# A SHORT REVIEW ON SOME GENERAL DEPRESSION AND RELATED DISORDERS BIOMARKERS, MAINLY BASED ON AGE

**Andreea-Elena MOROȘAN** [1]#, **Georgiana OPREA**[1]#*,
**Alin CIOBICA**[1,2,3]**, Gabriel PLAVAN**[1]**, Kadiatou Tata TRAORÉ**[4]**,
Eman H. RASHWAN**[5]

[1] Department of Biology, Faculty of Biology, Alexandru Ioan Cuza University, B dul Carol I, no 11, 700506 Iasi, Romania

[2] Center of Biomedical Research, Romanian Academy, B dul Carol I, no 8, 700505 Iasi, Romania

[3] Academy of Romanian Scientists, Splaiul Independentei nr. 54, Sector 5, 050094 Bucuresti, Romania

[4] Laboratoire du Développement des Médicaments (LADME), Ecole Doctorale Sciences et Sante, Université Joseph Ki-Zerbo, 03 BP 7021 Ouaga 03, Burkina Faso

[5] Department of Animal Hygiene and Management, Faculty of veterinary Medicine, Cairo University, Cairo, Egypt

\# These authors equally contributed to this work

* Correspondance: Georgiana Oprea, opreageorgiana801@yahoo.ro

**Abstract.** We are describing here some general depression and related disorders biomarkers, mainly based on age, based on our previous exprerience in this area of research and how relevant these aspects could be for future studies on the management of depression (e.g. oxidative stress markers, antioxidants, plant extracts etc).

**Keywords:** depression, age, markers.

## Introduction

Depression is one of the most common mental disorders and also with a high degree of severity [1]. Over time, experts have found that it is difficult to understand how a person suffering from this mental illness feels. In general, depression is often confused with sad, natural situations in anyone's life, which is very wrong [2].

Depression can be triggered by many factors, which are currently not fully known. Most often, it all starts with a very sad event, such as the passing of a

loved one, loss of a job, aggression. Both physically and verbally, the conclusion of a love affair, and so on [2].

The World Health Organization describes depression as a mood disorder that manifests itself through sadness, loss of interest, disturbed sleep, loss of appetite. People suffering from this disease describe the conditions they have as sudden changes from helplessness to hopelessness. Depression can be installed deeper, and in this case it is a very high degree of risk, or may be recurrent, so with a lower degree of risk. Depression is manifested by deep sadness, crying for no reason, isolation, anxiety [3].

Unfortunately, depression does not take into account age, gender, socioeconomic status, professional life, marital and family life. It settles in anyone, and an extremely important factor is stress. It is part of everyone's life, and unfortunately it cannot be eliminated, but must be kept under control in order to reduce the chances of recurrance episodes [2].

Some studies of genetics have concluded that some genetic factors may cause depression and the evolution of this mental disorder. According to the DSM (World Psychiatric Association), which finds depression to be a phenotype. cause, may present the same manifestations [2].

It is known that stress is the main cause in triggering most pathological processes. Stress is also the one that accentuates destructive emotions, such as anxiety and depression. The two also have a biological basis. The low level of serotonin, called the "happiness hormone", which is a known neurotransmitter, released by the epiphysis in the brain, is very important in depressive disorders, as well as dopamine and adrenaline, which are also hormones important in triggering and accentuating depression [4].

Also, the term "anxiety disorders" does not refer only to certain worries that are overperceived. Some fears are beneficial to the individual because they can lead to an increase in professional efficiency, or biologically, fear can keep the individual alive by fleeing from the predator. Anxious people need sprinjin when confronted with their own negative, anxiogenous thoughts about different contexts. There are various anxiety disorders, including agoraphobia, where certain situations generate fear because of certain cognitions directed at the idea that escape from an open/closed space could be difficult and help unavailable. Other anxiety disorders, such as social, separation, and panic disorder, occur in situations that cause fear due to negative cognitions about people around them and the negative appreciation of the individual about oneself. Other disorders due to cognitive impairment of injury to loved ones and self occur in individuals suffering from obsessive-compulsive disorder, trauma-related disorders, and stressors [5].

Initially, anxiety, followed by depression, often occurs in young people for the first time.

Studies have shown that about 20% of young people up to the age of 18 have a depressive episode, or an anxiety disorder.

The family also has an extremely strong influence in triggering depression. For example, marital conflict, comparing one's own child with others, thus making him feel useless [6].

Also, the level of education increases the possibility of a depressive episode. Some studies have shown that young people who do not pass the baccalaureate exam are more likely to have depressive episodes than young people who have passed the matriculation exam. -o from this point of view, but also due to financial shortcomings, related to what is presented in the previous paragraph. It was found, however, that a person with higher education, presents a lower risk. Another trigger for metal disorder in young people is represented by disadvantaged social groups, living in orphanages [2].

There are many young people who suffer from depressive episodes and overwork. As mentioned above, young people end up having depression, due to lack of a job, the other extreme is the stress at work and the constant exceeding of the 8 hours allocated [2].

Recent studies have shown that married life, ie marriage has a low risk of depressive episodes in young people in the couple, but also character mismatches bring a lot of stress, and thus depression [2].

Children and young people aged between 22-30 years, have a very high risk of personality disorders, due to the constant increase in problematic behaviors on the part of parents. part of over 6 behaviors with problems on the part of parents, shows a higher risk of depression than those who have witnessed 5 or less than 5 behaviors of this kind. Also in this category is the mother-baby relationship. They did a lot of experiments based on breastfeeding the baby. to the baby's disorders, and involuntarily, later to frustrations and inconveniences of any kind [2]. Also, the absence of a child in a couple or the desire to have a child can lead to severe depression in the man or woman depending on the degree of envy. This depression creates suicidal tendencies especially in women but more and more in men in rural areas who see this infertility as a family shame in Africa.

Often, the desires of any type of child, both personal and professional, are neglected, taking control, the parent considering that what he does is better for his own child, thus depriving him of the freedom to choose, to make mistakes, in order to be able to learn from the mistakes produced. Thus, children grow up with an insecurity in themselves, believing that they are unable to achieve something they like, always being controlled by the family [2].

Other factors involved in depressive manifestations, among others, are interpersonal relationships. Most often, young people find it very difficult to integrate into new groups, have difficulty in socializing, for fear of not laughing at others for statements These reactions are manifested by the desire for loneliness,

the avoidance of going out in a larger group of people, sadness, anxiety, and the introverted personality of the individual [2].

Panic and agoraphobia (it is the fear of new places, creating a state of helplessness) occurs after the age of 14 and the beginning of the age of 17. All these disorders lead, of course, to depression [7].

The increase in mortality due to both suicide and medical illness is also an important concomitant of end-of-life depressive disorder. Clinical depression is not part of normal aging, but it should be considered a treatable medical condition. The age of 65 as the onset of old age in geriatric medicine and psychiatry is arbitrary [8].

Mild cognitive impairment describes a link between normal cognitive function and dementia. People with mild cognitive impairment may experience difficulties with memory, language, and impaired thinking skills, memory loss, which eventually leads to disorders. major causes of depression [9].

Depression in older adults (65 years and older) is associated with emotional distress, increased health care costs, morbidity, increased risk of suicide, and mortality from others. Depression is common and remains a significant problem for older adults. Major depression has been identified by the World Health Organization as the fourth leading cause of illness. The cause of depression is poorly understood, but is associated with changes in neurochemicals in the brain. Risk factors for depression include genetics, medical conditions, functional decline, disability, social isolation, and psychosocial stressors. Many of these factors are common among older adults. Major depressive disorder (MDD) is a chronic form of severe depression with an episodic course that is prevalent in older adults. Major depressive disorder is characterized by a number of persistent signs and symptoms, regardless of age [10].

Although major depression is less prevalent in the elderly than in younger people, for whom the 12-month prevalence for major depression was 6.6% based on national data [10].

One of the most common chronic and severe mental illnesses, bipolar disorder (BD) is characterized by irregular acute episodes of depressive and manic / hypo-manic or mixed episodes. Patients with BD have a high risk of suicide. However, the neuro-psychological pathogenesis of BD remains unclear. Accurate and reliable biological diagnostic markers have not yet been discovered, with the majority of patients initially misdiagnosed, approximately 60% alone misdiagnosed with unipolar depression (UD) [12].

Using noninvasive and non-radioactive neuroimaging to detect structural and functional changes, previous studies have reported changes in molecular biology and genetic variability in patients with BD. Typically, these studies focused on the anterior cingulate cortex (ACC), prefrontal cortex, hippocampus, basal ganglia (BG), and amygdala. It is known that these areas have important roles in the

pathophysiology of emotion and cognitive processing. However, few studies to date have systematically investigated the role of the cerebellum in the mechanism and pathogenesis underlying psychiatric disorders [12].

Traditionally, the primary function of the cerebellum has been seen as voluntary coordinating movement, however a growing number of studies suggest that the cerebellum has a vital role in emotional generation and cognitive regulation [12].

Structural neuroimaging studies have identified low levels of cerebellar gray matter density or volume in patients with BD. While, another study that used magnetic resonance imaging (MRI) voxel-based morphometry found bilaterally increased the volume of matter in the cerebellum of patients with BD [12].

Also, we had a previous original study , which showed that patients diagnosed with depression is that most suffer from sleep disorders, the elderly are the majority, because of the suffering they had before, such as type II diabetes, cardiovascular disease, cancer. In young people, anxiety persists, which is manifested by sadness, anxiety, discomfort, hypertension, tobacco use, violent reactions to the authorities. Withdrawal from any type of narcotic, especially certain drugs (products derived from medicinal plants and modern drugs) after an addiction leads to depression in these people. Another conclusion observed in the study is that most patients with major depression come from rural areas, having only high school, or only high school. Most of the elderly are retired and the young are unemployed. In addition, what was observed from that study was that, in the elderly, depression is often associated with chronic pain, which occurs as patients get older. In the elderly, depression is more persistent in young people.

**Conclusions**

This work has described here some causes (biomarkers) of general depression and related disorders. These problems are mainly based on age and on observations made from previous experiences in this area of research. These results would be of great contribution to the relevance of these aspects for future studies on the management of depression on oxidative stress markers, antioxidants, plant extracts, etc.

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