Affective Disorders — Definition and Treatment

See online here

Affective or mood disorders are characterized by various types of psychiatric diseases that can be disruptive to a patient's life. They can involve abrupt onsets of manic or depressive episodes of mood changes and often combinations of the two. Patients usually experience depressive episodes of agitation, sleep disturbance, eating disturbances, lack of interest and feelings of worthlessness or guilt. The mania is usually associated with violence to others. Psychotherapy, medical treatment or even electroconvulsive therapy in extreme cases are the mainstay treatment of affective disorders.

Definition of Affective Disorders

Affective disorders are **episodically occurring psychiatric diseases**. They include several psychological disorders characterized by abnormal emotional states, especially major depressive disorder, dysthymia, and bipolar disorder. The major types of affective disorders include depression, bipolar disorder, and anxiety disorder.

Based on the quality and the direction of mood amplitude, affective disorders are categorized into unipolar and bipolar disorders. Unipolar disorder refers to the deflection of mood in one direction only, usually downwards (depressive episodes). Bipolar disorder, however, includes not only downward deflection but also manic or hypomanic episodes,

which are characterized by an extreme elevation in mood level. Therefore, bipolar disorders are characterized by 2 different mood deflections.

In addition to the determination of the direction(s) of mood deflection, the frequencies (once vs. recurrent) of mood levels are reported, as well as their severity (mild, moderate or severe). **Affective disorders are categorized in the International Classification of Diseases (ICD)-10 into:**

- F30. – Manic episode
- F31. – Bipolar affective disorder
- F32. – Depressive episode
- F33. – Recurrent depressive disorder
- F34. – Persistent affective disorder
- F38. – Other affective disorder
- F39. – Unspecified affective disorder

In addition to the ICD-10 system, the American DSM (Diagnostic and Statistical Manual of Mental Disorders) is also an important source of reference for the classification of psychiatric diseases, especially for the understanding of current research. It is absolutely necessary to be familiar with the DSM.

The following table provides a comparison of the classification of affective disorders in the DSM-V and ICD-10:

Major depressive disorder	One or more major depressive episodes
Dysthymic disorder	Less intense and chronic depression for at least 2 years
Bipolar disorder	Cyclic movements of manic and depressive mood states
Bipolar I **Bipolar II**	• One manic and mixed episode • One major depressive episode and one hypomanic (no manic/mixed)
Cyclothymic disorder	Similar to bipolar disorder but the moods are less extreme

Unipolar Affective Disorder

Unipolar affective disorders are all depressive diseases. They include single depressive episodes, recurrent depressive disorder, and dysthymia. In fact, purely manic symptoms need to be considered unipolar as well, which is highly uncommon. Therefore, manic episodes are usually attributed to bipolar disorder.

The Depressive Episode as an Acute Condition

Symptoms and Classification

The depressive episode describes the presence of depressive symptoms. The diagnosis according to DSM-V as well as ICD-10 is based on major and minor criteria including **symptom presentation over a period of at least 2 weeks, unusually negative mood levels and loss of joy and interest during most of the day**.

The severity of the episode depends on the number of symptoms occurring simultaneously. In the ICD-10, the severe depressive episode may or may not be accompanied by psychotic symptoms. Depressive symptoms are manifold and include changes in cognitive, behavioral, and somatic levels in addition to affective symptoms.

DSM-V

At least 5 of the following symptoms are present over a period of at least 2 weeks. In addition to '**depressed mood'** or **'markedly diminished interest', a depressive episode is characterized by at least 3 of the following symptoms:**

- Significant weight change or change in appetite
- Insomnia or hypersomnia
- Psychomotor agitation or retardation
- Fatigue or loss of energy
- Feeling of worthlessness or guilt
- Diminished ability to think or concentrate, or indecisiveness
- Thoughts of death or suicide, suicide plans or attempts

Negative criteria:

- Criteria that do not match those of mixed bipolar disorder
- Symptoms causing clinically significant distress and impairment
- Symptoms not due to the direct physical effect of substances or a medical condition
- Symptoms unrelated to bereavement

ICD-10

The ICD-10 criteria for a depressive episode include at least 2 (or 3 for a severe episode) of the following symptoms over at least 2 weeks:

- Depressive mood that is significantly unusual for the affected person, for most of the day, almost every day, and mostly unresponsive to circumstances
- Loss of interest and enjoyment of activities, which are usually pleasurable
- Reduced energy or increased fatigue

Plus at least 2 of the following symptoms:

- Loss of self-esteem or self-confidence
- Unreasonable self-accusations or severe and unreasonable feelings of guilt
- Recurrent thoughts of death or suicide; suicidal behavior
- Complaints or evidence of diminished ability to think or concentrate, or indecisiveness
- Psychomotor agitation or retardation (subjective or objective)
- Disturbed sleep of any kind
- Loss of appetite or increased appetite with related weight changes

Classification of severity:

- **Mild:** 2 major criteria and at least 2 minor criteria
- **Medium:** 2 major criteria and at least 4 minor criteria
- **Severe:** 3 major criteria and at least 5 minor criteria

Epidemiology of Depressive Episodes

The first depressive episodes usually occur in young adults between the ages of 25 and 35 years. It is more prevalent in females than in males. The rate of depressive episodes does not differ markedly by race. If left untreated, an episode lasts for roughly 3–4 months and then remits completely in 70–80% of the cases. In the other 20–30%, residual symptoms remain for months or even years.

The more frequently a patient suffers from depressive episodes, the greater the probability of persistent symptoms. Point prevalence of depressive symptoms is approx.

8.1% (women: 10.2%; men: 6.1%).

Recurrent Depressive Disorder

Unfortunately, the first depressive episode is very often not the only one. One-third of the patients experience clearly definable episodes of major depression repeatedly. In another third, the episodes are chronic and occur with only partial or no remission.

The more frequently the episodes occur, the greater the probability of recurrence. It is estimated that 11.6% of adult German population suffers from a depressive disorder at some point in their lives (women, 15.4%; men, 7.8%). Annually, depression affects more than 15 million American adults, or about 6.7% of the U.S. population aged 18 years and older. The median age at onset is 32.5 years. Persistent depressive disorder or PDD (formerly called dysthymia) is a form of depression that usually continues for at least 2 years. PDD affects approx. 1.5% of the U.S. population aged 18 years and older in a given year (approx. 3.3 million American adults). The median age of onset is 31.1 years.

Dysthymia (or PDD)

Dysthymia is not a complete manifestation of major depression, but symptoms present in a less severe form over a period of at least 2 years, for e.g., a **continuously subdued mood and loss of joy and interest, but retention of occupational functionality**. In addition to dysthymia, patients may manifest ‘actual’ depressive episodes, and is known as double depression.

Epidemiology of PDD

The prevalence of PDD in life is estimated at 2.5% to 6%. Point prevalence in 2011 was estimated at 2.0%. PDD often begins before the 20th year of life and lasts 5 years on average.

Pathogenesis of Unipolar Affective Disorders

Unipolar affective disorder is not triggered by a single factor. It is rather an interaction of numerous predisposing factors and events. The diathesis-stress model is the standard explanatory model, which explains the interactions between different factors (biological, psychosocial, and psychodynamic) and disease development.

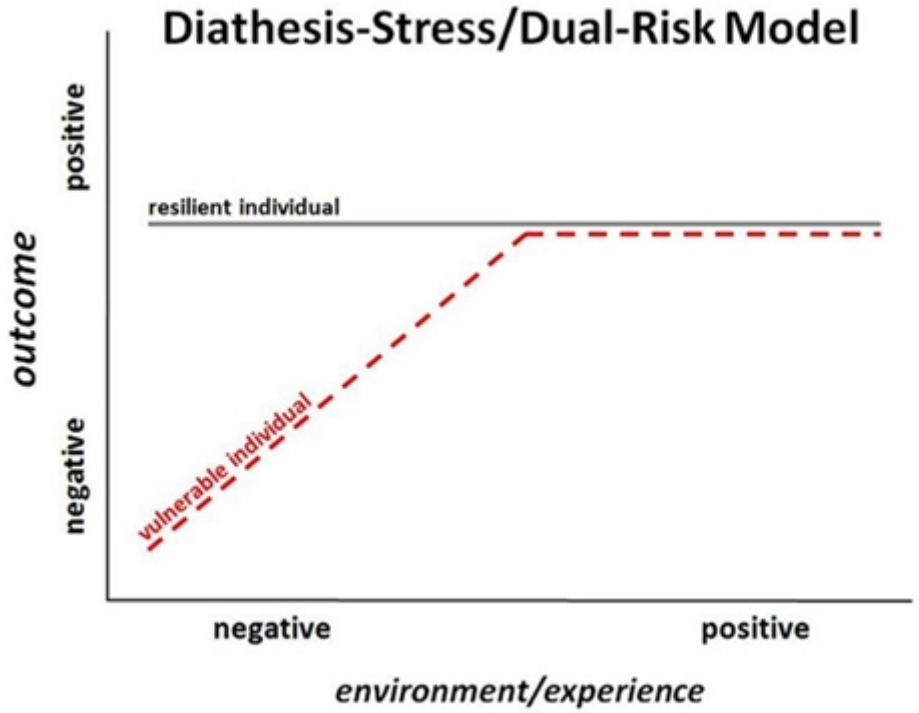

Image: Diathesis-Stress/Dual-Risk Model. By mpluess, License: Public Domain

Genetic predisposition has a moderate influence on the development of unipolar affective disorder. However, this relationship is not clear in chronic unipolar disorder such as PDD. Several elements play a role, such as disorders of the neurophysiological system, a strong activation of the hypothalamus-pituitary-adrenal axis (HPA axis) with increased release of cortisol, neurobiological changes (decreased volume of orbitofrontal cortex and hippocampus, and elevated activity of the amygdala), reduced phases of deep sleep, and longer nights (seasonal affective disorder, 'winter blues').

Psychosocial factors that trigger depressive symptoms include **stressful events, individual susceptibility, personality, and social support**. Psychodynamic models assume early development and permanence of dysfunctional schemes and beliefs or acquired helplessness, which leads to negative thought spirals and beliefs characterizing depression.

Further risk factors for the development of a depressive episode include age, gender, and socio-economic status. For example, the highest prevalence occurs in the age group of 18–29 years and in subjects with low socioeconomic status, according to a German study on adult health.

Generally, **women are affected almost twice as much as men**. Further risk factors include stressful life events (for e.g., trauma), living single, and pre-existent comorbidities. Comorbidities can be psychic (e.g., anxiety or substance disorders) and somatic in nature (diabetes mellitus, CHD).

There is no specific cause-effect relationship since depressive symptoms can be both the cause and the consequence of other diseases.

Diagnostics by Primary Care Physician

If you are not a psychiatrist, it is not always easy to recognize depression. Often, patients report vague physical symptoms such as back and/or abdominal pain, suggesting

‘somatic depression’.

According to UptoDate, the following are the American national guidelines to use:

- Mood consistent with depression, most of the day
- Anhedonia in most or all activities
- Change in sleep pattern
- A 5% change in weight
- Psychomotor retardation
- Decreased energy
- Decreased concentration
- Thoughts of worthlessness
- Suicidal ideations

There must be 5 of these symptoms present for two consecutive weeks with one symptom being either depressed mood or anhedonia.

If, for example, referrals to different medical specialists or consultations for management of symptoms that cannot be explained somatically become overly frequent, the general practitioner should consider depression. The practitioner should carefully inquire about mood and energy levels and general ability to experience joy in the past 4 weeks.

Also, **easy screening questionnaires can be used to assess the presence of depressive symptoms.** Even if the patient does not experience a negative mood, it is generally possible that inexplicable somatic symptoms are caused by depression. This phenomenon is called masked depression.

In approximately 1/3 of patients with unipolar disease, the diagnosis is changed to bipolar disorder during disease progression. Bipolar disorder II can be easily missed and its frequency may be underestimated because hypomanic symptoms are experienced as pleasant, and are therefore not reported by the patient himself or are not evaluated.

Bipolar Disorders

Symptoms and Classification

Bipolar disorder is also an affective disease. It is characterized by a **recurrent change of mood between the extremes of (hypo)mania and depression**. It cannot be influenced voluntarily and occasionally both extremes can be present at the same time (mixed episode). Symptom-free (euthymic) intervals exist between individual episodes.

If the affective episodes change in quick sequence with at least 4 definable episodes in a year, it is called rapid cycling.

The ICD-10 describes a manic episode with **elevated, elated, or irritable mood**. It is perceived by the affected person as a significantly abnormal mood level persisting for at least 1 week (unless hospitalization is necessary).

The bipolar disorder is characterized by additional features (at least 3–4 if the mood is only irritable) and severely disturbed daily routine. For example, manic symptoms include increased activity or motor restlessness, increased talkativeness, flight of ideas, or a subjective feeling of rushing thoughts, loss of normal social inhibition, which leads to inappropriate behavior, decreased need for sleep, inflated self-esteem or megalomania, distractibility or continuous change in activities and plans, daring or reckless behavior

whose risks are not recognized by the affected person, and increased libido or sexual indiscretion.

During mania, the affective disorder is characterized by less sleep and feelings of exaggerated self-confidence, irritability, aggression, self-importance, impulsiveness, recklessness, or in severe cases delusions or hallucinations.

In hypomania, these symptoms are less extreme and distinct, but noticeably ‘different’ than normal for the affected patient and (even more often) for the environment. Eventually, the mood shifts and the patients slide into a depressive episode.

Compared with the ICD-10, the DSM differentiates between bipolar disorder I, bipolar disorder II, and cyclothymia. In contrast, the ICD-10 only covers the current episode.

Bipolar disorder I is characterized by the **occurrence of 1 or several manic episodes and episodes of major depression** (= mania + depression).

Bipolar disorder II is characterized by the **occurrence of recurrent episodes of alternating major depression and hypomanic episodes** (= depression + hypomania).

Cyclothymia describes a milder form of bipolar disorder. Similar to dysthymia, **changes in the mood level are observed over a longer period of at least 2 years**. However, the criteria for a (hypo)manic or depressive episode are not completely met.

Epidemiology of Bipolar Disorders

The lifetime prevalence of bipolar disorders is estimated to be 3.9–4.4% (bipolar disorder I, 1 %; bipolar disorder II, 1.1%). The onset of bipolar disorders mostly occurs in teenage or young adulthood. The gender proportion is balanced for bipolar disorder I. Bipolar disorder II is more frequent in women.

Even a great event can turn into a disease trigger

The pathogenesis of bipolar disorders is not completely understood. A multifactorial genesis is assumed. Similar to unipolar disorders, the diathesis-stress model provides a basis for the understanding of bipolar disorders.

Genetic disposition increases the vulnerability for disease development. In addition, environmental factors such as biographical events, coping strategies, drug consumption, stress, and other factors play a role in the etiology of the disease.

Stressors, which are not necessarily of a negative nature, can trigger the initial phase. For example, the birth of a child is often a trigger of bipolar disorders in women. Subsequent phases, however, often occur without a relatable event.

Seasonal Affective Disorder (SAD)

Seasonal affective disorder (SAD) is a syndrome typically used to describe a recurrent, seasonal pattern of depressive episodes. SAD may also describe other affective episodes (mania or hypomania) that occur in a seasonal pattern.

Epidemiology

SAD is considered as a relatively common disorder. The prevalence of SAD tends to vary across populations. In the United States, the prevalence ranges from an estimated 0.4%

to as high as 10% depending on the methodology used. SAD affects women more commonly than men (4:1 ratio) and appears to decrease in prevalence with age.

Symptoms

Winter-onset SAD is more common (often characterized by atypical depressive symptoms including hypersomnia, increased appetite, and craving for carbohydrates). However, SAD in spring/summer is more frequently associated with insomnia and loss of appetite.

Prognosis

It has been estimated that 67% of those diagnosed with SAD will experience recurrence the following winter, and after 5–11 years 22–42% of patients will still manifest SAD, 33–44% will develop non-seasonal depressive episodes, and remission is seen in approx. 14–18% of patients.

Mood changes determine the diagnosis

Diagnosis of bipolar disorders can only be established via longitudinal observations if at least 2 different definable affective episodes occur over a period of time. The diagnosis of bipolar disorder I is relatively easy due to its conspicuous manifestations.

A few patients with unipolar depression may fit the description of bipolar disorder II. However, the assessment of hypomanic symptoms is difficult because the symptoms are experienced as pleasant by the patient and are seldom reported spontaneously.

Comorbidity of Affective Disorders

Unipolar and bipolar disorders are frequently accompanied by other mental and somatic diseases. Frequent psychiatric comorbidities include anxiety disorders, substance abuse, and addiction, and impulse control disorders.

At the somatic level, diseases of the cardiovascular system and the endocrine system such as diabetes mellitus and metabolic syndrome are frequently observed. However, musculoskeletal diseases and migraine often accompany the affective disorder.

Mortality due to cardiovascular diseases is doubled or tripled in patients with affective disorders. Generally, the mortality due to increased suicide risk is increased. It is estimated that approx. 15% of affective patients commit suicide.

Treatment of Affective Disorders

Treatment goals for unipolar and bipolar disorders differ in several aspects. Symptom reduction is the priority of treatment in patients with unipolar affective disorders whereas elimination of episodes is the goal of treatment in bipolar affective disorders, which entails mandatory medication. However, a milder unipolar depressive episode can be treated with alternative measures.

The treatment objective for unipolar depressive disorders is **symptom reduction and complete remission** via occupational and psychosocial rehabilitation as well as restoration of mental balance. Prevention of recurrence is another objective. Important pillars of treatment for unipolar affective disorders include medication with antidepressants and psychotherapy.

Different agents are used as antidepressive medications. The most important therapeutic

agents include tri- (and tetracyclic) antidepressants (TCA), selective serotonin reuptake inhibitors (SSRI), selective serotonin and noradrenaline reuptake inhibitors (SSNRI), and selective noradrenaline reuptake inhibitors (SNRI).

Further antidepressive substances are, for example, selective noradrenaline dopamine reuptake inhibitor bupropion or the serotonin 5-HT2C-receptor-antagonist agomelatine.

Patience is needed to experience the full therapeutic benefit of antidepressant treatment, which is complicated by **side effects during the initial phase**. Patients during this difficult phase of treatment should be managed carefully to reduce the risk of abandoning therapy.

The most prescribed antidepressants belong to the class of SSRIs represented by fluoxetine, citalopram, escitalopram, fluvoxamine, paroxetine, and sertraline. SSRIs increase the amount of serotonin in the synaptic cleft via inhibition of reuptake transporters, which **often leads to gastrointestinal complaints like nausea and sexual function disorders**. However, they are generally associated with fewer side effects than the tri- and tetracyclic antidepressants since they do not block any other receptors.

TCAs **inhibit the reuptake of serotonin and noradrenaline from the synaptic cleft**. Additionally, they block several receptors (e.g., central and peripheral cholinergic, histaminergic, or alpha1-adrenergic receptors), which can cause a series of side effects, such as cardiovascular abnormalities (orthostatic hypotension, stimulus conduction disorders, and tachycardia). Representatives of TCAs include amitryptiline, imipramine, and clomipramine.

SSNRIs **inhibit the reuptake of serotonin and noradrenaline,** resulting in increased concentrations of serotonin and noradrenaline in the synaptic cleft. The known side effects include loss of appetite, nausea, constipation, dry mouth, sexual function disorders, restlessness, sleeping disorders, and hypertension at higher dosages. Representatives of SSNRIs are venlafaxine and duloxetine.

SNRIs **block the reuptake of noradrenaline from the synaptic cleft and therefore, increase its concentration**. Side effects are triggered by the noradrenergic effect and involve increased dryness of mouth, sexual dysfunction, and sleeping disorders. A common representative of SNRIs is reboxetine.

The overall objective of treating bipolar disorders is the elimination of episodes. Further goals are **maintenance and restoration of optimal psychosocial function**. Long-term medication is absolutely necessary for the treatment of bipolar disorders, which is supplemented by further treatment measures such as social therapy. A distinction is made between acute treatment and phase prophylaxis.

The goal of acute treatment is to **decrease symptoms associated with manic, hypomanic, depressive, or mixed episodes** by administering the appropriate medications, such as antidepressants, typical and atypical neuroleptics, mood stabilizers, and benzodiazepines.

Typical and atypical neuroleptics play an important part in treating the manic phase and include quetiapine, clozapine, or risperidone. Furthermore, benzodiazepines such as lorazepam are used to curb the manic behavior. Antidepressants are used to treat an acute depressive episode.

The intake of an antidepressant may trigger the so-called ‘switch’ during which the

patient experiences mood shifts from an acute depressive episode to an acute manic episode. Predisposing medications during a switch include TCA and SNRI.

In phase prophylaxis, the renewed occurrence of an episode is avoided or delayed. Besides mood-stabilizing medications such as lithium, valproic acid, carbamazepine, and lamotrigine, other therapeutic procedures such as psychotherapy or psycho-education can be utilized. The personal environment is always important during treatment since relatives often recognize the first symptoms earlier than the affected person himself or herself.

Psychotherapeutic Methods

The efficacy of cognitive behavior therapy (CBT) in the treatment of affective disorders is well-known. CBT links thoughts, feelings, and behavior at a more conscious level. The goal is to monitor and correct dysfunctional attitudes and promote activity gradually. In the treatment of bipolar affective disorders, CBT can facilitate compliance with medications prescribed.

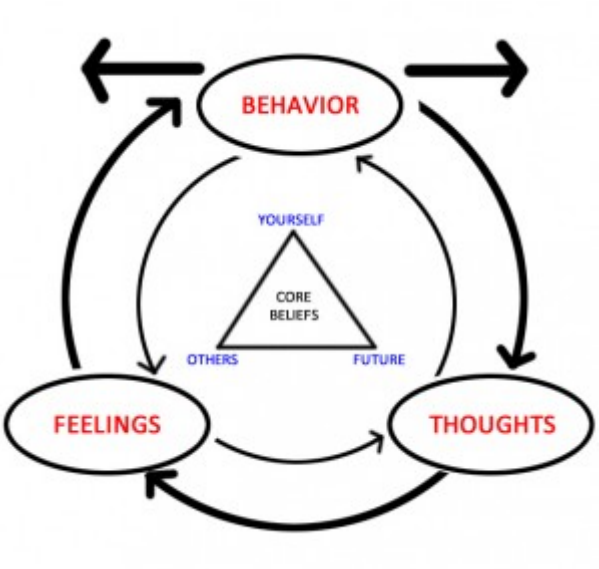

Image: The diagram depicts how emotions, thoughts, and behaviors all influence each other. The triangle in the middle represents CBT's tenet that all humans' core beliefs can be summed up in three categories: self, others, future. By Urstadt, License: CC BY 3.0

Prognosis for Affective Disorders

Adverse outcomes of the disease are expected in older patients, patients with early disease onset, in cases with mixed symptoms or a high number of episodes, in patients with a family predisposition, or those exposed to chronic familial or occupational stressors, or existing comorbidity.

Generally, however, affective disorders are manageable. Effective treatment requires the active participation of the patient, which includes medication compliance and engagement in psychotherapeutic procedures.

References

American Psychatric Association, 2013. Diagnostic and statistical manual of mental disorders(5th Edition). Washington,DC: American Psychatric association.

Ebert, M. H., Loosen, P. H. & Nurcombe , B., 2000. Current Diagnosis and treatment in psychiatry.. New York: McGraws Hill.

Murphy, M. J. & Cowan, R. L., 2004. Blueprints Psychiatry(3rd edition). New York: Blackwell Publishing.

Notes