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## A Review on Depression and its types.

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## ABSTRACT

Consultation is of great importance for psychological issues and problems such as depression, which is quite common in today's world. Although, modern man has overcome nature's issues and problems and unraveled the secrets of the universe, he has faced difficulties in regard to mental and psychological problems. Industry and technology has also not been able to help in this regard. One of the problems of today's world is depression. Depression as an emotional problem is among mental illnesses in today's world, which entails feelings of guilt, hopelessness, fear and worthlessness. Depression is considered in two levels of severe and mild, which is most likely caused by inheritance, stress, inappropriate thoughts and the environment. For the purpose of treatment, symptoms should be identified, and consulting techniques should be adopted. Investigation and identification of depression, its causes and treatment are briefly discussed in this paper. Depression is not a limited illness, but it appears in all ages and races, women and men. Depression is not a simple illness, but it has various types, in a way that we generally can't identify it as depression when it appears in some people. Depression usually reappears after treatment. Depression entails various issues. Apart from medical issues and sadness which are very common, the depressed person feels that he is being discriminated in activities, rejected socially and hated by his family. The seclusion caused by depression, sometimes will lead the treatable patients to death. Depression which is usually called: clinical depression, mood disorder or emotional disorder, causes thought and emotional disorientation, behavioral fluctuation and physical illnesses. From the viewpoint of social interaction, depression is more crippling than other chronic diseases. Major depression (major depressive disorder) is more crippling than chronic lung disease, joint inflammation and diabetes. Depression is a syndrome, which means it is a combination of different symptoms.

Keywords: Depressive disorders, Depression, Emotional Disorder

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#### INTRODUCTION

Depressive disorder is one of psychiatrists' most common diagnoses, characterized by low mood, a feeling of sadness, low self esteem and disinterest toward any kind of daily activity and pleasure; which is also called "psychological cold". Depression is a combination of various mental and psychological states which emerges from a mild feeling of melancholy and silence and detachment from daily activity. Major depression is a phrase, used by the American Psychiatric Association for a set of DSM-III mood disorder symptoms in 1980 and after that, became popular. Major depression leads to breakdown in private and social life, and influences health and daily functions, like eating and sleeping.[1-3]

Depression is an illness which causes a perpetual feeling of sadness and loss of interest. Most People, often feel irritation, depression and sadness; this feeling of depression and sadness is body's natural reaction to life's difficulties, loss of property and loss of loved ones. But if this strong feeling of sadness, hopelessness, misery and worthlessness lasts more than a few days or a few weeks, you suffer from depression. Depression affects your thinking, feelings and behavior. Depression can cause various mental and physical illnesses. Depressed people may not be able to do daily routines and may feel that life is not worth living. Contrary to public belief, depression is not just a weakness and can't be ignored, rather it is a chronic disease like diabetes and hypertension and etc, and it should be treated. Medications, psychotherapy, and other methods can effectively treat people with depression.[4-6]

According to the American national institute of mental health, People with depressive illnesses do not all experience the same symptoms. Some of the common symptoms of depression are: difficulty concentrating, remembering details and making decisions; Fatigue and decreased energy; Feelings of guilt, worthlessness, or helplessness; Feelings of hopelessness or pessimism; Insomnia, early-morning wakefulness, or excessive sleeping; Irritability, restlessness; Loss of interest in activities or hobbies once pleasurable, including sex; Overeating, or appetite loss; headaches, cramps, or digestive problems; loss of sexual desire; crying with no apparent reason.[7-9]

The usual symptoms of depression in children and adolescents can be different from adults. The signs of depression in children are sadness, restlessness, anxiety and hopelessness and the signs in adolescents are anxiety, anger and avoiding society. A change in the way of thinking and sleeping disorder are signs that appear in both children and adolescents. In children and adolescents, depression usually co-occurs with other illnesses like anxiety disorder and Attention Deficit Hyperactivity Disorder (ADHD). Children that have this illness may experience difficulty doing school homework. The signs of depression are so severe in some people that it is easily spotted but some people feel sadness, without knowing the reason. The cause of depression is usually a combination of genetic, physical, environmental and psychological factors.[10-12]

#### Depression

Depression is a very common mental and physical illness of our time and has an increasing trend in the world, while half of the depressed people either do not know about it or they are diagnosed with other illnesses. Depression is a feeling of sadness and hopelessness in most of the days and daily hours, accompanies by other symptoms. Depression is not a limited illness, but it appears in all ages and races, women and men. Depression is not a simple illness, but it has various types, in a way that we generally can't identify it as depression when it appears in some people. Depression usually reappears after treatment. Depression entails various issues. Apart from medical issues and sadness which are very common, the depressed person feels that he is being discriminated in activities, rejected socially and hated by his family. The seclusion caused by depression, sometimes will lead the treatable patients to death. Depression which is usually called: clinical depression, mood disorder or emotional disorder, causes thought and emotional disorientation, behavioral fluctuation and physical illnesses. From the viewpoint of social interaction, depression is more crippling than other chronic diseases. Major depression (major depressive disorder) is more crippling than chronic lung disease, joint inflammation and diabetes. Depression is a syndrome, which means it is a combination of different symptoms.[13-16]

**Page No. 297** 

7(1) RJPBCS

2016

January – February



## Symptoms of depression

According to the American national institute of mental health, People with depressive illnesses do not all experience the same symptoms. Some of the common symptoms of depression are as follows:[17-19]

- Difficulty concentrating, remembering details, and making decisions
- Fatigue and decreased energy
- Feelings of guilt, worthlessness, or helplessness
- Feelings of hopelessness or pessimism
- Insomnia, early-morning wakefulness, or excessive sleeping
- Irritability, restlessness
- Loss of interest in activities or hobbies once pleasurable, including sex
- Overeating, or appetite loss
- Headaches, cramps, or digestive problems
- loss of sexual desire
- Crying with no apparent reason.

## Causes of depression

Depression is usually a combination of genetic, physical, environmental and psychological factors. Some of them are as follows: [20-22]

- Neurotransmitters. These natural brain chemicals are in direct relationship with your mood and play a major role in depression.
- Hormones. A change in the level of hormones can be the cause of depression.
- Heredity. Depression is more common in people with a family history of depression.
- Life events. Major events like death or loss of a loved one, financial crisis and severe anxiety can cause depression.
- Childhood trauma. Traumas like loss of parents, being sexually assaulted and etc. has permanent effects on the brain and can cause depression.

## Who is prone to depression?

Depression usually occurs in adolescence and between the second and third decades of life, but it is not limited to it and people of all ages may get depressed. Almost twice as many women as men have depression, but this is not true and it's because, more women visit doctors. People that have the following conditions are more prone to depression:[23-25]

- Women
- having a family history of depression
- Childhood trauma
- Having depressed friends
- Loss of family members and loved ones
- Giving birth (postpartum depression)
- Having a history of depression
- Having dangerous illnesses like cancer, diabetes, heart disease, Alzheimer, or HIV/ AIDZ
- Having peculiar behavior and personality like those who are very dependant, those with low self respect, pessimists and etc.
- Addiction to alcohol and narcotics
- Taking medicine for hypertension, sleeping pills or other special medication

7(1) RJPBCS

2016

January – February



## Types of depression

There are different types of depression which are as follows: [26-28]

- Major depressive disorder
- Chronic depression (Dysthymia)
- Bipolar depression
- Seasonal depression (SAD)
- Psychotic depression
- Postpartum depression
- Substance-Induced Mood Disorder (SIMD)

## Major depression

Major Depressive disorder is one of psychiatrists' most common diagnoses characterized by low mood, a feeling of sadness, low self esteem and disinterest toward any kind of daily activity and pleasure; it is also called "psychological cold". Depression is a combination of various mental and psychological states which emerges from a mild feeling of melancholy and silence and distance from daily activity. Major depression is a phrase, used by the American Psychiatric Association for a set of DSM-III mood disorder symptoms in 1980 and after that, it became popular. Major depression leads to breakdown in private and social life, and influences health and daily functions, like eating and sleeping.[29, 30]

## Causes

## **Biological causes**

- Genetics: Depression's prevalence in identical twins is 65 percent, while in other twins it is 14-19 percent, which proves the role of genetic factors. Researchers have found several genes in relation with bipolar disorder, but they are looking for genes that are related to other forms of depression. However, not everyone with a family history of depression will suffer from this illness. [31]
- Serotonin and other neurotransmitters: the existence of neurotransmitter disorder in synapses is discovered in some patients. In addition to serotonin, nor epinephrine and dopamine are seen in depressed patients.[32]
- Medication: prolonged use of some medicines like hypertension medicine, sleeping pills and birth control pills may lead to some symptoms of depression. Use of birth control pills has a direct effect on women's depression.[33]
- Diseases: chronic diseases like heart disease, stroke, diabetes, cancer, Alzheimer or migraine puts the patients in an increased danger of depression. Studies show an unproven relationship between depression and heart disease. Depression occurs in most of the people who have experienced a heart attack. Untreated depression may lead to death, in the first years after heart attack. Hypothyroidism even in its mild form may lead to depression.[34]

## **Psychosocial causes**

- Stress: stressful life events, specially loss or the possibility of loss of a loved one or job may trigger depression.[35]
- Social factors: being dissatisfied by society or psychological factors related to society, play an important role.[36]
- Personality: personality types like low self esteem, extreme dependence, pessimism and sensitivity toward stress may trigger depression. Having a hypersensitive, tidy and serious, perfectionist or extremely dependent personality may increase the risk of depression.[37]

- Failure in life: failure in work, marriage or social relationships may lead to depression, also death or absence of a loved one; loss of important things (job, house, money); job change or moving to a new location; undergoing surgeries like removing breasts because of cancer; transition from one stage of life to another like menopause or retirement.[38]
- Mental illnesses: anxiety, Intellectual Development Disorder, Alzheimer, eating disorder and drug abuse.[39]

Signs

#### Thoughts

60 percent of depressed patients have suicidal thoughts and 15 percent of them do commit suicide. A feeling of hopelessness, guilt for non-significant or imaginary things, worthlessness, nihilism, hallucination, Obsessive Compulsive Disorder is seen in depressed patients.[40]

#### Sensory system

Distraction, difficulty in concentration, memory disorder, bafflement and sometimes Abstract Thinking Disorder is common among depressed patients (specially observed in elders).[41]

#### Appearance

Sadness, crying with no reason, loss of interest in activities once pleasurable, fatigue, restlessness, irritability, sleeping disorder (difficulty sleeping or excessive and uncomfortable sleeping) is seen in depressed patients. Psychomotor Retardation and paying no attention to personal appearance is quite common. Spontaneous speech is scarce or completely absent. Long pauses in speech, use of one syllable words, low and steady voice are the usual speech characteristics.[42, 43]

#### Treatment

Depression treatment can be categorized into medical and non-medical treatment. The effectiveness of both these treatments is proved in many studies. In severe cases, use of antidepressants is the best option. These medications have been improved in quantity and quality over the recent decades in a way that, they have no severe or debilitating side effects anymore. Cognitive-behavioral psychotherapy or in some cases psychoanalytic therapy are effective treatments for depression. In non-severe cases where depression has not appeared as a disorder yet, there are things that you can do to reduce pressure and stress, such as breaking down big responsibilities, prioritize your affaires, doing things only to the extent of your abilities, relaxing exercises, going to cinema, attending religious and social ceremonies or any other activity that helps you; talking and socializing with friends and family, avoiding alcohol, having a stable and low fat diet, positive thinking, watching comedies, traveling and attending activities which are useful and give you a better feeling. Neurofeedback therapy and electroconvulsive therapy are new treatments for depression.[44, 45]

#### Chronic depression (dysthymia)

Many of the people with chronic depression respond well to initial treatments with antidepressant. But after taking the medication, the symptoms of depression are completely eliminated only in one third of depressed patients. In most cases, there are no apparent traces of depression, but there are still some remaining signs left in the patient. These resistant traces may dispose the patient to behavioral and relational disorders and in result lead to the reoccurrence of depression. When depressed patients use antidepressants under the supervision of a doctor, they may initially experience vast improvements and sometimes, the doctor and patient may think the illness is completely treated. But you should know that there is a very low possibility of the elimination of all of the symptoms. So, when you begin a period of treatment, your first goal should be reducing the symptoms. Reducing

7(1)

RIPBCS

2016



the symptoms is a standard procedure that doctors and researchers use in order to categorize the patients into two categories of "responded positively" and "improved". This means that many patients still suffer from the remaining symptoms of depression. Complete treatment is the final goal and includes the elimination of all the symptoms and traces of the disease. The goal is the complete elimination of the disease, not just its apparent symptoms. About 12 to 18 percent of patients with chronic depression achieve full recovery. That's why during treatment, patients may face the remaining traces of depression.[46-49]

The most common signs that depression is not fully treated:

- Guilt
- Insomnia
- Anxiety
- Loss of interest
- Fatigue
- Reduced sexual desire
- Ongoing depression and reduced interest [50]

The most common untreated physiological symptoms of depression:

- Back pain
- Pain in the muscles
- Pain in the joints
- Stomachache

The most common signs that depression is not fully treated:[51]

#### Insomnia

Patients under treatment that still suffer from Insomnia will most probably have little improvement. Sleeping disorder and insomnia can have negative effects on patients' health and the process of improvement. Insomnia will increase the possibility of suicide. Patients may not be able to recognize their own insomnia or sleep deprivation. That's why the doctor should perform EEG test in order to diagnose insomnia and sleep deprivation.[52, 53]

#### Anxiety

Depression will reoccur in patients that still show signs of anxiety. The more anxious the patient, the longer it will take to treat. If anxiety and restlessness persists after continual treatment, the patient may have anxiety disorder and not depression.[54, 55]

#### Lack of interest

Most of the patients with chronic depression have no interest in work, relationships and not even themselves. These signs manifest themselves through reduced creativity and work efficiency, repetitive leaves of absence, lack of satisfaction in work and working environment, and difficulty communicating with coworkers. [56, 57]

Dangers of the remaining and hidden symptoms of the disease

Untreated symptoms of chronic depression put the patient in danger of heart disease and stroke. Patients that still have symptoms of the disease and are not aware of them will encounter health problems and their dependence on doctors, medication and clinics will increase.[58]



## Who still carries the symptoms? [59]

It is not clear that why some people still carry the symptoms while others don't. Despite this fact, researchers have introduced commonalities to help doctors understand whether the patients have fully recovered or only the apparent symptoms have disappeared. This list of commonalities is presented below:

- Extreme initial symptoms
- Depressive mood disorder
- Constant stimuli that cause tension
- Diminished social and economical status
- Weak social support

## **Chronic depression side effects**

Depression is a serious and important illness that has horrible effects on patients and their families. Untreated depression can cause emotional, behavioral and physical problems. These side effects include: [60, 61]

- Alcoholism
- Substance abuse
- Anxiety
- occupational and/or educational problems
- family problems
- isolation
- suicide
- self-induced pain, like cutting oneself

#### **Psychotic Depression**

Psychotic depression is a subtype of depression that occurs when a severe depressive illness occurs simultaneously with some form of dementia [62]. Psychosis in psychotic depression may include hallucinations (such as hearing a voice telling you that you are no good or worthless), delusions (such as, intense feelings of worthlessness, failure, or having committed a sin) or some other break with reality. Psychotic depression affects roughly one out of every four people admitted to the hospital for depression[63, 64].

#### **Psychotic Depression versus Clinical Depression**

According to the National Institute of Mental Health, a person who is psychotic is out of touch with reality. People with psychosis may hear "voices," or they may have strange and illogical ideas. For example, they may think that others can hear their thoughts or are trying to harm them[65]. They might think they are possessed by the devil or are wanted by the police for having committed a crime that they really did not commit[66].

People with psychotic depression may get angry for no apparent reason. Or they may spend a lot of time by themselves or in bed, sleeping during the day and staying awake at night. A person with psychotic depression may neglect appearance by not bathing or changing clothes. That person may also be hard to talk to. Perhaps, they talk to imaginative people[67].

People with other mental illnesses, such as schizophrenia, also experience psychotic symptoms. However, those with psychotic depression usually have delusions or hallucinations that are consistent with themes about depression (such as worthlessness or failure), whereas psychotic symptoms in schizophrenia are more often bizarre or implausible and have no obvious connection to a mood state (for example, thinking strangers are following them for no reason other than to harass them)[68, 69]. People with psychotic depression also may be



humiliated or ashamed of the thoughts and try to hide them. Doing so makes this type of depression very difficult to diagnose [70].

But correct diagnosis is very important, as psychotic depression treatment differs from different types of non-psychotic depression. Also, having psychotic depression increases the risk of bipolar disorder, mania, and even suicide[71].

## Symptoms of Psychotic Disorder

Common symptoms for patients who have psychotic depression include [72, 73]:

- Agitation, confusion and excitement
- Anxiety
- Constipation
- Hypochondria
- Insomnia
- Intellectual impairment
- Physical immobility
- Delusions or hallucinations

#### **Treatment of Psychotic Disorder**

Usually, treatment for psychotic depression is given in a hospital setting. That way, the patient has close monitoring by mental health professionals and psychiatrist. Different medications, including combinations of antidepressants and antipsychotic medications are used to stabilize the person's mood[74].

Antipsychotic drugs affect neurotransmitters that allow communication between nerve cells in areas of the brain that regulate our ability to perceive and organize information about the world around us. There are a number of antipsychotic, or neuroleptic, medications commonly used today. Each drug has unique side effects and may differ in its clinical efficacy indicators; although, today's drugs are considerably better than earlier medicines[75, 76].

Treatment for psychotic depression is very effective. People are able to recover, usually in a year. But continual medical follow-up may be necessary. If the medications do not work to end the psychosis and depression, electroconvulsive therapy (ECT) is likely to be used. It's important for the patient to work with the doctor to find the most effective drugs with the least side effects. Since psychotic depression is quite serious, the risk of suicide is also great[77, 78].

#### Mood Disorders

Depression and mania are two subtypes of mood disorders. The symptoms of depression episode are: low energy levels, depressed mood, sadness, apathy, loneliness, helplessness, fatigue, failure, emptiness, and suicidal thoughts[79]. The symptoms of maniac episode are: increased energy, less need for sleep, inflated self-esteem, irritability, big appetite, more sexual behavior, huge risk-taking, and prodigality[80]. This mood disorder may be more rooted in human genetics at the family level, such as grandfather, grandmother, father, mother, brother, sister, uncle, aunt[81]. This is usually an adulthood disease, in which some individuals suffer episodes of the disease that last for 15-20 days, and ends for the next 8-9 month to 2 years until the next depressive episode that last for 2-3 months; although, patient may not experience manic episode and only have depression for a period. In general, they should use medicine under a psychiatrist's supervision[82]. Even in the health phase, continual medical follow-up and psychotherapy by a clinical psychologist are necessary. Treatment usually causes 95% normal lifespan. The problem can be cured after a longer time even if the treatment is not received. Such people

**Page No. 303** 

7(1)

RIPBCS 2016

January – February



can get married, but when trying to conceive, it is better to use healthier donated sperm as the children of mood disorder gene carriers have a 50% chance of inheriting the disease[83].

#### The Causes of Mood Disorder

Mood disorder may be more rooted in human genetics at the family level, such as grandfather, grandmother, father, mother, brother, sister, uncle, aunt [84]. This is usually an adulthood disease. Such people can get married, but when trying to conceive, it is better to use healthier donated sperm as the children of mood disorder gene carriers have a 50% chance of inheriting the disease[85]. Apart from genetic factors, biologic, biochemical, and social factors play a role in the development of this disease. Biochemical studies have shown that the lack of or low sodium carbonate (type of salt) in the blood serum in these patients. Because of that, they receive sodium carbonate supplement[86]. In terms of endomorphic typology, the obese, extroverts, and sociable people are more prone to develop this disease. Climatically, recurrence risk of the disease is higher in the late of spring and the beginning of hot season. Psychologically, high idealism, intense discipline, and inaccessible goals may wake up this disorder. Behaviorists assume the reduced cycles of the amplification and activity as the cause of emotional disorders, specifically depression. Psychoanalysts believe that when the ideas or needs are far from super-egos or ideals, and the ego feels helpless in solving its problems or achieving its goals, depression occurs [87, 88].

### Treatment of Mood Disorder

As we have said, mode disorder may have a root in genetic; therefore, the first step to prevent disease and its prevalence is avoiding unhealthy marriage to inhibit the transmission of defective gene. Such people can get married, but when trying to conceive, it is better to use healthier donated sperm as the children of mood disorder gene carriers have a 50% chance of inheriting the disease. Treatments for the patients with mood disorder include[74]:

*Milieu Therapy*: Depressive atmosphere is incapable of developing a full sense of self-confidence, and gradually disrupts it. In fact, continuous stimulation of one's internal conflicts and emotions make him/her prone to depression. Thus, manipulating the patient's environment is essential. In addition, the surrounding people should consider some important points: 1) they should understand that the depressed person does not pretend and he/she is really offended and annoyed, even if it is accompanied with anger and nagging; 2) they should substitute the sense of friendship for that of sympathy, as the latter declines the patient's self-confidence; and 3) they should bring real hope to the patients, instead of vain hope.

*Psychotherapy*: Psychotherapy is a way for releasing emotions and feelings. It evaluates one's feelings and emotions based on psychological knowledge and understanding. Psychotherapy resolves the patient's psychological conflicts and reconstructs his/her destroyed self-confidence. In psychotherapy, the clinical psychotherapist and psychologist try to eliminate patient's feelings of inferiority, guilt, and helplessness by creating the sense of empathy (which is different from sympathy and condolence) and by using various techniques[89, 90]

*Behavior Therapy*: In behavior therapy, the emphasis is on the treatment of the symptoms and signs of disease. For this purpose, the conditional reflection principles or encouragement-reinforcement assumptions are used[91].

*Electroshock Therapy*: It is usually used for treating major treatment-resistant depression, especially when there is a risk of suicide[92].

*Pharmacotherapy*: For the treatment of depression, tricyclic drugs such as imipramine, amitriptyline, nortriptyline, trimipramin, etc. and newer drugs such as Fluoxetine are used. When depression is accompanied with anxiety and insomnia, supplementary sedatives like benzodiazepines (lorazepam, diazepam, and Aksazpam) are used. For mania, in addition to other drugs, lithium carbonate (i.e. type of salt) is administered to compensate for lithium shortage in blood serum. Blood lithium level is measured by a psychiatrist 10-15 days after receiving lithium supplement to regulate its level. In general, the use of medicine should be supervised by a psychiatrist. Even in the



health phase, the patient should receive maintenance dosage of drug, like a thyroid patients who regularly consumes thyroxine, and underwent psychotherapy by a clinical psychologist. Treatment can bring 95% normal lifespan to the patient. It should be said that the disorder and disease would be spontaneously cured even in the lack of treatment, but in a longer time. To respond to a patient asking whether this disease is dangerous and fatal, I should say 'No' if the patient's faulty thoughts do not create any danger to him/her [93, 94].

### CONCLUSION

Loneliness, isolation, self-harm, and discomfort are responses to environmental stimuli. In general, we can say that depression is a response from a healthy person to life pressures, manifested as inappropriate behaviors such as the loss of appetite and libido, reduced demand for others' attention and kindness, isolation, etc [95].

Understanding the depression and its factors show us the proper way of living that promotes the health conditions of ourselves and our surrounding people. In other words, more understanding of depression gives a new view towards the world.

### REFERENCES

- [1] Kessler, R.C., et al., Jama, 2003. 289(23): 3095-3105.
- [2] Association, A.P., Practice guideline for major depressive disorder in adults. 1993: Amer Psychiatric Pub Incorporated.
- [3] Horwitz, A.V. and J.C. Wakefield, 2007: Oxford University Press.
- [4] Kessler, R.C., et al., The British journal of psychiatry, 1996.
- [5] Frank, E., et al., Archives of general psychiatry, 1991. 48(9): 851-855.
- [6] Hasin, D.S., et al. Journal of the American Academy of Child & Adolescent Psychiatry, 1995. 34(3): 312-321.
- [7] Nemets, B., Z. Stahl, and R. Belmaker, American Journal of Psychiatry, 2002. 159(3): 477-479.
- [8] Carney, R.M., et al., Psychosomatic Medicine, 1988. 50(6): 627-633.
- [9] Detke, M.J., et al., The Journal of clinical psychiatry, 2002. 63(4): 308-315.
- [10] Lewinsohn, P.M., et al., Journal of the American Academy of Child & Adolescent Psychiatry, 1999. 38(1): 56-63.
- [11] Birleson, P., Journal of Child Psychology and Psychiatry, 1981. 22(1): 73-88.
- [12] Goldstein, D.J., et al., The Journal of clinical psychiatry, 2002. 63(3): 225-231.
- [13] Berman, R.M., et al., The Journal of clinical psychiatry, 2007. 68(6): 843-853.
- [14] Carney, R.M., et al., The American journal of cardiology, 1987. 60(16): 1273-1275.
- [15] Hauser, P., et al., Molecular psychiatry, 2001. 7(9): 942-947.
- [16] Costello, C.G., Symptoms of depression. Vol. 172. 1993: Wiley New York.
- [17] Barefoot, J.C. and M. Schroll, Circulation, 1996. 93(11): 1976-1980.
- [18] Bush, D.E., et al., The American journal of cardiology, 2001. 88(4): 337-341.
- [19] Walsh, L., Depression, 1989: 1-17.
- [20] Fernández, F. Anales de la Real Academia Nacional de Medicina. 2010.
- [21] Calhoun, L.G., T. Cheney, and A.S. Dawes, Journal of Consulting and Clinical Psychology, 1974. 42(5): 736.
- [22] DiMatteo, M.R., H.S. Lepper, and T.W. Croghan, Archives of internal medicine, 2000. 160(14): 2101-2107.
- [23] Peterson, C. and M.E. Seligman, Psychological review, 1984. 91(3): 347.
- [24] Barth, J., M. Schumacher, and C. Herrmann-Lingen, Psychosomatic medicine, 2004. 66(6): 802-813.
- [25] Baxter, L.R., et al., Archives of general psychiatry, 1989. 46(3): 243-250.
- [26] Maas, J.W., Archives of General Psychiatry, 1975. 32(11): 1357-1361.
- [27] Gillespie, R., Guy's Hospital Reports, 1929. 79: 306-344.
- [28] Panel, D.G., Depression in Primary Care (Volume 2: Treatment of Major Depression). 1993. Pp: 98-105

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- [29] Bremner, J.D., et al., major depression. 2014.
- [30] Kendler, K.S., et al., Archives of General Psychiatry, 1993. 50(9): 690-698.
- [31] Brettingham, M., BMJ, 2004. 329(7476): 1205.
- [32] MCNAMARA, D. and F. BOCA RATON, Clinical Psychiatry News, 2010. 38(8): 1-2.

7(1)

ISSN: 0975-8585



- [33] Rooney, A.G., et al. 2009. OXFORD UNIV PRESS INC JOURNALS DEPT, 2001 EVANS RD, CARY, NC 27513 USA.
- [34] Boyce, P. and A. Hickey, Social psychiatry and psychiatric epidemiology, 2005. 40(8): 605-612.
- [35] Crowell, B.A., et al., The British Journal of Psychiatry, 1986. 149(3): 307-314.
- [36] Dohrenwend, B.P., et al., psychiatric illness, 1995: 43-65.
- [37] Wang, J. and N. Schmitz, Social psychiatry and psychiatric epidemiology, 2011. 46(7): 577-584.
- [38] Albert, P. and S. Lemonde, 2003, Google Patents.
- [39] Tollefson, G.D., et al., International clinical psychopharmacology, 1993.
- [40] Wheatley, J., A. Hackmann, and C. Brewin, traumatic stress reactions, 2009: 78-92.
- [41] Vangu, M., major depression. 2014.
- [42] Albuquerque, J., D. Deshauer, and P. Grof, Journal of Affective Disorders, 2003. 76: 1-3.
- [43] Goldapple, K., et al., Archives of general psychiatry, 2004. 61(1): 34-41.
- [44] Glassman, A.H., et al., Jama, 2002. 288(6): 701-709.
- [45] Keller, M.B. and R.W. Shapiro, The American journal of psychiatry, 1982.
- [46] Keller, M.B., et al., New England Journal of Medicine, 2000. 342(20): 1462-1470.
- [47] Nemeroff, C.B., et al., Proceedings of the National Academy of Sciences, 2003. 100(24): 14293-14296.
- [48] Miller, I.W., et al. Journal of Clinical Psychiatry, 1998.
- [49] Kirk, M. and P. LeGeyt, British Journal of Cardiac Nursing, 2010. 5(1): 13-18.
- [50] Franke, L., et al., Depression research and treatment, 2014. 2014.
- [51] Rai, M., et al., Indian journal of nephrology, 2011. 21(4): 223.
- [52] Buysse, D.J., et al., Sleep, 2008. 31(4): 473.
- [53] Brown, T.A., et al., 1997. 35(1): 79-89.
- [54] Henry, J.D. and J.R. Crawford, 2005. 44(2): 227-239.
- [55] Bluhm, R., et al., 2009. 63(6): 754-761.
- [56] Hasler, G., World Psychiatry, 2010. 9(3): 155-161.
- [57] Kennedy, S.H., H. Dugré, and I. Defoy, International clinical psychopharmacology, 2011. 26(3): 151-158.
- [58] Sageman, S. and R.P. Brown, 2012, Google Patents.
- [59] Curson, D., T. Barnes, and R. Bamber, Br J Psychiatry, 1985. 146: 469-474.
- [60] Bangaru, R., N. Lakkad, and R. Goyal, Indian J. Pharmacol, 1996. 23: 33-34.
- [61] Alexopoulos, G.S., et al., American Journal of Psychiatry, 1993. 150: 1693-1693.
- [62] Huber, C.G., D. Naber, and M. prevalence and predictors. 2008.
- [63] Marshall, M., S. Harrigan, and S. Lewis, 2nd ed. Cambridge, UK: Cambridge University, 2009: pp: 125-45.
- [64] Colorado, N., Medications Booklet.
- [65] Are, W.W., et al., Media Room.
- [66] Kaser-Boyd, N. and C. de Ruiter, Case Studies, 2015: 266.
- [67] Jeste, D.V., et al., American Journal of Psychiatry, 1996. 153(4): 490-496.
- [68] Tsuang, D. and W. Coryell, The American journal of psychiatry, 1993.
- [69] Lykouras, E., G. Christodoulou, and D. Malliaras, Journal of affective disorders, 1985. 9(3): 249-252.
- [70] Jiang, W., et al., differential diagnosis and treatment. 2014.
- [71] van Os, J., et al., Archives of General Psychiatry, 2001. 58(7): 663-668.
- [72] Potash, J.B., et al., 2014.
- [73] McElroy, S.L., et al., Journal of Clinical Psychiatry, 1991.
- [74] El-Khayat, R. and D.S. Baldwin, Journal of Psychopharmacology, 1998. 12(4): 323-329.
- [75] Kozarić-Kovačić, D., N. Pivac, and D. Muck-Šeler, Četvrti hrvatski kongres farmakologije s međunarodnim sudjelovanjem, 2004.
- [76] MINTER, R.E. and M.R. MANDEL, The Journal of nervous and mental disease, 1979. 167(12): 726-733.
- [77] Casamassima, F., et al., The journal of ECT, 2009. 25(3): 213-215.
- [78] Cloninger, C.R., C. Bayon, and D.M. Svrakic, Journal of affective disorders, 1998. 51(1): 21-32.

RIPBCS

- [79] Fiedorowicz, J.G., et al., Psychosomatic medicine, 2009. 71(6): 598.
- [80] McDonald, W.M., The Journal of clinical psychiatry, 1999. 61: 3-11.
- [81] Baker, R.W., et al. 2003. 23(2): 132-137.
- [82] Sadreddin, A. and I. Stroescu, 2014.
- [83] Chiaroni, P., et al., Journal of affective disorders, 2005. 85(1): 135-145.

**Page No. 306** 

7(1)

2016

January - February



- 85. Sadovnick, A., et al., American journal of medical genetics, 1994. 54(2): 132-140.
- 86. Rybakowski, J.K., CNS drugs, 2013. 27(3): 165-173.
- 87. Postolache, T.T., et al., Journal of affective disorders, 2010. 121(1): 88-93.
- 88. Wei, W., Journal of Guizhou University of Technology (social Science Edition), 2002. 4: 015.
- 89. Laaksonen, M.A., P. Knekt, and O. Lindfors, Psychiatry research, 2013. 208(2): 162-173.
- 90. Laaksonen, M., et al., European Psychiatry, 2013. 28(2): 117-124.
- 91. Khilnani, S., et al., Adolescence, 2002. 38(152): 623-638.
- 92. Taieb, O., et al., European psychiatry, 2002. 17(4): 206-212.
- 93. Lam, R.W., et al., Journal of Affective Disorders, 2009. 117: S26-S43.
- 94. Malhi, G.S., et al., Evidence Based Mental Health, 2015. 18(1): 1-6.
- 95. Dean, M.J., L.A. Mattison, and T.F. Krouth, 1992, Google Patents.

2016