

# **Child and Adolescent Depression – Theories, Prevention Programs, and Treatments**

## **Abstract**

Depression is one of the major causes leading to widespread mental illness and disability in the world. Studies report an increase in depressive symptoms among children and adolescents. The objective of this review is to analyze the theories of depression offering an overview of each, including the instruments that are commonly used to identify this disorder in children. It also focuses on the prevention programs and types of clinical treatment provided. The objectives of this report are also to evaluate the effectiveness of the different types of therapeutic measures used on children. In conclusion, it can be said that the results are murky and fail to deliver any strong evidence to long-term relief from depression. It is also crucial to add that several factors such as biological factors, negative relations (be it personal or social-cultural) may explain the growing amount of depression among children. As the treatments are becoming increasingly effective, in-depth analysis and study of biological, psychological, and social factors may help in the treatment of depression.

## **Introduction**

Only from the last two decades has depression in children been taken quite seriously. Children diagnosed with depression go against normal behaviours by pretending to be sick, refusing to go to school or avoiding interaction with other children. He may cling to his parents or worry that his parent may die. Even older children may have trouble going to school and might feel negative and misunderstood. Normal behaviors do not have strict definitions and they vary widely from one child to another and even from one childhood stage to another. Hence, it can be quite difficult to understand if a child's abnormal behavior is just a temporary phase or if the child is suffering from depression.

The World Health Organization (WHO) frequently gives out warnings about the increasing rates of depression that affects over 300 million people globally. A lot of depressive symptoms are characterized by a high risk of suicide (which is the second most common cause of death, especially for those aged between 15 and 29) (WHO, 2017). There are several studies conducted where patients use self-reports to evaluate severe symptoms of depression. For instance, the Children's Depression Inventory (CDI) (Kovacs, 1992) and the Children's Depression Scale (CDS) (Land and Tisher, 1978) both show dominance of depression in children.

The main classification of mental disorders is the Diagnostic and Statistical Manual of Mental Disorders, DSM-5 (American Psychiatric Association, 2014), published by the American Psychiatric Association, which has become a bookmark reference in clinical practice. Another tool is version 10 of the International Classification of Diseases (ICD-10, 1992), published by WHO that pertains to classifying and coding all diseases even though its initial aim was to chart mortality rates. The new ICD-11 classification will be presented this month (May 2019) to the

Member States at the World Health Assembly and is expected to come into effect on January 1, 2022 (World Health Organization (WHO), 2018).

Throughout the years, there have been various theories of depression. Most common are the biological and psychological theories that try to explain the origin of this mental disorder. There are different perspectives that can trigger depression – endocrine disorders (Birmaher et al., 1996), alterations in brain structure (Whittle et al., 2014), or sleep-related disorders (Siversten et al., 2014). Psychological theories have tried to explain depression based on psychoanalysis especially in terms of attachment theories – cognitive models (Seligman, 1975), or self-control model (Rehm, 1977), stressful life incidents (Reinherz et al., 1993) and sociocultural model (Lorenzo-Blanco et al., 2012).

Measuring depression precisely and accurately is a huge challenge upon which psychology has focused all its attention in diagnosing it in the childhood and adolescent stages. Although there are several diagnostic instruments that are used to evaluate depression in the adolescent and adult stages, diagnostic tests for depression in children is still evolving.

The World Health Organization (WHO) reports that school programs, interventions for parents and the elderly population have helped in reduction of depression. However, these programs mainly target adolescents, with only a few that focus on children under the age of 10.

The treatment of depression is extremely critical, especially for children. That said, in 2016, the WHO and the World Bank joined hands to announce that they are investing in treating depression and anxiety. This has led them to get four-fold returns as this pathology cost the global economy several US dollars every year. They also claim that humanitarian needs urge the need to broaden the present therapeutic options. As a result, the myriad theories of depression has given rise to several types of treatments (psychotherapeutic, cognitive-behavioral, interpersonal, behavioral, etc.) that are being researched with high rigor.

Based on the various aspects pertaining to depression mentioned above, the current study aims: (1) to analyze depression offered by the two main mental disorder classifications (DSM-5 and ICD-10); (2) to provide a complete of the main theories of depression; (3) To outline the child and adolescent depression evaluation instruments commonly used; (4) to provide an overview of child and adolescent depression prevention programs in the school environment; and (5) to describe the most scientifically difficult and effective clinical treatments for this mental condition.

Depressive vulnerability in children is mainly due to psychopathology (anxiety and disruptive disorders) is an identified risk factor that causes depression. Unhealthy marital life, poor communication, and dysfunctional parenting practices are also a few reasons that cause depression in children. High emotionality, meaning a tendency to get easily offended, upset with great intensity can also cause an increased risk for major depression. In France, therapists have witnessed growing demand from families with the concerned risk of parent-child

transmission of depressive vulnerability and taking appropriate measures to identify the symptoms at an early stage and prevent further risks.

## The Construct of Depression – DSM-5 and ICD-10

### Research

The database used to carrying out the searches are PubMed, NIMH, PsycINFO, Scopus, Science Direct, Google Scholar, and Web of Science. As the keyword is depression, the search for information also includes other series of keywords such as children, adolescence, prevention programs, and treatment.

### DSM-5 and ICD-10

Depression is a key factor that features in both of these two global categories – DSM-5 and ICD-10. As mentioned earlier, the ICD-11 is expected to come into effect on January 1, 2022. The new classification will enable many countries to plan its implementation and train the practitioners accordingly (World Health Organization (WHO), 2018).The publication by WHO collaborators (Luciano, 2017) suggests that ICD-11 will include mood disorders within the mental and behavioral disorder category. Nevertheless, until the final version is published, this information cannot be verified.

The following two categories (DSM-5 and ICD-10) provide different types of depressive disorders. The WHO includes depressive disorders in the mood disorders category. However, this review focuses only on Sections F32, F33, F34, and F38 that include the most common depressive disorders.

Depressive disorders according to the DSM-5 and the ICD-10.	
DSM-5	ICD-10
Depressive disorders	Mood (affective) disorders F32, F33, F34, and F38
<ul style="list-style-type: none"> <li>• Disruptive mood dysregulation disorder</li> <li>• Major depressive disorder</li> <li>• Persistent depressive disorder (dysthymia)</li> <li>• Premenstrual dysphoric disorder</li> <li>• Substance/medication-induced depressive disorder</li> <li>• Depressive disorder due to another medical condition</li> <li>• Other specified depressive disorder</li> <li>• Other unspecified depressive disorder</li> </ul>	<ul style="list-style-type: none"> <li>• Single episode (F32)</li> <li>• Recurrent depressive disorder (F33)</li> <li>• Persistent mood (affective) disorders (F34)</li> <li>• Other mood (affective) disorders (F38)</li> </ul>

As per DSM-5, depressive disorders have one common feature. This includes sadness, empty or irritable mood which is accompanied by somatic and cognitive changes that can significantly affect the person's capacity to function (DSM-5). If ignored for a long time, it can become a serious health problem and trigger moderate-to-severe intensity. One major consequence of depression is the risk of suicide which, as per the World Health Organization (WHO) 2017, is the second most common cause of death among people aged between 15 and 29.

A new symptom provided in the DSM-5 in its section of depressive disorders is the Disruptive mood dysregulation disorder (which should not be diagnosed before the age of 6 or after the age of 18). Signs of this disorder include severe recurrent temper outbursts that are manifested verbally (e.g. verbal rages) and/or behaviorally (e.g. physical aggression toward people or property). This occurs as a result of frustration. In order to be considered for diagnosis, criteria include that the outbursts must be inconsistent, say occur three or more times per week for at least a year at different settings (such as home or school) and be severe in at least one of these settings. This disorder falls under DSM-5 on the basis of treating children with chronic persistent irritative behavior as opposed to other disorders, specifically pediatric bipolar disorder. The occurrence of this disorder is estimated at between 2 and 5% with male children and teenage boys as compared to female children.

### Major Depressive Disorder

Major Depressive disorder can be characterized by a depressed mood most of the day, in fact, every day. However, in children and adolescents, this mood behavior is mostly irritable than depressed. Signs of this disorder includes loss of interest or pleasure in any given activities, significant weight loss or gain, insomnia or hypersomnia, agitated or retarded behavior, fatigue, loss of energy, excessive guilt, feeling of worthlessness, inability to think, focus or concentrate on anything, recurring thoughts of death, suicidal intentions without any specific plan or even an attempt. In the US, the 12-month prevalence is ~7%. It is three times higher than those aged between 18 and 29 than among those aged over 60. Also, the rates for women are ~1.5-3 times higher than men.

### Persistent Depressive Disorder (Dysthymia)

Persistent Depressive Disorder (Dysthymia) is a consolidation of DSM-5-defined chronic major depressive disorder and dysthymic disorder. Signs include depressed mood behavior throughout the day, for at least 2 years. In children and adolescents, signs include irritable mood and duration must be at least 1 year. In fact, the person with this disorder must also present two of the following symptoms: poor appetite or overeating, insomnia or hypersomnia, low energy or fatigue, poor self-esteem, low concentration or difficulty in making decisions and feelings of loneliness. This prevalence of this disorder in the US is 0.5%.

### Premenstrual Dysphoric Disorder

Criteria for diagnosis of premenstrual dysphoric disorder states at least five symptoms must be present during the last week before the start of menstruation. However, individual will be able to feel better a few days later with all its symptoms disappearing completely or almost completely during the week after menstruation. Common characteristics include affective lability, intense irritability or anger, or increased interpersonal conflicts, depressed mood or over-excitement and anxiety symptoms combined with behavioral and somatic symptoms. The prevalence of this disorder is 1.8% of women with no function impairment while 1.3% of women with functional impairment and other symptoms of mental disorder.

#### Substance/Medication-Induced Depressive Disorder

Substance/Medication-Induced Depressive Disorder triggers symptoms such as major depressive disorder and induced by the consumption, inhalation or injection of a substance. The symptoms persist even after the effects of intoxication or withdrawal have disappeared. As some medications may cause depressive symptoms, it is crucial to determine if the symptoms were caused due to the drug or whether the depressive disorder simply occurred when the medication was taken. The prevalence of this disorder in the United States is 0.26%.

#### Depressive Disorder Due to Another Medical Condition

Depressive Disorder due to another medical condition is defined by the occurrence of a depressed mood and a loss of interest in all activities whilst dealing with another medical condition. The DSM-5 does not offer any information about the prevalence of this disorder.

Another category *Other specified depressive disorder* is used when the symptoms appear and cause significant distress or impairment in one's social, occupation or other areas of function. However, it does not abide by all the criteria of any depressive disorder and the clinician opts to communicate the specific reason for this. In the *Other unspecified depressive disorder category*, the difference is that the clinician will prefer not to clarify the reason why the presentation fails to abide by the criteria of a particular disorder. The clinician will include presentations about which there is insufficient information thus calling for a more specific diagnosis.

In the ICD-10 section, depressive disorders are included in the mood disorders category. The following disorders are analyzed below: single depressive episode, recurrent depressive disorder, and persistent mood (affective) disorders.

#### Single episode (F32)

Single depressive episode is distinguished between depressive episodes of varying severity; mild, moderate, and severe without psychotic symptoms. Characteristics common to all of them include low mood levels, low energy levels, and decrease in daily activity. There is a loss of interest in formerly pleasurable interests, lack of concentration, increased lethargy, even in activities that require minimal effort. Other signs include a change in appetite, disturbed sleep,

low self-esteem and self-confidence, and guilty or worthlessness feeling. These symptoms may vary from day to day.

Even in the mildest form, 2-3 symptoms may be available while the patient is able to carry on with the daily routines. In the moderate episode, four or more of the above symptoms are present making it difficult for the patient to carry on with their daily activities. In the most severe form, several signs appear especially low self-esteem, worthlessness or feeling of guilt. Even suicidal thoughts and acts are common and somatic symptoms are present. If the depressive episode is combined with psychotic symptoms, then it can cause hallucinations, delusions, psychomotor retardation, or stupor that are so severe that even ordinary activities seem impossible. In fact, there may be a danger to life as the person may commit suicide, or succumb to dehydration, or starvation.

#### Recurrent depressive disorder (F33)

Recurrent depressive disorder is characterized by repeated episodes of depression that are similar to the signs mentioned above for single depressive episodes without mania. There may also be momentary episodes of mild mood elevation and overactivity (hypomania) immediately after a depressive episode. This may be caused due to antidepressant treatment. Severe forms of the disorder can be similar to manic-depressive depression, vital depression, melancholia, and endogenous depression. The first episode may occur at any age – childhood to old age. At times, the episodes can last for a few weeks to months. Recurrent depressive disorder can be mild or moderate but there is certainly no history of mania.

#### Persistent mood (affective) disorders (F34)

Persistent mood [affective] disorders can be persistent and fluctuating in which the majority of the episodes cannot be deemed sufficient enough to be diagnosed as hypomanic or mild depressive episodes. They can last for many years affecting the patient's normal life and causing considerable distress and disability. This section also includes cyclothymia and dysthymia. Cyclothymia is a constant instability of mood that triggers numerous episodes of depression and mild elation. However, none of these are prolonged to be justified for a diagnosis of bipolar affective disorder or recurrent depressive disorder and is commonly found among the relatives of patients with bipolar affective disorder and some with cyclothymia. Dysthymia is a chronic depression of mood that can last several years. It may not be severe or individual episodes do not prolong enough to justify a diagnosis of mild, moderate, or severe recurrent depressive disorder.

#### Other mood (affective) disorders (F38)

Lastly, other mood (affective) disorders are any mood disorders that do not fall under the categories mentioned above mainly due to low severity or duration. They may be single, recurrent only for brief moments or specified episodes.

It is quite evident that the DSM-5 and the ICD-10 are not specific for either adult or child depression. However, when you include disruptive mood dysregulation disorder, the DSM-5 does take into account that children and young people aged between 7 and 18 may express their distress in many ways such as chronic, severe and recurrent irritability that are manifested verbally or in behavior. Similarly, major depressive disorder in children can be irritable than depressed. However, no such distinctions are found in the ICD-10 which may lead to a wrong indication that signs/symptoms of child and adolescent depression are similar to adult depression.

## **Evaluation Instruments**

Many different evaluation instruments are used to measure a child and adolescent depression. The ones most commonly used in scientific literature is Children's Depression Inventory-CDI (Kovacs, 1985), which itself is based on the Beck Depression Inventory-BDI (Beck and Beamesderfer, 1974). Hence, it is based as per Beck's cognitive theory of depression. The Children's Depression Scale-CDS (Lang and Tisher, 1978) was designed as per the same theoretical line but it was created exclusively to gauge child depression. Chorpita et al., (2005) say that the CDI measures a wider concept of negative affectivity than focusing on depression as a separate concept and that it may be useful for screening trait dimensions or personality features. Other instruments like the Revised Child Anxiety and Depression Scale-RCADS (Chorpita et al., 2000) can be used to measure a specific clinical syndrome.

While it is vital to train teachers, it is equally important to provide them with instruments that help them to assess the students. Though the instruments deliver different results, teachers too tend to underestimate their students' depressive symptoms (Jaureguizar et al., 2017).

## **Children's Mental Health Policy**

An estimated 11% of American children deal with mental health impairment. Government policies for children's mental health function in two ways; by affecting health insurance for children and by funding services directly. These policies over the last fifteen years combined with scientific advances have brought a dramatic improvement in child mental health. Medicaid is health care coverage which is an initiative by the Federal Government and State Government. Apart from adults, Medicaid covers children between the ages of 6-19 who are suffering from anxiety, depressive disorders or any other mental health condition. Many children are eligible for Medicaid even if they do not avail their State's Children's Health Insurance Program (SCHIP). This is because SCHIP criteria tend to be much broader.

## **Stakeholder recommendations for Children's Mental Health**

Stakeholders in child health should encourage children to explore entertainment opportunities apart from television viewing or smartphone usage as it has shown to increase signs of

depression. Apart from family groups, academic institutions, government agencies, and mental healthcare providers can aid assistance to prevent depression in children.

List of recommended stakeholders include:

- Mental Health America
- Native American Health Center
- National Health Law Program
- Mental Health Services Oversight & Accountability Commission

It is important to carefully plan and strategize in order to address the following concerns: depression, behavioral therapy, wellness, recovery, and resiliency.

The respective counties and states' organization can also be teamed up to help children deal with depression as an initiative towards the betterment of future generations.

## **Conclusion**

This review aims to shed some light on the growing child and adolescent depression. From an overall review and its theories to evaluation instruments, all the aspects are linked: how the concept is defined, how to measure it and the key measures to prevent its recurrence by treating it effectively.

The review of child and adolescent depression prevention programs reveals that majority of the treatments include a cognitive behavioral approach with contents including social skills and problem-solving training, emotional education, cognitive restructuring, and strategies for coping with anxiety. It is interesting to say that child depression can be understood by the adult version of the pathology. The fact that universal prevention programs for children deliver only modest results makes us question why they do not seem to be so effective in preventing this pathology if their inclusion is so crucial. The probability is that there are many factors connected to the prevention programs which will affect their efficacy such as who implements the program and their prior training, characteristics of the target group, how the sessions are run, evaluation of sessions and lastly if the proposed goals are actually achieved.

Also, it is important to note that many prevention programs in school, the intervention focuses on the students than taking a holistic approach as recommended by authors such as Greenberg et al. (2001). But if depression is multi-factorial and the fact that factors that influence are found not only in social (school) environment but also in the family, shouldn't prevention be also multi-factorial?

To conclude, it is to be said that it involves more work to fully understand child and adolescent depression, its causes and come up with evaluation instruments and prevention and treatment

programs. Given the important health outcomes of this disorder, we need to make a serious and rigorous effort to expand our research in this field.

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