

Problems of the formation of communication skills in children with special needs

Tatyana Cherkasova
Doctor of Sociology, Professor,
Department of International
Relations, History and Oriental
Studies
Ufa State Petroleum Technological
University
Ufa, Russia

Saad Masood Butt
Dr, Software Engineer and IT
Consultant, Member of IEEE and
ACS¹, Member of EA²
¹ *Australian Computer Society,* ²
Engineers Australia
Sidney, Australia

Irina Karabulatova
Doctor of Philology, Professor,
Academician¹, Professor of the
Department of Foreign Languages,
Philological Faculty²
¹*Russian Academy of Natural*
Sciences
²*Peoples' Friendship University of*
Russia (RUDN-university)
Moscow, Russia
Radogost2000@mail.ru

Irina Mkrtumova
Doctor of Sociology, Professor, Vice-
Rector
Science Institute of Additional
Professional Education of the
Department of Social Protection of
Population of the Government
Moscow, Russia

Galina Zabirowa
Social Teacher, Educational Center
"Solnyshko", graduate student
Institute of additional professional
education for social workers in
Moscow
Moscow, Russia

Leonid Kim
Leading Specialist of the Medical
and Social Service
Akmola Regional Germans Society
"Wiedergeburt"
Kokshetau, Kazakhstan

Abstract—Any disease affects the psychological or mental state of the patient. The ailment caused by the lack of an insulin hormone is not considered an exception. Diabetes mellitus is also characterized by the presence of its psychosomatic abnormalities from the norm of development, which lead to a variety of disorders. Organic brain damage that occurs as a result of acute cerebral circulation disorders due to diabetes mellitus, and their consequences, tend to grow all over the world.

A high incidence of strokes is due to a number of negative factors: hypertension, smoking, diabetes, hyperlipidemia, obesity, arthritically fibrillation, and others. The importance of climatic and geophysical factors in the development of vascular pathology has also been established. In addition, the percentage of patients with this disease of working age is growing.

The psychosomatics of any disease that affects the endocrine system is hidden in serious disorders of nervous regulation. This is evidenced by clinical symptoms, including shock and neurotic states, depression and so on. However, these conditions can also become a major cause of the development of type 1 and type 2 diabetes. We pay special attention to verbal disorders in patients with diabetes mellitus.

Keywords—*diabetes mellitus, dysarthria, CNS lesions, speech disorders*

I. INTRODUCTION

Any dysfunction of the human body is reflected in its psychological state. That is why there is an opinion that the reverse process can completely exclude the possibility of developing any disease. If 20 years ago, the number of people with diabetes in the world did not exceed 30 million people, but now they are already 285

million, in other words, almost 10 times more. Even more rapidly increases the proportion of the population with the so-called "pre-diabetes" and metabolic syndrome. Their number already now stands at 344 million people (7.9% of the world's population). Meanwhile, it is from this group of "conditionally healthy" persons that the number of patients with type 2 diabetes increases by 15% every year. According to international statistics every 10 seconds, 1 person with diabetes dies in the world, and 2 people get sick again; Annually about 4 million patients die [1, 2].

In medical science, the opinions of scientists on this subject vary widely. Some consider psychosomatics basic, while others completely refute this theory. An unhealthy person can be recognized immediately. As a rule, he is given out features of behavior, as well as a tendency to unusual manifestations of emotions [3].

If pathopsychology is a section of psychology that studies the "patterns of the disintegration of mental activity and personality traits in comparison with the patterns of the formation and course of mental processes in the norm" and the patterns of distortions in the reflective activity of the brain [4], then pathopsycholinguistics is a scientific area that studies pathological deviations in the formation and flow of speech processes under conditions of systemic decay (or unformed) of activity and personality. Otherwise, pathopsycholinguistics is "the application of linguistics to psychiatry", as it was determined by the first to use this term by A.A. Leontyev [5]. But the spectrum of various forms of speech pathology is much broader.

First, it is actually pathopsycholinguistic speech disorders, associated with the pathology of the individual, consciousness and higher mental functions (mental activity). An example is the violation of speech activity in paranoid schizophrenia. Secondly, these are speech disorders that are rooted in local brain lesions, but have nothing in common with mental illnesses, which constitute the subject of study of psychiatry and pathopsychology. They, as we know, are studied by neurolinguistics: a typical example is the different types of aphasia. Thirdly, these are speech disorders associated with congenital or acquired disorders of sensory systems - mainly these are features of speech (and its perception) in the deaf and deaf and dumb. Fourthly, these are speech disorders related to mental retardation or temporary delays in mental development. Fifthly, these are verbal violations having an "executive" nature and associated with defects in the motor programming of speech or the implementation of a motor program (for example, stuttering).

The degree of study of all these violations is different. Therefore, we can not give here an equally complete psycholinguistic description [6]. Moreover, it is impossible to give even the main literature. Therefore, we confine ourselves to a selective examination of individual diseases (or, more accurately they say in medical psychology, "suffering"). People with diabetes mellitus are prone to mental disorders, which is reflected in their speech. In addition, psychedelic drugs can be stimulated with prescription sugar reduction drugs, stressful situations, emotional overstrain and instability, and negative components of the external environment.

This is due to the fact that in a healthy person, hyperglycemia rapidly decreases as soon as the stimulus ceases to function. However, diabetics do not. Therefore, according to the concepts of psychosomatics, people who need caring often suffer from diabetes, who have not received their motherly affection. Scientists increasingly began to think about how diabetes affects the patient's psyche, what mental changes in their behavior are manifested, and how they are conditioned. Depressive psychological features of patients with diabetes mellitus are expressed by the following symptoms:

1. There is a sense of loss, depression and despair;
2. There is a deterioration in mood, a feeling of hopelessness, of meaninglessness;
3. Diabetics become harder to think, make decisions;
4. Anxiety;
5. Lack of desires for desires, indifference to oneself and others.

Significant role here is anxiety of relatives of such patients who talk about changing family relationships. The severity of the problem depends on the duration of the disease. Statistics indicate that the risk of developing a disorder in diabetes mellitus depends on the complex of syndromes and can be from 17 to 84%.

[7]. The syndrome is a set of symptoms that describe the meaning of the syndrome. There are three types of the syndrome, which can manifest simultaneously or independently.

Psychology distinguishes the following syndromes:
1. Neurotic syndrome in patients. During diabetes, neurotic disorders are often observed, including a bad mood, lack of joy, confusion, an unpleasant anxious tick, instability of emotions and so on. Such diabetics are sensitive, sensitive and irritable.
2. Asthenic syndrome is manifested by excessive excitability, which is characterized by aggressiveness, conflictness, anger, discontent with oneself.

If a person has had to suffer from this syndrome, he is likely to have trouble sleeping, that is, falling asleep badly, often waking up, experiencing drowsiness during the day.
3. Depressive syndrome often becomes a component of the first two varieties, but in rare cases it also occurs independently. Chronic circulatory failure is a change that occurs in the brain as a result of damage to blood supply vessels. Chronic insufficiency of cerebral circulation develops for a long time, gradually. At the initial stages of the development of the disease characterized by the presence of the following manifestations: emotional imbalance, irritability, memory impairment, headaches, dizziness, sleep disorder, noise and ringing in the ears. There is an unstable blood pressure, a decrease in working capacity, increased fatigue. In the presence of adequate treatment, all of the listed symptoms disappear, the condition is normalized. In the absence of proper treatment, the labile form of diabetes mellitus, the long course of the disease, the adverse effects of adverse environmental factors, the manifestations of the disease become more severe. Headaches, dizziness, increased fatigue acquire a stubborn character, often fainting, reflexes are broken, sharp fluctuations in blood pressure or stabilization of blood pressure on high figures occur, mental disorders (self-doubt, selfishness, cowardice, memory disorders) occur. With pronounced irreversible changes in brain structures, dementia develops, repeated strokes with paralysis, swallowing, speech, sensitivity, and mental disorders.

Since "... the auditory and kinesthetic sensations arising in the speech analysis act as mutually determining each other ..." [8], it can be assumed that for violations of speech kinesthesias that occur during morphological and motor lesions of the speech organs, there are changes in the phonological system of the language. These circumstances once again confirm the need to study dysarthritic disorders, which often accompany this pathology.

II. MATERIALS AND METHODS

We think that the study of violations of the phonological system of language in individuals with diabetes and focal brain lesions makes it possible to clarify the criteria for their differential diagnosis in various types of speech pathology that arise from violations of the mechanisms of sensorimotor and linguistic levels of speech generation. The aim of the study is to determine the most effective ways of

correcting phonological disorders in the system of differential speech therapy for overcoming speech disorders in patients with focal brain lesions due to diabetes mellitus. The object of the study is the sound system of the language in patients with diabetes mellitus. The subject of the study is the correction of phonological disorders in dysarthria in patients with focal brain lesions due to diabetes mellitus.

The theoretical and methodological basis of the research is a systematic approach to the analysis of the phonetic means of the language, the phonological system of the language in speech disorders; the doctrine of a multi-level hierarchically organized structure of speech activity, of the processes of perception and generation of speech utterance; conceptual provisions on the phonetic and phonological units of the sound system of language; modern ideas about the structure of the speech defect; the theory of step-by-step formation of mental actions; provisions on the unity of the laws of development of normal and abnormal speech development, the leading role of learning in the development process, the role of special (correctional) impact on patients with focal brain lesions. The theoretical significance of the study lies in the possibility of using the results obtained for the development of studies of phonological disorders in dysarthria, in particular focal brain lesions. Our results will make it possible to clarify and supplement the nosological data on the features of the phonological system in dysarthritic disorders due to diabetes mellitus.

The methodological basis of the study is the classical works of the ancestors of aphasiology (P. Broca, C. Wernicke, J.H. Jackson, G. Had), the fundamental principles of neuropsychology and restorative learning in aphasia (T.V. Akhutina, E.S. Bain, T. Vazel, E.N. Vinarska, J.M. Glozman, T.A. Kuchumova, A.R. Luria, E.D. Khomskaya, L.S. Tsvetkova, L.G. Chlenov, V.M. Shklovsky, etc.), philosophical provisions on language as an important means of communication and cognition, its connection with thinking (N.I. Zhinkin, A.N. Leontiev, A.A. Leontiev, W.L. Chaeif, R. Jakobson, etc.), the main positions interhemispheric asymmetry of the brain, dedicated to the pathology of speech and other ACFT (L.Y. Balonov, N.N. Bragina, V.L. Deglin, T.A. Dobrokhotova, R.A. Mosidze, etc.), modern provisions on the systemic the organization of speech function, the regularities of speech ontogeny (E.D. Bozhovich, L.S. Vygotsky, J.-P. Piaget, T.N. Ushakova, etc.). The research methods were selected in accordance with the purpose and objectives of the study and included: theoretical analysis and generalization of scientific literature on the research problem; methods of experimental psychological and pedagogical examination, observation and generalization with the help of traditional and modified neuropsychological and proper speech therapy methods; the method of conversation with the investigators and their relatives, the study of medical documentation; neuropsychological and neurolinguistic methods in ascertaining and teaching experiments.

III.DISCUSSION

The very concept of speech pathology is definable only on the basis of three interrelated criteria. The first of these is somewhat unconventional for pathopsychology: it is a socio-psychological approach. Let us approach the notion of pathology through the concept of norm. A person occupies a system of social positions in society, plays a system of social roles [9]. Each role has a set of functions defined as socially significant: the society makes known to each of its members certain requirements, according to which these functions should be implemented. In those cases when human behavior meets these requirements, we can talk about its compliance with social norms. The concept of the social norm presupposes some average representation of the minimum functions that a person is called upon to perform in a given society and given social situation, being in a certain position and acting as the bearer of a certain social role. Based on this understanding, the pathology can be attributed to deviations from the average norm.

However, it should be borne in mind that inadequacy in the performance of one of the roles, in the performance of one of the functions, does not yet give grounds for assigning such a case to pathology. You can talk about it only when the system of social roles is violated. And most importantly, what is extremely important for assigning this case to the norm or pathology is the consideration of those internal causes, the "background" on which the pathological "phenomenology" unfolds. Such a background will be the causes of the pathopsychological order, which cause this or that functional violation. So, the second approach is psychophysiological, the approach from the point of view of functional violation. And pathology should be understood as some resulting definite functional impairment and requirements for function on the part of society. Based on this understanding of pathology, the pathology of speech can be defined as a violation of speech activity caused by the lack of formation or disruption of the psychophysiological mechanisms that "assimilate, produce, reproduce and adequately perceive linguistic signs as a member of the language collective" [10], a violation that is perceived by the society (social group) and the individual himself as a deviation from the social norm.

Thus, what is very broadly and indefinitely designated as a pathology of speech, when taking into account the third, the psycholinguistic approach can be designated as a violation (pathology) of language ability. Such an interpretation, as it seems, makes it possible to contrast quite clearly the speech pathology itself with deviations and deviations from the cultural-speech norms of speech use observed in individual members of society. If, in cases of speech pathology, we meet violations of both skills and skills, in other cases - only with the unformedness of individual elements of the speech process, the non-possession of some elements of the language. If in cases of speech pathology we meet with violations of both skills and skills, in other cases, as a rule, with the undeformedness of these or other skills.

If, in cases of speech pathology, a person (patient) needs a specially organized rehabilitation aid (rehabilitation therapy, corrective system), in other cases, a sufficient correction of the deviation from the norm is sufficient. In cases of speech pathology, the question of the possibility or impossibility of communication (communication in general or adequate, effective communication) is before us. In other cases, it is only about whether it is right, good or beautiful to talk in one way or another (using the definition of O. Espersen) [11]. The pathology of speech should be contrasted with other deviations from the norms of speech use such as reservations, permutations of word elements, confusions, erroneous use of words (paraphasia), hesitations, etc. as violations global, ubiquitous, regular - violations contextual, situational, sporadic. This is important to emphasize because the facts observed in the study of speech pathology, and the facts of the same kind observed in the study of normal speech, may turn out to be identical. The German scientist Henner Barthel, who recently relied on the concept of the Moscow psycholinguistic school, made the first attempt to give a systematic psycho-linguistic interpretation of a number of speech disorders, including this group.

The psychological aspects of diabetes are discussed at three levels: as an etiologically significant factor, as the cause of acute metabolic disorders and as a reaction to the disease. Such a close relationship leads to the fact that stress, affecting, primarily, the nervous system, affects through it and the immune and endocrine systems. In addition to the already listed causes of diabetes, modern science has proven that this disease can be the result of emotional stress. "Studies show that people with diabetes, five years before the diagnosis, have a higher level of stressful events and long-term difficulties. In other words, in a five-year period preceding the onset of diabetes, a person is particularly often faced with various difficulties and changes in life, often experiencing stress" [12]. The relationship between diabetes and emotional stress was noted back in 1674 by Thomas Willis. He wrote that the appearance of diabetes is often preceded by "prolonged distress" [13]. In the middle of the XIX century, Claude Bernard established the relationship of hyperglycemia with the activity of the central nervous system, and in the future many well-known scientists, incl. S. S. Korsakov, considered diabetes as a "nervous disease". "The most demonstrative is the emergence of diabetes after long experiences and acute shock, emotionally significant situations. A classic example of diabetes mellitus, which arose after emotional turmoil, is "stockbrokers' diabetes" after the fall in prices on the Chicago Stock Exchange in the 30s. the last century " [14].

W. Cannon in his experiments found that anger and fear affect the metabolism of carbohydrates: he found sugar in the urine of those taking the exam, spare players and gamblers during a football match, etc. To provide the body with energy for attack or flight, sugar is strongly secreted into the blood [15]. F.Aleksander, as already noted, proceeding from his conception,

suggested that the basis of diabetes, as well as the basis of hypertension and other diseases, is an emotionally mediated one-sided increase in sympathetic tone (sympathicotonia) [16]. However, in the above scheme F.Alexander sugar diabetes is indicated under the sign of the question: the founder of psychosomatics did not have time to prove his assumptions about the etiology of diabetes by the results of empirical studies. Nevertheless, modern physiology is known for certain that under the influence of stimulation of sympathetic nerves, the secretion of insulin by beta cells of the islets of the Langerhans of the pancreas decreases, which leads to an increase in the level of sugar in the blood [17]. During stress, the sympathetic nervous system is stimulated, adrenaline, norepinephrine and catecholamines are released, which inhibit the production of insulin by the pancreas. As a result, the amount of sugar in the blood rises, this provides additional energy for physical activity. If there is no motor discharge, hyperglycemia can develop ... When the blood sugar level exceeds 180 mg%, the kidneys can not return such amount into the blood and there is a glycosuria (sugar in urine 1-8%). Hyperglycemia manifests itself as weakness, fatigue, dry mouth, constant thirst, nausea, headache, frequent urination [18].

"Glucoseotoxic effect" leads to the development of insulin resistance of tissues [19]. Indirect evidence of the influence of the increased tone of the sympathetic part of the autonomic nervous system on the development of diabetes mellitus is the existence of the relationship between diabetes mellitus and hypertension: the elevated blood pressure is fixed in 50-80% of patients with diabetes mellitus [20]. At the same time the psychosomatic origin of hypertensive disease is proved: as already noted, it is part of the "Chicago Seven".

The question arises: why does not all people experiencing emotional stress develop diabetes mellitus? Why do organisms of different people react differently to stress? Most researchers, recognizing the etiological role of psychotrauma in the development of diabetes, believe that it plays only the role of a provoking factor [21]. As the American psychologist R. Surwit marks, there are individual profiles of stress - pictures of specific reactions to stress. Some people notice the onset of development of stress on changes in vegetative functions, others - on changes in behavior, and others - on changes in the cognitive sphere. Moreover, the author claims that there are different signs of stress even within the same sphere. For example, in the vegetative system, one person experiences palpitations, another - a slight tremor, the third can feel how cold his hands or feet [22]. The results of scientific research support this opinion: despite the generalization of visceral disorders in experimental neuroses, the most persistent functional changes are often noted within one organ or system a single central mechanism of somato-vegetative disorders is postulated, and the partial response to the stimulus (irritation) is associated with the influence of additional factors [23]. Thus, whether the body will

suffer as a result of stress and how, depends on the influence of additional factors. As already noted, type II diabetes usually occurs in people who are overweight. In turn, excess weight can be a consequence of eating disorders: the tendency of diabetics to culinary excesses is generally known [24]. Doctors for a long time suspected that people with diabetes had a higher incidence of eating disorders. The sufferers are often ashamed of their behavior and do not give any information about it in the clinic [25]. Perhaps the emergence of diabetes mellitus due to stressful effects is due to the fact that eating disorders that last for a long time lead to congestion, overstrain of the beta cells of the Langerhans islets of the pancreas, and as a result these cells become weakened; in turn, the impact of stress on weakened cells completely removes them from the system. If this assumption is true, a predisposing factor in the onset of diabetes is eating disorders (excessive appetite). In turn, excessive appetite appears when food becomes a substitute for satisfying frustrated emotional needs that have nothing to do with the process of nutrition eating disorder is usually a reaction to emotional frustration [26]. Most often identify the following causes of eating disorders in the form of excessive appetite [27]:

- Fracture in the loss of the object of love. This reason is noted in the literature most often. Food is a substitute for absent maternal care, protection from depression food is more than just food, it's self-affirmation, stress relieving, mother support;

- General depression, anger, fear of loneliness and a feeling of emptiness;

- Situations that combine danger and activity, requiring wakefulness and increased stress.

In persons suffering from this form of eating disorders, there is an internal conflict between aspirations, on the one hand, to excessive absorption of food, on the other hand, to conform to the physical ideals of modern society: [28]. This ideal has been shifting more and more from rounded forms in the last 50 years the side of a rather childish and elegant figure. The ideal of beauty is an attractive, athletic, elegant, girl-like woman [29] In this regard, they are constantly experiencing feelings of guilt, shame and helplessness. They also suggest that such people have a conflict between aspirations for dependence and independence: Own fears can not be managed are controlled and compensated for by caring behavior; weak and dependent aspects of one's self are restrained and, in the end, will react in bouts of overeating [30]. Among the personal qualities of people with excessive appetite, there is an increased sensitivity to social requirements, perfectionism (pathological aspiration for perfection), low self-esteem, impulsiveness, "they strive for greater success and often confuse the love they seek with recognition [31]. The same personality characteristics are found in people with diabetes: Analysis of the findings indicates the confidence of patients with type 2 diabetes in their positive social reputation, attractiveness, popularity, ability to achieve the goal, respect and appreciation of others. At the heart of such

personal characteristics may lie an unrealistic attitude toward one's own perfection, a tendency to be very active towards other people and an overstated demand for others [32]. The data obtained may be peculiar to anxious, emotionally-labile persons, characterized by increased conformance and, possibly, reduced self-esteem.

It should be emphasized that the data available in the literature on the personality characteristics of patients with diabetes mellitus is extremely contradictory. There is a divergence of data on the very fact of the existence of such features: on the one hand, the authors write that the hypothesis of the existence of an etiologically significant "diabetic personality" has not been confirmed [33], on the other hand, there are numerous evidences in favor of the existence of certain characterological and personal characteristics patients with diabetes [34]. F. Dunbar within the framework of the concept of personality profile believed that diabetics more than normal people, replace their infantile dependent state for a more mature and independent. They tend to quickly regress to a dependent installation and defend their independent aspirations more in words than in deeds a group of diabetics is more passive than active, and tends to masochism and indecision [35]. In modern literature, we list such psychological characteristics of patients with diabetes as a feeling of insecurity and emotional abandonment combined with a desire for attention, care and concern from others, anxiety combined with a desire for peace and avoidance of problems (emotional conflict), egocentrism, irritability, capriciousness and incontinence, schizoid traits in combination with paranoid readiness, indecision, impulsiveness, hypersensitivity and emotional inertia, manifestations of al eksitimia, asthenia and depression, social anxiety and weakness of the ego, propensity to self-destructive behavior. The scientists summarized the literature on psychosomatic concepts in the development of diabetes as follows [36]:

- Emotional conflicts and needs are met through eating. There may be gluttony and obesity, followed by prolonged hyperglycemia and further depletion of the insular apparatus.

- Due to the identification of food and love for each other, the emotional experience of the state of hunger arises from the withdrawal of love, and thus, regardless of the intake of food, the diabetic hungry metabolism corresponding to diabetes.

- An anxiety or fear that lasts for a long time leads to a constant readiness to fight or escape with the corresponding hyperglycemia without relieving psychophysical stress. On the basis of chronic hyperglycemia, diabetes can develop. Thus, the role of psychological factors in the onset of diabetes is now proven, but it remains unclear whether emotional stress can cause diabetes in healthy people, or stress only manifests a latent disease. Specific psychological causes and mechanisms of the onset of diabetes mellitus are also not fully understood.

IV.RESULTS

M. Bleuler (1948) united the diversity of psychopathological and somatovegetative manifestations overlapping with endocrine pathology, the concept of "endocrine psychosyndrome," characterized by the fact that along with a decrease in mental activity and changes in drives and instincts, affective sphere disorders arise in the form of dysphoria phenomena with irritability, spitefulness, insomnia and tearfulness [37].

Studies of alexithymia made it possible to establish that undifferentiated and therefore unexpressed psychological mechanisms negatively affect the health status and the development of somatic diseases, in particular diabetes mellitus, much more unfavorable than the negative but well-differentiated emotional states and reactions.

The psychological aspects of diabetes are discussed at three levels: as an etiologically significant factor, as the cause of acute metabolic disorders and as a reaction to the disease.

Such a close relationship leads to the fact that stress, affecting, primarily, the nervous system, affects through it and the immune and endocrine systems.

The Relation to illness and treatment based on a structured interview

12 patients with IDDM (26.7%) subjectively assess their attitude to the disease as calm, believing that the disease does not cause them significant negative emotions, and 15.6% of patients (7 people) note that earlier thought about the disease caused them strong alarm. Apparently, such patients over time have managed to overcome their anxiety, adapted to the disease and associated with it new living conditions. A number of patients (26.1% - 12 patients with IDDM), according to the interview, identify their attitude to the disease as anxious. Such patients note that they react too sharply to changes in their state of health, experience an emotional strain associated with a disease that causes them to constantly worry about their future. But, nevertheless, the patients claim that they are trying to adapt to new circumstances, developing a lifestyle that, despite a number of restrictions, allows them to feel more confident and calm, adjusting to fighting the disease (21.7% - 10 patients). The mood to fight the disease was noted in the group with NIDDM in 10 patients (21.3%). This attitude to the disease contributes to the compensation of diabetes. A smaller number of the examined patients (10% - 14 people from the entire sample) treat their illness pessimistically, believing that they are not expecting anything good in the future, and by presenting their further life as a passive existence, a gradual fading. The zone of the greatest social frustration in 91 patients with diabetes (65.9%) is the lack of satisfaction with their physical condition and their capacity for work. Less often patients noted material difficulties (10 patients with diabetes - 7,25%) and inability to work in the specialty (1 patient with diabetes - 0,7%). Regularly, along with outpatient

monitoring, 35 patients with NIDDM (79.5%) and 35 patients (72.9%) of IDDM were hospitalized.

The substantial analysis of personal characteristics of patients with DM is logically combined with the already noted indicators in the study of patients with IHD and GB, characteristic of patients with DM, a tendency to decrease mood with excessive self-control and autoaggressive orientation. The locus of control is an important characteristic of self-consciousness, connecting the sense of responsibility, readiness for activity and the experience of the Self.

The reaction of patients to the diagnosis is characterized by pronounced emotional distress due to the awareness of the fact of chronic disease. Patients have nosogenic psychological changes, including such emotional reactions as fear, anger, grief, suffering, anxiety, there are isolation, alienation, impoverishment of contacts with people, passivity, anxiety increases, there is self-doubt and self-assessment disorders up to the formation of the inferiority complex, fear of negative attitudes from others, fear of probable severe complications of diabetes, some obsessive States.

A number of symptoms, indicating the impact of the disease on the brain, manifests itself with some delay. Especially delayed symptoms associated with high levels of glucose in the blood. It is noted that over time, the patient damaged vessels, including small vessels, which permeated the brain. In addition, hyperglycemia destroys the white matter.

This substance is considered to be an important component of the brain involved in the organization of interaction of nerve fibers. Damage to the fibers leads to changes in thinking, that is, diabetic can become a victim of vascular dementia or cognitive impairment. Therefore, if a person has had a chance to get sugar, he must carefully monitor his health.

Any patient risks cognitive vascular disorders, but there are also a number of factors that accelerate or slow down the process. With age significantly increases the risk of vascular dementia, but this applies mainly to patients with type 1 diabetes, which is better controlled.

Most doctors initially suggest that a patient experiencing problems with the endocrine system may need psychiatric help. For example, a timely course of autogenic training helps a patient with a disease of varying severity.

During exercise specialists also focus on therapy of melodic intonation. This technique is based on the activation of the functions of the left cerebral hemisphere. Singing or just favorite musical compositions will help to achieve the desired result. If you often sing melodious motives previously familiar to the patient, he / she will want to sing along to his / her instructor one day, trying to speak the end of phrases or individual words. Also help tongue twisters, which are spoken to the patient, is already on the mend. This method works effectively, contributing to the rapid restoration of the functions of the speech apparatus. The peculiarities of the emotional level of

VKB lead to psychological discomfort, which leads to a decrease in the adaptive capabilities of children with diabetes, referring them to the "risk group" for deviant personality development. Diagnostic significant accentuations of character in various combinations occur in 90% of adolescents with diabetes, and the duration of the disease was associated with an increase in their number.

For teenagers with duration of diabetes less than 5 years is characterized by the manifestation of affective-exalted, demonstrative and hyperthymic types of accentuation with a predominance of demonstrative and ciclotimia types relative to other groups, middle (with a tendency to high) level of anxiety, the great and good of the severity of volitional qualities, the predominance of boundary values on a scale of alexithymia, the increase of the level of intrapersonal and interpersonal conflicts.

The most common unpleasant situations that cause anxiety and discomfort, which had been painted by children with diabetes, can be attributed to the following categories:

1. Situations related to the disease or pain: "Lying under the dropper, two days in intensive care," "I'm in the hospital, and my mother is leaving. I'm crying, "" I don't want to pry. I don't want to go to the emergency room to the hospital", "I'm sick and playing with a toy dog", "in Front of the hospital tears me up, and takes away the ambulance", "When the doctor Elizabeth is next to me", "Fell down the stairs" - 45%.

2. A situation associated with the school: "the school has wronged me, said you were a bad student, you're acting up. I offended by", "Programmer should be joyful, that has put unsatisfactory. I think if mom scolds me a lot", "test Tomorrow, and I can't decide the division," "I am in school, I there so" "teasing Me in school, "ginger, ginger, freckled". I begin to run after the one who teases, I try to explain that it is impossible", "the Teacher scolds. I annoy her" is a 40%.

The situation associated with loneliness and fears: "a Friend was moved to another area", "the horrors of the dream. I eat ghosts", "I was alone, and mom left" - 10%.

Unpleasant situations, which remembered and painted healthy children, can be attributed to the following categories:

1. Situations related to the school: "I got a double on the presentation", "I show my mother a diary with the teacher's comment "I talked in class", "in the diary only worse grades", "I play football and lose" - 70%.

2. The situations connected with pain: "I broke a knee, blood flows", "I ride a boat, I am sick" - 10%.

3. The situation associated with loneliness: "I have a broken bike, and left friends," "home alone" - 10%.

It can be seen that 45% of difficult and unpleasant life situations in children with diabetes are associated with disease or pain, whereas in healthy children it is

observed only in 10% of cases. School life is also difficult for both groups of children. They worry about 40% of children with diabetes and 70%) of healthy children.

Children with diabetes compared with healthy children, less expressive and actively cope with frustrating situations, more often experience guilt and take responsibility, focused on rational resolution of problems with the use of other people.

V. CONCLUSION

Among the development factors of decompensated type II diabetes, which are both factors in the development of late diabetic complications, an active role is played by alexithymia, depression, externality in the field of health and diseases associated with clinical indicators, such as the level of glycated hemoglobin, as the leading criterion for decompensation of diabetes, blood glucose, blood lipids, cholesterol and fibrinogen.

Our research has once again confirmed the important role of features of maternal education in the psychological state of children with somatic disease, proved by other authors.

The obtained data expand knowledge about psychosomatic mechanisms of development of type II diabetes, as well as personal characteristics of patients and the possibility of social functioning in the disease, the relationship of psychological and somatic characteristics of diabetes in its various course and progression. This improves the quality of diagnosis, treatment and prevention of diabetes in primary care, as well as predict the development of diabetic complications associated with the presence of psychological maladjustment. This expands the possibilities of correction of the negative influence of mental factors on the progression of type II diabetes and correction of borderline neuropsychic disorders included in the pathogenesis of diabetes.

ACKNOWLEDGEMENT

This paper was financially supported by Ministry of Education and Science of Russian Federation on the program to improve the competitiveness of Peoples' Friendship University of Russia (PFUR University, RUDN-university) among the world's leading research and education centers in the 2016-2020. This publication was supported by the Ministry of Education and Science of Russian Federation (the Agreement number 02.A03.21.0008).

REFERENCES

- [1] M. I. Balabolkin, *Diabetology*. Moscow: Medicine, 2000, 672 P.
- [2] V. Broitigam, P. Christian., and M. Rad, *Psychosomatic medicine: short. training*. Trans. with him. G.A. Obukhov, A.V. Bruenk. Foreword. In, G. Oshroglazov. Moscow: GEOTAR MEDICINE, 1999, 376 p.
- [3] Yu. S. Snytser, "Psychological features of the patient with diabetes mellitus", in *Young scientist*, 2016, No 8.4, pp. 37-39. Available at: <https://moluch.ru/archive/112/28541/>.
- [4] A. Delamater, A. Jacobson, B. Anderson et al., *Psychosocial therapies in diabetes*. Report of the Psychosocial Therapies Working Group II Diabetes Care, 2001, Vol. 24, pp. 1286-1292.

- [5] A. A. Leontyev, "Chapter 13. Pathopsycholinguistics", in *Fundamentals of psycholinguistics*. Available at: <https://librolife.ru/g3876351>.
- [6] Z. V. Polivara, and I. S. Karabulatova, "The Features of Speech Dysfunction in Children: A Neuropsycholinguistic Approach", in *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, May-June 2018, No 9(3), pp. 107-112.
- [7] B. Turan, Z. Osar, J. Molzan Turan et al., "The role of coping with disease in adherence to treatment regimen and disease control in type I and insulin treated type II diabetes mellitus II *Diabetes Metab*, 2002, Jun. Vol. 28, No 3, pp. 186-193.
- [8] L. I. Wasserman, and E. A. Trifonova, "Diabetes Mellitus as a Model of Psychosomatic and Somatopsychic Interrelationships", in *The Spanish Journal of Psychology*, 2006, Vol. 9, No I, pp. 75-85.
- [9] K. B. Wells, W. Rogers, M. A. Bumam, and P. Camp, "Course of depression in patients with hypertension, myocardial infarction, or insulin-dependent diabetes", in *Am J Psychiat*, 1993, Vol. 150, pp. 632-638.
- [10] A. A. Leontiev, *Psychology of meaning*. Moscow: Publishing house "Sense", 1999, 456 p. Cit.: p. 54.
- [11] A. A. Blagin, and V. V. Torchilo, "Methods of optimizing the functional state and human performance in extreme and sub-extremal conditions: educational-methodical manual", in *Military-medical*. St. Petersburg, 2009.
- [12] E. V. Elfimova, "Somatic masks of mental disorders in patients diabetes mellitus", in *Bulletin of the Peoples' Friendship University of Russia, series Medicine*, 2003, No 5 (24), pp. 75.
- [13] A. V. Ivanov, "Features of mental disorders in Sugar Diabetes varied degree of compensation and their psychotherapeutic correction. Author's abstract. dis ... cand med. science. Kazan, 1998.
- [14] W. Fortunat, and E. Binter, "Do young diabetic patients benefit from functional insulin therapy in the long run? *Wien Med Wochenschr* 1991, 141: 53-5.
- [15] Leonard E. Egede, and Yonne Michel, "Medical Mistrust, Diabetes Self-Management, and Glycemic Control in an Indigent Population With Type 2 Diabetes. Available at: <http://care.diabetesjournals.org/content/29/1/131.full>.
- [16] F. Alexander, *Psychosomatic medicine: Its principles and applications*. New York: Norton, 1950.
- [17] B. Klein, R. Klein, and S. Moss, "Self-rated health and diabetes of long duration: the Wisconsin Epidemiologic Study of Diabetic Retinopathy", in *Diabetes Care*, 1998, Vol. 21, pp. 236-240.
- [18] C. E. Lloyd, P. H. Diert, and A. H. Barnett, "Prevalence of symptoms of depression anxiety in diabetic clinic population II *Diabetic Medicine*, 2000, No 17, pp. 198-202.
- [19] M. Kovacs et al., "Intellectual Development and Academic Performance of Children with Insulin-Dependent Diabetes Mellitus", in *Developmental Psychology*, 1992, Vol. 28 (4), 676-684.
- [20] A. Croom, D. J. Wiebe, C. A. Berg et al., "Adolescent and Parent Perceptions of Patient-Centered Communication while Managing Type 1 Diabetes", in *J. Pediatr. Psychol*, 2011, No 36 (2), pp. 206-215.
- [21] Fr. Borrell-Garrio, A. L. Suchman, and R. M. Epstein, "The Biopsychosocial Model 25 Years Later: Principles, Practice, and Scientific Inquiry", in *Annals of Family Medicine*, Vol. 2, No 6, November/December, 2004, pp. 84-92.
- [22] R. Surwit, and M. Schneider, "Role of stress in the etiology and treatment of diabetes mellitus II *Psychosom Med*, 1993, Jul-Aug., Vol. 55, No 4, pp. 380-393.
- [23] D. A. Ellis, H. Berio, A. Idalski Carcone et al., "Adolescent and Parent Motivation for Change Affects Psychotherapy Outcomes Among Youth With Poorly Controlled Diabetes", in *J. Pediatr. Psychol.*, January/February, 2012, No 37 (1), pp. 75-84.
- [24] T. Skinner, and S. Hampson, "Personal models of diabetes in relation to self-care. Well-being and glycemic control. A prospective study in adolescence", in *Diabetes Care*, 2001, May, Vol. 24, No 5, pp. 828-833.
- [25] K. A. Driscoll, S. B. Johnson, D. Barker et al., "Risk Factors Associated with Depressive Symptoms in Caregivers of Children with Type 1 Diabetes or Cystic Fibrosis", in *J. Pediatr. Psychol.*, 2010, No 35 (8), pp. 814-822.
- [26] D. H. Surridge, E. D. L. Williams et al., "Psychiatric aspects of diabetes mellitus", in *Brit. J. Psychiat.*, 1984, Vol. 145, pp. 269-276.
- [27] F. Talbot, and A. Nouwen, "A review of the relationship between depression and diabetes in adults: is there a link? II *Diabetes Care*, 200, Vol. 23, No 10, pp. 1556-1562.
- [28] E. N. Luchinskaya, I. S. Karabulatova, V. V. Zelenskaya, and S. A. Golubtsov, "Characteristics of Image of the Russian Family in Modern Advertising Discourse", in *Astra Salvensis*, an VI, numär 11, 2018, pp. 699-714.
- [29] B. Turan, Z. Osar, J. Molzan Turan et al., "The role of coping with disease in adherence to treatment regimen and disease control in type I and insulin treated type II diabetes mellitus II *Diabetes Metab*, 2002, Jun., Vol. 28, No 3, pp. 186-193.
- [30] M. A. Landolt, K. Ribl, J. Laimbacher et al., "Posttraumatic stress disorder in parents of children with newly diagnosed type 1 diabetes", in *Journal Pediatric Psychology*, 2002, No 27 (7), pp. 647-652.
- [31] E. McLaughlin, M.-J. Lefavre, and E. Cummings, "Experimentally-Induced Learned Helplessness in Adolescents with Type 1 Diabetes", in *J. Pediatr. Psychol.*, 2011, No 36 (5), pp. 504-515.
- [32] G. A. Shiganova, I. S. Karabulatova, A. V. Sviridova, and L. P. Yuzdova, "The Concept of "Knowledge"/"Cognition" in Russian Paremia: the Experience of Structural Semantic Representation", in *Astra Salvensis*, review of history and culture, 2018, Vol. VI, No. 12, pp. 385-393.
- [33] D. Musselman, E. Betan, H. Larsen, and L. Phillips, "Relationship of depression to diabetes types I and II: epidemiology, biology, and treatment", in *Biol Psychiatry*, 2003, Aug (1), Vol. 54, No 3, pp. 317-329.
- [34] E. Northam, P. Anderson, R. Adler et al., "Psychosocial and family functioning in children with insulin-dependent diabetes at diagnosis and one year later", in *J. Pediatr. Psychol.*, 1996, Oct., No 21 (5), pp. 699-717.
- [35] D. F. Emotions, and B. Changes, *A Survey of Literature of Psychosomatic Interrelationships, 1910-1953 II*. New York, 1954, pp. 110-118.
- [36] Sato E. et al., "Socio-psychological problems of patients with late adolescent onset type 1 diabetes - analysis by qualitative research", in *Nagoya J Med Sci.*, 2003. Vol. 66 (1-2), pp. 21-29.
- [37] Y. S. Snitzer, "Psychological features in patients with diabetes mellitus", in *Young scientist*, 2016, No 8.4, pp. 37-39. Available at: <https://moluch.ru/archive/112/28541/>.