of interest in ordinary pleasures and activities
- Withdrawal from social activities
- Fatigue or lethargy
- Guilt or ruminating about the past
- Irritability or excessive anger
- Lessened productivity
- Difficulty concentrating or making decisions

Discussion:

Traditional Approach to Depression

The modern medical approach to treating depression focuses on covering up the symptoms with drugs and not uncovering the underlying cause of the disease. The conventional medical perspective focuses solely on the imbalances in the brain chemistry as the cause of depression.(3) Unfortunately, because of this belief many patients who are seeking help for their low moods from their primary care physicians are automatically labeled as being depressed, written a

prescription for an anti-depressant and sent on their way, often without ever performing a complete history or physical and laboratory workup.(4)

So what is the physicians' drug of choice in treating depressed patients? Prozac. Prozac was launched in the United States in 1987 after fifteen years of clinical research. It has quickly become the most widely prescribed and most profitable antidepressant drug in history. However, Prozac is perhaps the most controversial drug ever marketed. Detailed clinical studies indicate that roughly one third of patients with depression will either not be helped by Prozac and other similar anti-depressant drugs or will be unable to tolerate the side effects. So why is Prozac so popular? Today, drug companies heavily advertise to the public and physicians alike. The giant pharmaceutical companies engage in major media campaigns to raise public awareness about depression and the drugs they produce. As a result many people who would never have considered themselves depressed are now taking drugs such as Prozac. The drugs most prescribed are those most heavily advertised. However, many of those advertisements are misleading. A report from the Annals of Internal Medicine indicate the ads reviewed were not balanced with efficacy versus side effects and contraindications, as well headlines were often misleading in regards to the effectiveness of the medication, and almost half of the ads reviewed would lead to improper prescribing if the physician had no other information. This is a serious problem since advertisements are a main source of education for physicians regarding prescription drugs.

While antidepressants are successful in alleviating depression in many cases, approximately 60-70%, they are also associated with many side effects. While Prozac and other similar anti-depressant are better tolerated than their predecessors, the tricyclic antidepressants, at least 17% of all Prozac users will discontinue taking the antidepressant because of intolerable side effects. Clinical trials have demonstrated that 21% of patients taking Prozac and similar drugs experience nausea; 20% headaches; 15% anxiety and nervousness; 14% insomnia; 12% drowsiness; 12% diarrhea; 9% dry mouth; 9% loss of appetite; 8% sweating and tremor; and 3% rash. Prozac and similar anti-depressants inhibit sexual function. In studies where sexual side effects were thoroughly evaluated, 34% of men and women taking Prozac reported loss of libido or diminished sexual response. One of the most serious side effects reported by patients on Prozac is a condition called akathisia, a drug-induced state of agitation, and in some people, it may induce violence, destructive outbursts and even suicide.(5)

Well over one million prescriptions are being written for patients each month, with the majority of patients on anti-depressants being women between the ages of twenty-five and fifty. It is estimated that depression will cost our economy \$44 billion and an annual loss of 200 million work hours.(3) With all the risks and costs and controversy involved with anti-depressants, there must be a better approach to depression than simply prescribing a drug like Prozac.

A Different Look At Depression

Where does the answer lie for people suffering from depression and unable or unwilling to take antidepressant drugs? The key to this problem is in understanding there are many underlying causes of depression, not just the traditional or medical approach. It is important for health care providers and patients alike to become aware of the variety of natural approaches available for its treatment. This paper will review the two most common but overlooked causes of depression and the alternative treatments available.

Psychological/Emotional Cause: This category of depression often has emotional or psychological roots, often as a result of the loss of a loved one, a job, a change of circumstances, or divorce. Depression that accompanies the grieving process following a significant loss is a natural phenomenon that we all experience at one time or another. In many cases this type of depression will run its course without professional intervention, or a need to classify as a “mental illness”. However, more severe and enduring forms of emotional depression may require psychological intervention or counseling to help guide one through the process of emotional healing.(3)

Biochemical/Physiological Cause: Contrary to the medical model of depression, numerous physiological factors can induce depression. These include,

diet, stress, sleep, exercise, food allergies, nutritional deficiencies, and hormonal imbalances. As well, depression may be a symptom of other underlying health conditions such as hypothyroidism and hypoglycemia.(3)

With the abundance of information available about medical options and the alternatives, it is essential that the patient become educated and take more control over his or her own health care. Overall, alternative treatments to any disease require more work and active participation by the patient in order to obtain the optimum health that is desired. There is no one magic pill that will make all ailments disappear, the body must be looked at as a whole entity and all parts of that being must be in balance in order for there to be health. As so rightly defined by the World Health Organization, "Health is a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.(6)

Alternative Causes and Treatments to Depression

Psychological/Emotional Depression: As earlier stated in the definition, this type of depression rarely needs professional intervention, however, there are specific ways to ensure profession intervention is not needed as well as to speed up the process of healing. Researchers found a direct correlation between and individual's level of optimism and the likeliness of developing not only clinical depression but other illnesses as well. Optimistic people were immune to becoming helpless and depressed. However, individuals that were pessimistic were extremely likely to become depressed when something went wrong in their

lives. In a study where patients were followed for a total of thirty-five years, optimists rarely got depressed, pessimists were extremely likely to battle depression and other psychological disturbances.(7)

For anyone who battles depression, it is absolutely crucial to learn how to become an optimistic person. In his book, *Learned Optimism*, Dr. Seligman believes that nature has equipped humans with an optimistic attitude and if you are pessimistic it is only because you have gotten into the habit of thinking in a negative framework. Changing the patient's way of thinking can be successfully done through simple yet effective means. Some tips from the work of Dr. Seligman include:

- *Study Optimism*: Read books and listen to the abundance of audiotapes available that provide "blueprints" for optimism.
- *Condition your Mind and Attitude*: the mind is like our physical body, it needs conditioning and training to function properly. This can be accomplished by setting goals, creating positive affirmations, paying attention to self-talk and by asking empowering questions.
- *Seek Help*: if needed, cognitive therapy provided by a qualified professional can guide a person through depression.(8)

Cognitive therapy has been shown to be equally as effective as antidepressant drugs in treating mild to moderate depression. While there is a high rate of relapse of depression when drugs are used, the relapse rate for cognitive therapy is much lower. People taking drugs for depression tend to have

to stay on them for the rest of their lives. That is not the case with cognitive therapy because the patient is taught new skills to deal with depression.(10)

Biochemical/Physiological Depression: The importance of taking a full and complete history of the depressed patient cannot be stressed enough. Looking for the underlying cause of depression is key to successful treatment. The key areas focused on in this review include; prescriptions currently being used, food allergies, physical condition and exercise, stress levels, vitamin and mineral deficiencies, and hidden physiological conditions. (2)

Prescriptions and Depression: Depression is often a side effect of a person's preexisting physical condition or the prescription drugs he or she may be taking. Common drugs associated with depression include corticosteroids, beta-blockers, and other antihypertensive medications. In addition substances not often considered drugs, such as oral contraceptives, alcohol, caffeine and cigarettes can cause depression. All these drugs disrupt the normal balance of systems in the brain and body. For most health conditions there are natural medicines that will produce better results than drugs without the side effects.(5)

Food Allergies and Depression: You are what you eat. A familiar statement that cannot be truer when used in the context of food allergies. Food allergy is one of the least diagnosed and most prevalent causes of symptoms, especially depression. In the 1930s the term, allergic toxemia, was used to

describe a syndrome that included the symptoms of depression, fatigue, muscle and joint aches and nervousness.(11) Food allergies play a major role in many people with depression and it is estimated that as high as at least 60 percent of the American population suffers from symptoms associated with food reactions.(12)

The following is a synopsis of the top allergy causing foods:

- Sugar: Not only is sugar a leading cause of food allergies and sensitivities, but many people lack the enzyme sucrase or fructase to digest certain sugars properly. More importantly, a diet high in sugar robs you of important nutrients. Excessive sugar causes you to lose chromium, the more chromium you lose the more you crave sugar, this turn into a vicious cycle that can eventually lead to hypoglycemia and candidiasis which both result in mood swings and depression.(13).

The treatment: Eliminating sugar from the diet can drastically improve the overall mood and health of the depressed patient.(5)

- Gluten and Wheat: The second most common food to cause depression is wheat. Some people are sensitive to wheat and the brain happens to be the organ that is targeted and depression is the result. While other people develop celiac disease or what is called gluten enteropathy. Special antibodies attach to tissues in the intestine and destroy the intestinal villi so

the nutrients cannot be properly absorbed. These people get malabsorption and a whole host of gastrointestinal problems as well as depression.(12)

The treatment: By eliminating wheat and gluten completely from the diet for a period of six months allows the gut to properly heal and as a result help the depression.(5)

- **Mold and Fermented Food:** Mold allergies from the air are a well known cause of depression, however, when people eat food that have mold antigens in them, this can also cause depression. The mold antigens get into the blood stream and affect the brain, which leads to depression. Foods that contain mold antigens are things that are aged. These include cheeses, alcohol, dried fruit and anything containing vinegar like pickles, ketchup, mustard and salad dressings.(14)

The Treatment: Eliminate foods from the diet that are aged or fermented.(5)

- **Caffeine:** People who suffer with depression must avoid caffeine. Everyone's response to caffeine varies however, people prone to feeling depressed or anxious tend to be especially sensitive to caffeine. One study found that among healthy college students, moderate and high coffee drinkers scored higher on a depression scale than did low users.(15)

The Treatment: Avoid all caffeine. This includes, coffee, tea, chocolate and sodas.(5)

Any food can cause an allergic reaction, which may be the underlying cause of the depression. If allergies are suspected there are two basic categories of tests commonly used to diagnose food allergies: the food challenge, and the laboratory method.

The food challenge method requires no expense but it does require much work on the part of the patient. It involves an elimination diet where all foods except the least reactive foods such as lamb, rice, chicken, potatoes, banana and apples are consumed for a period of one week to one month. If the symptoms are related to food sensitivity they should disappear by the fifth or sixth day.

Individual foods are reintroduced at a rate of one new food every two days. If a person is allergic to the reintroduced food, it typically produces a recognizable symptom. Elimination diets can effectively detect food allergies, however, it is time consuming and requires discipline and motivation by the patient.(2)

Laboratory tests are available which provide immediate feedback where food allergies can be easily identified. Special blood tests measure IgE and IgG type food allergies and are extremely convenient and accurate, however, the downside is they are relatively expensive. (5)

Exercise and Depression: Regular exercise may be the most powerful natural antidepressant available. Studies have shown that increased participation in exercise, sports and physical activities is strongly associated with decreased

symptoms of anxiety, depression and sickness. As well, people who participate in regular exercise have higher self-esteem, feel better, and are much happier compared with people who do not exercise.(16)

Much of the mood-elevating effects of exercise may be attributed to the fact that regular exercise has been shown to increase the level of powerful mood-elevating substances in the brain known as endorphins. When endorphin levels are low, depression occurs and when endorphin levels are elevated so is the mood. These endorphins exert effects similar to morphine. In several studies, it was concluded that exercise is as effective as other antidepressants, including drugs and psychotherapy.(17)

Stress and Depression: It is well documented that stress can cause sickness and depression by altering the body's natural chemistry, which in turn lowers the immune system. Actual stress, the perception or interpretation of life events whether positive or negative into stress, lowers crucial nutrients like magnesium and choline.(12) In addition, the adrenal glands play a key role in the stress response because they secrete adrenaline and other stress-related hormones. These hormones are responsible for the many feelings of stress. Over time, in the stressed individual, the adrenals become overworked and depleted. The results are an imbalance of hormones in the body, particularly an increase in cortisol, which is directly linked to causing depression.(18) Stress can cause a multitude of

problems, especially if a person does not regularly employ a method of stress reduction.

The Treatment: There are several simple ways a person can learn to reduce stress. Physical exercise is a great stress reducer and is a necessary component in a comprehensive stress management program. However, passive methods of stress reduction are also extremely important to practice. According to Dr. Murray in his book, *Natural Alternatives to Prozac*, relaxation techniques such as meditation, prayer, self-hypnosis, biofeedback, and visualizations should be performed for at least ten to fifteen minutes each day. Although an individual may relax by simply sleeping, watching T.V., or reading a book, relaxation techniques are designed specifically to produce in the body the relaxation response. One of the most powerful methods of eliminating stress and producing more energy in the body is breathing with the diaphragm. By using the diaphragm to breathe, a person dramatically changes his physiology. Diaphragmatic breathing literally activates the relaxation centers in the brain.(5)

Vitamin/Mineral Deficiencies and Depression: The brain requires a constant supply of nutrients. It is a well-established fact that virtually any nutrient deficiency can result in impaired mental function. A deficiency of any single nutrient can alter brain function and lead to depression, anxiety and other mental disorders. Nutrition can powerfully influence cognition, emotion, and behavior.

Correcting an underlying nutritional deficiency can restore normal mental function and relieve depression.(19)

The Treatment: According to Dr. Murray, the first step in prevention of a vitamin and mineral deficiency is to eat a health-promoting diet that is rich in whole, natural and unprocessed foods. The diet should be especially high in plant foods, such as fruits and vegetables, grains, beans, seeds and nuts, low in fat and sugar and high in fiber with a moderate intake of lean protein. In addition, a high quality, high-potency multiple vitamin and mineral formula supplementation should be taken on a daily basis.(5)

It is estimated that 80 percent of our population consumes an insufficient quantity of essential fatty acids, particularly omega-3. Studies have shown that a deficiency in essential fatty acid can mimic several mental illnesses including depression. Therefore, it is recommended that the diet be supplemented with high quality flaxseed or fish oil.(20)

Furthermore, a simple serum blood test can be performed rather inexpensively to determine specific vitamin and nutrient deficiencies. This will allow the health care provider to tailor the diet and supplementations to individual patients in order to effectively correct the imbalances and improve the over all health.(12)

Hypothyroidism and Depression: The first symptom observed in hypothyroidism is depression, as the brain appears to be extremely sensitive to low thyroid levels. A mild hypothyroidism is the most common form of hypothyroidism. The majority of people with hypothyroidism are going undiagnosed because the blood test used by most physicians only detected more severe cases of hypothyroidism.(21)

The Treatment: The temperature of the body at rest, or the basal body temperature is the most sensitive functional test of thyroid function. A resting body temperature below 97.6 degrees recorded for five consecutive days may indicate low thyroid function.(22) Thyroid supplements in the form of desiccated natural thyroid is a natural treatment that may provide enough support for mild hypothyroidism and thereby avoiding the synthetic thyroid hormones available by prescription.(23)

Hypoglycemia and Depression: Hypoglycemia is another common cause of depression. Hypoglycemia is a result of faulty carbohydrate metabolism. The body needs to maintain blood sugar levels within a narrow range in order to ensure the brain receives a constant supply of glucose, the brain's primary source of energy. When these levels are not maintained, the brain cannot function properly resulting in symptoms that range from mild to severe depression, anxiety, irritability, fatigue, headache and mental confusion.(24)

The Treatment: According to Dr. Murray, the standard method of diagnosing hypoglycemia is the oral glucose tolerance test, however a more useful measure of diagnosing hypoglycemia is a patient questionnaire that assesses symptoms often attributable to hypoglycemia.(5) Most often, eliminating the intake of refined sugar and limiting the intake of fruit is all that is needed to reestablish proper control of blood sugar levels. In addition, taking a supplement of chromium can be useful, as chromium is critical to proper blood sugar control.(25)

The next major advance in the health of the American people will be determined by what the individual is willing to do for himself.

*-John Knowles, former president
of the Rockefeller Foundation*

Conclusion

In conclusion, two things are clear. The human suffering resulting from depression is real and impacts every aspect of one's life – family, work and relationships. Secondly, depression is not an illness that can be explained by a single cause or reversed by a single cure, as demonstrated by the problems associated with the anti-depressant drugs used over the years. There is no magic pill for depression. However, there are many answers to solving this complex problem if one is willing to look. The key is in understanding the many underlying causes of depression and becoming aware of the variety of natural approaches to its treatment.

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