

## Editorial

# Depression: Illness or Myth?

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## Editorial

Depression is often defined as a state of feeling sad [1]. It is a major cause of morbidity worldwide affecting 8-12% of the population worldwide and a substantial societal and economic burden [2].

There is a certain level of misconception in society regarding depression. Many believe that depression is a myth or an inability to cope or be resilient in the face of life's problems. Depression and its treatment are associated with stigma and as a result, people with depression do not take required help [3]. Furthermore, antidepressants are sometimes viewed as illicit drugs and therefore those who take antidepressants (the depression medication) may face disapproval from their families and social support systems. National Mental Health Association revealed that 43% of the Americans believe depression to be the result of weak will or a shortfall in one's character and unfortunately, many doctors subscribe to this theory [4]. Contrary to what people believe, depression is not a weakness or a character flaw but a serious medical condition. It is similar to many serious illnesses such as heart diseases, diabetes or even cancer and has many causes such as genetics, biological, environmental and socio-cultural factors. It is often overlooked that depression has a structural and chemical component involved regardless of other contributing factors [4]. Although exact causes of depression are unknown, it can develop suddenly even in the absence of a particular trigger or it may also be triggered by a life event such as a relationship problem, bereavement, redundancy, or a serious illness. Serious illnesses seem to cause emotional disturbance leading to higher levels of anxiety and depression and this could account for the increased prevalence of clinical depression in physically ill people [5,6].

Preclinical and clinical evidence suggests that low levels of neurotransmitters, especially, serotonin, nor epinephrine, and dopamine are associated with depression [7,8]. However, it is not clear if depression leads to low serotonin level or low serotonin level leads to depression. Monoamine Oxidases (MAOs), a mitochondrial bound isoenzyme, seem to play an important role in depression due to its role in the oxidative deamination of the neurotransmitters (serotonin, norepinephrine, dopamine) making these neurotransmitters less available for the required brain functions. Therefore, pharmacologic agents that make neurotransmitters adequately available in the brain are used in treating depression.

Regardless of the causes or triggers of depression, it is an extremely debilitating illness. It can encompass the sufferer and affect his/her

family, school, work and social life. Depression often manifests itself as a complex set of emotional and functional challenges, although its symptoms and severity vary from person to person and varies between the sexes. A person with depression may feel low energy and mood, low self-esteem, and loss of interest or pleasure in normally enjoyable activities. It could be a mild temporary episode of sadness or severe, persistent condition. Although depression can affect people of any age or gender, it has been reported that women and younger people between the ages 15-25 years are more prone to be affected [9-11]. Anxiety and depression are different from each other but may occur simultaneously in a person. Some people believe that anxiety manifests first, leading to the development of depressive symptoms whereas others believe anxiety is a prodromal stage, or a predictor of depression. It has been reported that anxiety increases the depression risk by threefold and stands out as a powerful causal risk factor [12-15].

Clinical depression is a severe form of depression and is also referred to as Major Depressive Disorder (MDD). It is characterized by a constant sense of hopelessness and despair. It is currently the second leading medical cause of long-term disability and the fourth leading cause of global burden of disease [16-19]. Depression is a serious cause of economic burden. It is associated with increased and high levels of health care use, impaired work performance, lack of productivity and it increases the costs borne by patients, insurance companies, and publicly funded health care agencies [20-22]. In 2012, mental illnesses cost Canada about \$20.7 billion by reducing the number of workers available in the labor force. This figure is growing at a rate of approximately 1.9 per cent every year and is expected to rise to \$29.1 billion annually by 2030 [23].

Depression exerts a negative impact on physical health of a person and is associated with serious functional impairment and poorer quality of life [24,25]. Those who affected by depression less likely engage or participate in disease prevention activities [26]. They often practice a sedentary lifestyle [27], therefore increasing their risk for obesity [28]. Smoking, alcohol and drug use is also frequent in people with depression [29-31]. Furthermore, they are less likely to be adherent to medical treatments [32]. As a result, people with depression often suffer from serious comorbidities that further worsen their quality of life and in turn increase the health care cost [32-34]. Adolescents with untreated depression have significant impairment in school performance, interpersonal relationships, risk of suicidal behavior and completion of suicide, risk of early pregnancy, occupational maladjustment, and impaired social and family functioning [35]. Mortality rates are high among people with depression. Approximately 4 % of the adults with a mood disorder die by their own hand and about two-thirds of suicides are preceded by depression [36]. Furthermore, the serious comorbidities and decrease in adherence to treatment regimens may increase the mortality rate in this population.

The treatment of depression has evolved rapidly in the

recent decades. Both pharmacotherapy and psychotherapy are considered equally effective in treating depression [37], however, pharmacotherapy remains a mainstay due to its greater availability, tighter quality control and cheaper cost. The pharmacological preparations that inhibit the MAOs and thus increase the availability of the involved neurotransmitters in the synaptic cleft are used in treating depression [38]. There are a variety of antidepressants available today, and the common ones are Monoamine Oxidase Inhibitors (MAOIs), Tricyclic Antidepressants (TCAs), and selective serotonin reuptake inhibitors (SSRI). Some studies have reported that antidepressants do not achieve full remission in more than 30–50 % of patients [39–41] while others have reported that they can alleviate symptoms in over 80 percent of those treated [42,43]. Combined therapy with medications together with psychotherapy seem to be superior in managing depression successfully [44].

Depression treatment varies from person to person. There is no depression treatment that works best for everyone. The best way to treat depression requires a multidisciplinary approach which includes educating the patient and their families, and tailoring the treatment (medications and other therapies) that suits the individuals and their families. It is important to choose the treatments that have the most favorable benefits, acceptability, acquisition, and are cost effective [39–41].

In spite of the advances made in this field, depression still remains a burden with increasing cost. Only less than half of people with depression get the help they need [20] because there are serious barriers in accessing help. These barriers include lack of education, stigma, lack of support from the family members, accessibility to care, physician barriers, and serious system barriers [45]. Depression often remains under detected, under diagnosed, and undertreated after considering all of these barriers. Therefore, it is important to shine light on depression awareness and depression prevention programs. Such programs should include educational opportunities for people to learn about depression, resources and care facilities for early detection with easier access. Educating the people about this serious illness may lessen the associated stigma and help people suffering from depression in seeking the needed help.

In conclusion, depression is a medical illness that requires serious and immediate attention. Although depression can be treated, many do not receive the required care. Therefore, easily deliverable depression awareness programs together with educational resources using social network may be effective in educating people about depression. Such programs can reach wider audience without geographic barriers, and may decrease the associated stigma, may aid in early diagnosis, and thus may decrease the societal and economic burden of depression.

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