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Functioning of a child with depression in the school environment

The essence of depression as a disease entity

The term "depression" is extremely common in everyday language. It is usually used to name the normal reaction to difficult life situations. It often happens that the young person feels sadness, which is the cause of school failure and personal failure, or unsatisfactory social relationships. Depression as a disease, or other recognized clinically depressive syndrome, is a long-lasting, harmful and serious condition characterized by excessive lowering of mood and other symptoms of mental, behavioral and physical ground. In classifications of medical disorders, depression is placed in the group of mood disorders (affective disorders), depressive symptoms, however, can also be present in these patients, who did not have affective disorders (Turno, 2010, pp. 7–27). Indication of specific differences between ordinary malaise, and actual depression is very difficult. In general, the process is simple short-term depression, which is not accompanied by such a low level until the mood, self-esteem, as in the case of depression (Święcicki, 2002, p. 151).

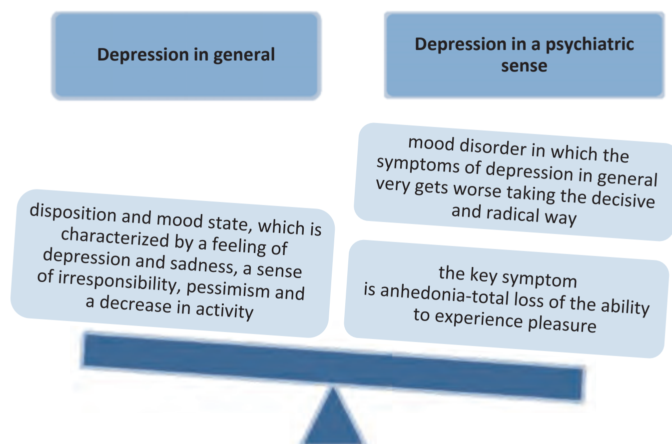

Fig. 1. The definition of depression in general and a psychiatric sense (based on: Reber, 2002, pp. 137–139)

Reber (2002, pp. 137–139) provides a more precise differences. Figure 1 illustrates them.

The International Classification of Diseases and Related Health Problems ICD-10 developed by the World Health Organization (WHO) at positions F32 and F33 place various types of depression – from episodes of disease, to recurrent depressive disorders. None of these units relate directly to children and young people, and therefore the diagnosis of depression in persons of school age is held by the same criteria as in adults.

The clinical picture of depression is largely dependent on the age of a child due to developmental, cognitive, emotional and social transformation. The types of symptoms characteristic of certain developmental periods are presented in Table 1.

Tab. 1. Symptoms of depression specific to the child developmental period (based on: Radziwiłłowicz, 2012, pp. 5–6)

The period of development	Symptoms of depresion
early school age (6–8 years of age)	**Somatic:** fatigue, headaches and stomach disorders, sleep and appetite disorders, bedwetting, poor internalization of social norms, aggressive behavior
	Emotional: refrained from contact with people, avoiding challenges, clinging to parents, fear of going to school, mood disorders (depression, lack of expression of feelings), unwillingness to undertake activities, such as avoidance of fun, reduction of learning capacity
preadolescence (9–12 years)	**Somatic:** sleep disturbances, fatigue, various aches
	Emotional: fear of disease, negative self-image, lying, for example, on the results of the study, existential fear, sadness, anger, blaming himself for causing pain to parents, feeling of lack of love, reticence, hypersensitivity to criticism, rudeness, externalized disorder, thoughts of death
early adolescence	**Somatic:** impaired concentration, feelings of fatigue, anxiety, fatigue
	Emotional: depressed mood, lack of acceptance for your body, tendency to isolation, mood swings, behavior of 'acting out', self-destruction, reduction in the level and the number of activities undertaken
average stage of adolescence (13 years)	so-called depression, resignation or depression with anxiety
	Somatic: lack of appetite, drowsiness
	Emotional: bad mood, excessive sensitivity, a sense of despair and self-destruction, suicidal thoughts
latest age of adolescence	**Somatic:** sleep disorders and cognitive processes
	Emotional: sadness, anxiety, guilt and hopelessness, the rapid reactions to failure and failure isolation, the predominance of negative thoughts on any matter, the impression of lack of understanding, a sense of lack of acceptance, aggressive behavior, alcohol abuse, drugs, medicines, criminal activity, escape from home

The etiology of depression may be associated with biological agents. Transformation of somatic and endocrine (e.g. development of neurobiological system--serotonergic and noradrenergic), the interaction of sex hormones and neurotransmitters, the state of sexual maturity, irregularities in the functioning of the

hypothalamic – pituitary-adrenal and blood-brain barrier, may cause changes in the functioning of the psyche, and the cause or one of the causes of depression (Radziwiłłowicz, 2012, pp. 6–12).

Depression as a social problem

Children and adolescents, like adults are influenced by factors that affect psychosomatic condition. Adults have more mature nervous system and emotional plasticity, as well as better developed system of buffering action of the body, making it easier to oppose the events of fate. Among adults we usually observe developed and related systems of social relations, which enhance the functioning of the position of the entity. Formerly, depression among children and adolescents has been the subject of not enough study, as the dialogue was not carried out with them about their mood or feelings. Even today, if you do not talk to your child about his well-being and problems, we fail to diagnose depression. We now know that both quiet, withdrawn children, and irritable ones may have a depressive problems. A characteristic feature of depression in childhood and adolescence is a high rate of co-morbidity. Most frequently depression coexists with anxiety disorders. 30–75% of children diagnosed with depression at the same time meet the diagnostic criteria for anxiety disorders (Bomba, 2005, pp. 266–279). The report of the World Health Organization shows that by 2020 depression may prove to be one of the greatest dangers to human health and life. Therefore, since 2004, every February 23rd is celebrated as Business Day Against Depression, and since 2006 there is an online course on the portal of Foundation Ithaca "Depression Is a Disease", which aims to inform the public about the disease, its main tenancies and the increasing number of suicides resulting from untreated depression (Radziwiłłowicz, 2012, p. 1).

Causes of depression among children and adolescents

Behavioral disorders of children and adolescents is a problem undertaken by different disciplines – including psychology, pedagogy, neurology, or finally: psychiatry. Such a wide range of interests is evidenced by the complexity of the problem and the need for a holistic explanations of depressive disorders. The problem of depression among children and young people began to occur relatively late in the textbooks of psychiatry, no sooner than the end of the 70s. Depression is one of the most common mental disorders among young people. Rate of depression among people between 9 and 17 years ranges from 0.4% to 8.3%, and it marks the beginning of puberty in boys, and the end of this period in girls (Radziwiłłowicz, 2012, pp. 2–3).

The main reason for the appearance of depressive disorders in children are poor relations between parents. It has been shown that up to 18% of children suffering from depression are those whose parents divorce or are still in a serious conflict. Another common cause is maternal depression, which is due to close relationship

with the child, to whom she involuntarily transfers her pessimistic attitude to the world (Heller, 2012).

It is assumed that the ratio between the number of boys and girls with depression can be determined as 1:2. This is due to the fact that girls perceive their failures or negative events in their physicality, which is often in their subjective assessment unattractive. This leads to low self-esteem and, consequently, to accumulation of negative emotions. The causes of depression are therefore, among other, biological changes associated with human sexuality, learning the essence of gender roles in society and culture, and wrong way to draw knowledge on gender issues (Radziwiłłowicz, 2012, pp. 2–3).

Among other causes of depression, children and adolescents should include:

a) abuse of alcohol or other psychoactive substances by family members,
b) domestic violence,
c) chronic illness of one of the members of the family,
d) psychological, physical, or sexual use by attendants,
e) negligence, lack of interest,
f) low socio-economic statute,
g) excessive control by parents,
h) too high expectations of parents in relation to the child (Turno, 2010, p. 14).

A common cause of depression is stress reactions caused by poor schoolchild. Particularly unfavorable factors include: excessive requirements of discipleship, the difficult situation in the classroom – the atmosphere tension, hostility, lack of acceptance, violence, and school failure. One of the risk factors of depression is low self-esteem resulting from the two inner judgments. After the first child has a certain internal discrepancy between who he wanted to be, and who he thinks he is. The greater the gap, the lower the self-esteem. Another important factor is the self-esteem, which is formed on the basis of relationships with other peers, family, and system presented by the media. It is important, therefore, the support given by adults, as well as the ability to assess the child's behavior and early introduction of therapy (Radziwiłłowicz, Sumiła, 2006, pp. 27–46; Kołodziejak, 2008, pp. 15–33; Link-Dratkowska, 2011, pp. 84–90; Woynarowska, 2012, pp. 407–412).

The mechanism of the development of depression during adolescence is also dependent on biological factors (genetic and endocrine), as well as psychological. Persistence of the disease leads to abnormalities in brain function (Greszta, 2006, pp. 167–185). The risk of depression in children whose biological parents suffered from the disease is 15–45%, even if the child has been adopted by a family free from depressive behavior. If one of the identical twins suffers from depression, the risk of this disorder in the second one is as high as 70% (Hasler, 2011, pp. 5–22).

Among the potential causes of depression are often administered especially endocrine disorders that lead to abnormal reactions in the central nervous system (CNS). Some of them worth mentioning are: a shortage of serotonin, norepinephrine, dopamine, GABA, reduced release of endorphins and disruption of membrane

carriers within neurons. These deficits in a negative way affect the process of communication between neurons, and thus the efficient functioning of the brain. Also, a deficiency of thyroid hormone affects the homeostasis of the body – hence the diagnosis of depression should perform determination of the levels of this hormone in the body. Another factor that may influence the development of depression is the level of cortisol, or stress hormone in the body. Changes in the stress hormone secretion appear to be most pronounced in patients with depression (Landowski, 2002, pp. 9–12). Elevated levels of cortisol can act as a mediator between mental and somatic symptoms, such as the development of type II diabetes (Hasler, 2011, pp. 5–22). Modern concepts of pathogenesis of depression are formulated by using several research strategies. These include studies in animal models, clinical chemistry, neuroendocrinology, as well as post-mortem examinations. But now, using functional neuroimaging methods, we are able to answer many of the interesting questions about the functioning of the brain (Jaracz, 2004, pp. 73–79). Thanks to modern technology, one managed to determine the brain regions whose activity is altered in comparison to healthy subjects. Using, among others, positron emission tomography (PET), single photon emission computed tomography (SPECT) and functional magnetic resonance (FMR) demonstrated that regions such as amygdala, thalamus and hippocampus responsible, inter alia, for memory, emotions and behavior, are statistically lower in patients diagnosed with depression compared to healthy subjects (Jaracz, 2008, pp. 875–888). Stress, which plays a key role in depression, may be a key factor that inhibits the growth of new nerve cells (neurogenesis) in the hippocampus. These studies also showed decreased metabolic activity of nerve cells – including in the frontal lobe, temporal lobe, and the caudate nucleus. We also observed an increased neuronal activity of the limbic system and blood flow disorders in important brain structures, which may affect the subject's cognitive impairment. With the development of histological brain of Alzheimer's, for the first time was demonstrated the relationship between brain pathology, symptoms of dementia, accompanied by other psychiatric disorders. Progress in neurobiology, neuroendocrinology, genetics and neuroimaging methods resulted in the evolution of views on the pathogenesis of depression. System models of the pathogenesis of mental disorders formulated in recent years found that the structure and function of the brain shape the interaction of genetic, somatic, and life experiences. Recent studies also indicate a disturbance of biological rhythms occurring in people with depression (Gawlik et al., 2006, pp. 171–178; Rybakowski, 2008, pp. 133–140).

The consequences of the appearance of depression in young people

A child with depression exhibits very low skills in making interpersonal judgements, due to the ongoing for a long time pessimistic attitude both to himself and environment he lives in. It causes, in turn, to have a very small number of friends, or lack of them, which in the longer term may lead to poor academic performance and lack of success in the school environment (Heller, 2012). In addition, depressive

disorders which begin in adolescence can result in very serious consequences in the form of addictions, psychosis, social phobia, and eating disorders (Drake, Cimpean, 2011, pp. 141–150).

The type of depression that affects young man depends on his behavior, and leads to different consequences of the disease. Types of depression and their effects are illustrated in Table 2.

Tab. 2. Types of adolescent depression (based on: Kępiński, 1985, pp. 25–60)

Type of depression	Consequencess of the illness
apathetic	disintegration of contacts, lack of mobilization to make the effort, unwillingness to play among their peers, neglect of science
	occasionally interrupts the emptiness of life: getting drunk, transgressions of hooli-ganism, sexual episodes
rebellious	stricter 'youthful rebellion' against the older generation, discharging emotions through aggressive behavior or malice, self-injurious behavior: self-mutilation, alcoholism, suicide
	rebellion against social obligations and hooligan attitude are often an attempt to mask the inferiority complex and lack of self-confidence
negating	severe lack of faith in their own abilities and fulfilling their dreams, resulting in indifference and resignation of dealing with future plans
lability of mood	mood swings so far-reaching that it prevents the patient from living

Care for a pupil with depression and prevention in the school environment

Parents who have noticed in their child alarming symptoms indicating depression should talk with teachers and pediatrician. Unfortunately, both the first and the second professional group needs training in diagnosing depression in young people (Heller, 2012).

An important aspect in the field of school activities seems to be the prevention of diseases and mental disorders among students. It should include in the first place prevention of the occurrence of such diseases by eliminating their causes and relative risks of their formation, as well as education about mental health, or exercise in terms of overcoming stress. The second field of school activities should include early diagnosis of disorders and intervention as soon as possible. The third aspect of the action is preventing the recurrence of the disease, which can be achieved by preventive therapy and psycho education (Drake, Cimpean, 2011, pp. 141–150).

Depression is one of the most difficult to overcome diseases. Despite the large variety of anti-depressants on the market, the pharmaceutical efficacy of the treatment is achieved in only 25% of patients after the first stage of treatment (Friedman, 2013, p. D3). Clinical form of assistance to children and adolescents with major depressive disorder should not be limited exclusively to pharmacological treatment, but should also involve the ethical aspect of the problem. In this context, there is a need for appropriate psychological environment of life of the patient, who must be sufficiently aware that the aid did not produce the opposite effect, which has proven to be the cause of deepening of depression. Understanding

the living environment of a child and social context of illness can act as a clinical intervention that combines aspects of measures to improve the condition of the individual patient and social change in the context of the perception of depression. Such actions may result in getting information on the factors directly affecting the appearance of emotional problems, intolerance to himself and the world, and consequently the depression of a young man. Acquiring such knowledge can lead in fact to the orientation of path treatment and the gradual integration of the child in social structures (Furman, Bender, 2003, pp. 134–135).

Summary

Depression is a disease disrupting the normal functioning of the human being and his inner circle. The situation is particularly difficult when it affects school--age children. This results in irregularities in the proper physical and mental development, and prevents making contacts with peers, leading to a deepening of the social maladjustment and other, more serious, often tragic consequences. That is why it is so important that parents and teachers are able to recognize the symptoms of depression and know the etiology of the disease. Furman and Bender (2003, p. 124) report that a growing number of people is buying books concerning symptoms of depression, which may constitute evidence of an increase in public awareness of the nature of the problem.

Due to the fact that depression has highly visible, negative effects on the functioning of the child in the family, school and social, one should take action to help the patient to adapt to the environment, making a variety of social roles and the fight against pessimistic thoughts. However, the aid flowing from parents and teachers to be effective must be professional. Therefore, there is an urgent need to spread knowledge about the nature of depression as a disease entity. It is vital as the number of young persons struggling with this disease continues to increase. Spreading meaningful information on the treatment of depression may be helpful in alerting patients and the public that depression is a treatable disease, once you have the knowledge of how to fight it and of places where you can seek help.

References

Bomba J., 2005, *Depresja młodzieńcza*, [in:] J. Namysłowska (ed.), *Psychiatria dzieci i młodzieży*, PZWL, Warszawa.

Cimpean D., Drake R.E., 2011, *Treating comorbid chronic medical conditions and anxiety/depression*, Epidemiology and Psychiatric Sciences, 20.

Heller K., 2012, *Depression in Teens and Children*, Psych Central, June 15th, 2014, http://psychcentral.com/lib/depression-in-teens-and-children.

Friedman R.A., 2013, *A New Focus on Depression*, New York Times, December 24th, 2013.

Furman R., Bender K., 2003, *The Social Problem of Depression: A Multi-theoretical Analysis*, Journal of Sociology and Social Welfare, 30(3).

Gawlik O., Nowak J., 2006, *Zaburzenia rytmów biologicznych w depresji – poszukiwanie nowych strategii terapeutycznych*, Postępy Psychiatrii i Neurologii, 15(3).

Greszta E., 2006, *Depresja wieku dorastania. Zachowania rodziców jako czynnik ochronny lub czynnik ryzyka depresji u dorastających dzieci*, SWPS Academica, Warszawa.

Hasler G., 2011, *Patofizjologia depresji: czy mamy jakieś solidne dowody naukowe interesujące dla klinicystów?*, Postępy Psychiatrii i Neurologii, 20(1).

International Classification of Diseases and Related Health Problems ICD-10, http://apps.who.int/classifications/icd10/browse/2016/en.

Jaracz J., 2004, *Neuroanatomia depresji w świetle czynnościowych badań neuroobrazowych*, Psychiatria, 1(2).

Jaracz J., 2008, *Anatomia depresji w świetle wyników badań neuroobrazowych*, Psychiatria Polska, 42(6).

Kępiński A., 1985, *Melancholia*, Państwowy Zakład Wydawnictw Lekarskich, Warszawa.

Kołodziejek M., 2008, *Depresja u dzieci i młodzieży: podstawy teoretyczne, psychoterapia poznawczo-behawioralna*, Psychoterapia, 2(145).

Landowski L., 2002, *Zaburzenia depresyjne a mechanizmy stresu*, Psychiatria w Praktyce Ogólnolekarskiej, 2(1).

Link-Dratkowska E., 2011, *Depresja dzieci i młodzieży – podejście poznawczo-behawioralne. Teoria i terapia*, Psychiatria, 8(3).

Radziwiłłowicz W., Sumiła A., 2006, *Psychopatologia okresu dorastania*, Impuls, Kraków.

Radziwiłłowicz W., 2012, *Czynniki ryzyka oraz różnorodność obrazu klinicznego depresji u dzieci i młodzieży*, Tydzień Zdrowia Psychicznego, 8–14.10.2012, WZ Sopot.

Reber A., 2002, *Słownik psychologii*, Wydawnictwo Naukowe Scholar, Warszawa.

Rybakowski J., 2008, *Koncepcja melatoninowa patogenezy i leczenia depresji*, Farmakoterapia w Psychiatrii i Neurologii, 3.

Święcicki Ł., 2002, *Depresje – definicja, klasyfikacja, przyczyny*, Psychiatria w Praktyce Ogólnolekarskiej, 2(3).

Turno M., 2010, *Dziecko z depresją w szkole i przedszkolu*, Ośrodek Rozwoju Edukacji, Warszawa.

Woynarowska B., 2012, *Edukacja zdrowotna – podręcznik akademicki*, Wydawnictwo PWN, Warszawa.

Functioning of a child with depression in the school environment

Abstract

According to the current classification of medical system, depression is an affective disorder, which symptoms manifest themselves through psychological, behavioral, and physical dysfunction. Among the causes of disease biological and social factors are mentioned. Depression in children and adolescents is not a new subject, but still there is no sufficient knowledge of the mechanisms that are responsible for its development, as well as the full range of symptoms, treatment and prevention of depression among children and adolescents. The problem of depression among young people is particularly important due to the presence in this period of high susceptibility to environmental influences, shaping social relations, as well as the acquisition of knowledge and skills necessary in later life. This can cause significant deterioration of family and social relationships, and the most troubling may cause suicide of the ill person. The problem may concern even 10–15% of children and adolescents, and the average age of onset for depression is 14 years of age and still decreasing (Heller, 2012). It is

crucial to correctly diagnose depression, and that despite the difficulties in its treatment it is a treatable disease (Swiecicki, 2002, p. 152).
The attempt to analyze the literature allowed the statement of the main facts about depression as a disease entity, and to highlight the increasingly frequent occurrence of depressive disorders in school-age children. The authors also pointed the way to deal with a pupil suffering from depression at school. An important recommendation was the need to popularize the various social groups of knowledge about depression, especially in the school environment where children and young people have regular contact, and which has a strong influence on their development, which can be very helpful in treating the disease.

Key words: depression, pupil, school environment, social problem

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