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Case Report

Vocal Modeling of Mental States in Medical and Psychological Correction of School Neurotic State

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Abstract

The study presents the interdependence of education and health, the impact of education on students' health, in particular the emergence of school neurosis, which was accompanied by motor breakdown, uncontrolled hyperactivity with attention deficit syndrome. The method and results of the medical-psychophysiological examination of a student on the device "NEXUS-10" ("NEXUS-10" Mark-II of "Mind Media BV", Hertzen, the Kingdom of the Netherlands) are presented. The psycho-physiological results of simulation of 5 laboratory-created mental states are given: the calmness of a student who relaxes without any cognitive tasks; reading a poem by the student by heart from the school curriculum; the solution of the cognitive task, which is a distinction and classification of 7 images in color and form (stress test, singing the song verse, singing a song with a positive visual and acoustic accompaniment.) The medical and psychological data obtained in the course of the tests testify to the need for a harmonious combination of three components of psychophysiological functioning in the students' learning, which include the modes of silence, speech and singing, which include the efficiency and versatility, comfort and access tions for all children regardless of the actual level of intellectual development and health.The research covers the psycho-physiological effects of the methodology, the results of medical-psychological examinations, comparison and analysis of equipment parameters of the five psychophysiological states of the student, the main of which is silence, speaking and singing. The significance of harmonious learning in connection with socially caused harm, the emergence of dependencies and the inverse self-realization of children and adolescents dangerous to their health and social cohabitation is revealed. The conclusion is made that the basic psychophysiological bases of harmonious functioning are the ability to use psychological mechanisms of self-regulation, which include silence, speaking and singing.

Keywords: training and health; psychophysiological examination; modeling of mental states; self-regulation ability; harmonic functioning

Introduction

The medical and psychological council of the Clinic for Active Therapy of Special Conditions under the leadership of Doctor of Medical Sciences, Professor Yury Pakin, with our participation, conducted a medical and psychophysiological examination of a 12-year-old secondary school student after completing his primary education. The student's education in primary school was accompanied by motor disinhibition, uncontrollable hyperactivity with attention deficit syndrome, nocturnal urinary incontinence as a pronounced case of school neuroticism.

Literary sources considered similar situations in the form of connections between neuroticism and the functioning of several emotion processing networks in the brain, especially during exposure to negative stimuli[1]. game personality testing as a way to assess personality in childhood and adolescence [2]. psychometric evaluation 12 - item scale of neuroticism EPQ-R in 502,591 participants of the UK Biobank using item response theory (IRT) [3]. using the Eysenck personality questionnaire according to the theory of multidimensional response to questions [4]. interoception in health and illness [5].

Photo 1: The procedure of medical and psychophysiological examination on the device "NEXUS - 10" ("NEXUS - 10" Mark-II) and the state of rest of a student who is sitting relaxed without presenting any cognitive tasks.

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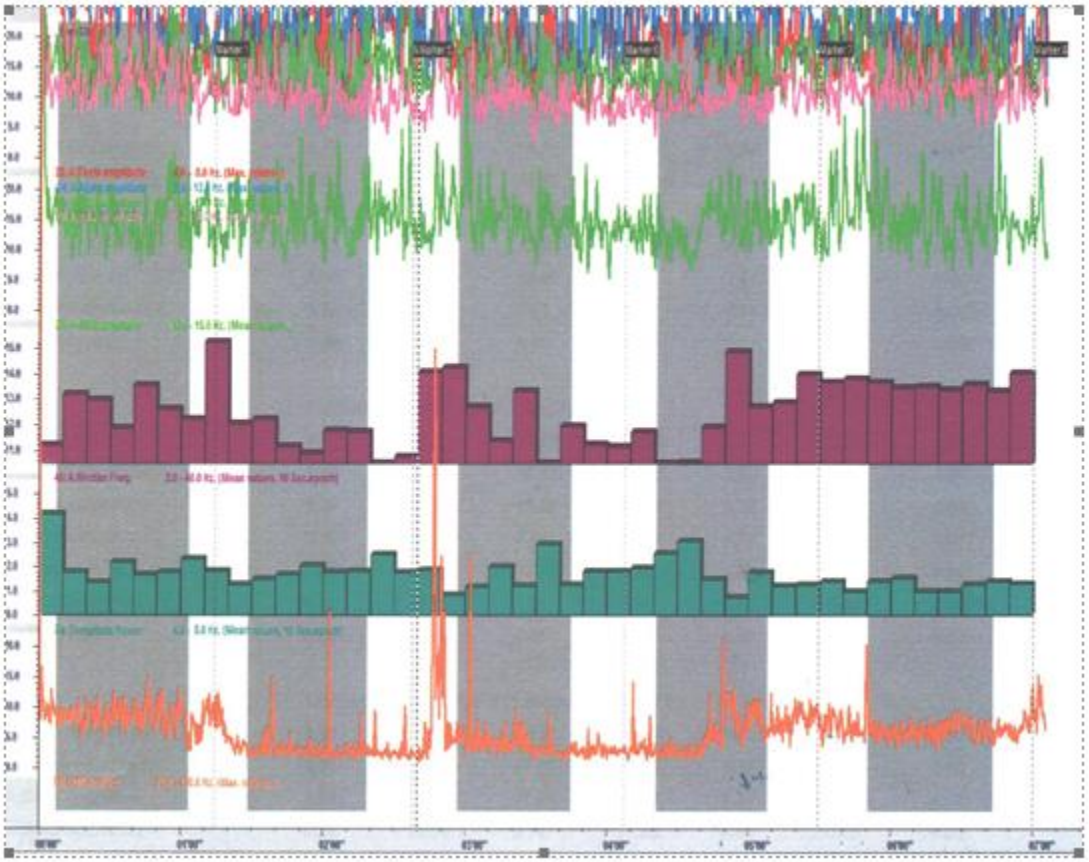
The results of the medical and psychophysiological examination on the "NEXUS - 10" device ("NEXUS - 10" Mark-II manufactured by the Kingdom of the Netherlands) are presented in multiparametric table 1:



As can be seen from the given multiparametric table 1, the medical-psychophysiological examination consists of 5 laboratory-created mental states, sequentially marked on the image in gray[1]. The general consultative conclusion about the student's psychophysiological condition indicates a high level of restorative potential - "HF"=1051 ms2; moderate level of mobilization potential - "LF"=930 ms2; moderate level of hormonal modulation of regulatory mechanisms - "VLF"=1348 ms2; predominance of the energy potential restoration process - "LF <HF"; stress index – 98 units – within normal limits; adaptive capabilities of the organism above the average level - "TP"=1239 ms2; heart rate (HR)=70 per minute is normal; frequency of respiratory movements (CHDR)=10; 56 per minute is the norm; respiratory cardiac arrhythmia during diaphragmatic breathing (DAS) = 25 - normal; skin conductance (SC) = 3.7 μS (microsiemens, i.e. millionths of a Siemens) – moderately increased, which indicates the predominance of the tone of the sympathetic nervous system; finger temperature (T) = 25.71o C, which corresponds to the norm; the amplitude of the Alpha rhythm is 23.8 n/V (nanovolts, i.e. billionths of a volt); Beta rhythm – 9.97 n/V, Theta rhythm – 21.09.5 n/V, dominant frequency – 12.78 hertz; the test with closed eyes is positive; the amplitude-frequency characteristics of the electroencephalogram correspond to the age norm; Theta/Beta ratio is 1.82 μV (microvolts, i.e. millionths of a volt) below the age norm, which may indicate attention deficit. Thus, an objective examination on the NEXUS-10 device revealed the predominance of the tone of the sympathetic nervous system, a decrease in the adaptation capabilities of the body in combination with attention deficit syndrome.

Five psychophysiological states

In the process of medical and psychophysiological examination of the student on the NEXUS - 10 device ("NEXUS - 10" Mark-II manufactured by "Mind Media BV", Heerten, the Kingdom of the Netherlands) in the clinic, 5 laboratory-created mental states were simulated: 1. The state of rest of a student who sits relaxed without presenting any cognitive tasks. 2. Student reading a poem by heart from the school curriculum. 3. Solving a cognitive task, which consists of distinguishing and classifying 7 images by color and shape (stress test). 4. Singing a song verse. 5. Singing a verse of a song with positive visual and acoustic accompaniment of the educational audio-video guide of the "Pisneznayka" series, which was aimed at creating the necessary external emotional background.

Photo 2: The procedure of medical and psychophysiological examination on the device "NEXUS - 10" ("NEXUS - 10" Mark-II) and the state of reading a poem by heart from the school curriculum.

The results of the medical and psychophysiological examination are presented in Tables 2 – 6. Thus, the mental state of a student who is in a state of relaxed rest without presenting him with any cognitive tasks is presented in Table 2:

№	Channel	Values of statistical indicators:				
		minimal	maximum	average	variability	standard deviation
0	1	2	3	4	5	6
1.	Theta amplitude	3.69	57.81	21.09	85.33	9.24
2.	Alpha amplitude	3.04	70.10	23.80	161.39	12.70
3.	Sensor rhythm (SMR amplitude)	0.69	30.14	11.38	34.67	5.89
4.	Beta amplitude	0.28	41.78	9.97	26.22	5.12
5.	Prevailing cerebral frequency (Median Freq.)	4.00	21.00	12.78	8.40	2.90
6.	The relationship between slow-wave and fast-acting brain activity (Theta/Beta Power) – marker of ability to focus attention	0.23	6.49	1.82	1.39	1.18
7.	Muscle artefacts (EMG Artifakt)	1.28	17.11	6.96	4.53	2.13

Table 2: A mental state of relaxed calm without presenting any cognitive tasks

Table 2 shows the highest variability indicators among all five samples Theta and Alpha rhythms are 85.33 and 161.39, respectively, which indicates excessive internal tension, the inability to relax, the transition to an intermediate state between alertness and sleep, which slows down in the range of brain waves from 4 to 8 Hz at that time, as the average value of the Theta-rhythm indicator exceeds this norm. Transferring this individual state from the clinical laboratory to a noisy classroom, it is possible to predict with confidence that the internal tension of the student, recorded by the apparatus, will certainly appear on the outside as excessive excitement, and with the obtained underestimated indicators of the ability to concentrate attention, and therefore - incomplete meaningfulness of actions, his behavior will lead to the emergence of misunderstandings with classmates and teachers: conflict situations, the cause of which can be precisely his psychophysiologically determined peculiarities of age development. A certain improvement in the student's psychophysiological state is associated with a change in the external direction of this internal tension - he was given individual attention and asked to read aloud a poem from the school curriculum.

Indicators of the student's mental state in the process of reading a poem from the school curriculum are presented in Table 3:

№	Channel	Values of statistical indicators:				
		minimal	maximum	average	variability	standard deviation
0	1	2	3	4	5	6
1.	Theta amplitude	2.72	42.25	16.88	52.21	7.23
2.	Alpha amplitude	1.26	58.72	20.24	121.98	11.04
3.	Sensor rhythm (SMR amplitude)	1.58	35.75	12.12	37.12	6.09
4.	Beta amplitude	0.28	26.07	7.64	16.98	4.12
5.	Prevailing cerebral frequency (Median Freq.)	7.00	18.00	11.52	2.76	1.66
6.	The relationship between slow-wave and fast-acting brain activity (Theta/Beta Power) – marker of ability to focus attention	0.31	7.01	1.80	1.36	1.17
7.	Muscle artefacts (EMG Artifakt)	0.66	26.08	2.38	2.60	1.61

Table 3: A student reading a poem from the school curriculum

As can be seen from Table 3, the proposed activity, in which, in our opinion, the poetic rhythm and melody of what is read has a certain influence, significantly changes the indicators of the psychophysiological state: a decrease in the variability of most brain rhythms indicates a certain harmonization of the state of the psychophysiological functioning of the child. In particular, the variability of Theta rhythm (Theta amplitude) decreased from 85.33 to 52, 21 or by 32%, Alpha rhythm (Alpha amplitude) - by 39, 41 or 24%, Beta rhythm (Beta amplitude) - by 9.24 or 35%, the predominant brain frequency (Median Freq.) - by 5.64 or 67%, the ratio between slow-wave and fast-wave brain activity (Theta/Beta Power) as a marker of the ability to concentrate attention - by 0.03 or 2 %, the sensorimotor rhythm (SMR amplitude), which reflects the degree of sensorimotor effort required to read the poem aloud, slightly increased - by 2.45 or 7%, and muscle artifacts - by 3.14 or 43%, since reading the poem out loud is a muscular action. There are no significant differences in psychophysiological measurement of certain specifics of imaginative and logical thinking developed in the pedagogical environment. In this case, the transition to a logical way of thinking does not increase, but on the contrary - reduces the internal situational tension.

Indicators of the mental state of the student in the process of solving the cognitive problem are presented in Table 4:

№	Channel	Values of statistical indicators:				
		minimal	maximum	average	variability	standard deviation
0	1	2	3	4	5	6
1.	Theta amplitude	2.22	42.26	16.85	42.08	6.93
2.	Alpha amplitude	1.87	69.76	20.53	109.66	10.47
3.	Sensor rhythm (SMR amplitude)	0.98	49.97	11.89	44.43	6.87
4.	Beta amplitude	0.65	27.69	7.71	18.26	4.27
5.	Prevailing cerebral frequency (Median Freq.)	6.00	23.00	12.03	5.95	2.44
6.	The relationship between slow-wave and fast-acting brain activity (Theta/Beta Power) – marker of ability to focus attention	0.12	6.58	1.72	1.56	1.25
7.	Muscle artefacts (EMG Artifakt)	0.65	35.35	3.10	5.33	2.31

Table 4: Solving a cognitive problem

As can be seen from the indicators of the psychophysiological state presented in the table. 4, solving the cognitive task led to a further decrease in the variability of brain functioning as a process of harmonizing the state of psychophysiological functioning of the child. Thus, the variability of the Theta rhythm (Theta amplitude) decreased, compared to the table. 3 from 52.21 to 42.08 or by 20%, Alpha rhythm (Alpha amplitude) - from 121.98 to 109.66 or by 10% with a natural increase in the sensorimotor rhythm (SMR amplitude) necessary for performing thinking actions from 37.12 to 44.43 or by 16% and the predominant brain frequency – from 2.76 to 5.95 or by 54%. The rest of the indicators did not undergo significant changes, although the ratio between slow-wave and fast-wave activity of the brain (Theta/Beta Power) as a marker of the ability to concentrate showed a tendency to increase from 1.36 to 1.56 or by 13%.

Based on the subject of the application to the Clinic for Active Therapy of Special Conditions, which includes hyperactivity with attention deficit syndrome, already at the initial, diagnostic stage of psychological intervention, the performance of a cognitive stress test received a corrective value, as it contributed to the identification of the ability to concentrate, the scope of which provides more than one ten possible psychological changes for the better. How does silent mental activity

differ from singing in its psychophysiological meaning for the child's organism?

The results of measuring the student's psychophysiological state while singing a verse of a Ukrainian song are presented in Table 5:

№	Channel	Values of statistical indicators:				
		minimal	maximum	average	variability	standard deviation
0	1	2	3	4	5	6
1.	Theta amplitude	2.49	41.22	16.52	52.88	7.27
2.	Alpha amplitude	2.45	57.71	19.29	97.26	9.86
3.	Sensor rhythm (SMR amplitude)	1.29	27.84	10.86	28.35	5.32
4.	Beta amplitude	0.56	21.99	7.54	13.94	3.73
5.	Prevailing cerebral frequency (Median Freq.)	7.00	22.00	12.13	7.22	2.69
6.	The relationship between slow-wave and fast-acting brain activity (Theta/Beta Power) – marker of ability to focus attention	0.11	11.07	1.86	2.34	1.53
7.	Muscle artefacts (EMG Artifakt)	0.62	21.56	4.46	8.87	2.98

Table 5: Singing a song verse

It can be seen from Table 5 that the indicator of the harmonization of the child's psychophysiological functioning is the decrease in the variability of most brain rhythms during singing. An increase in Theta rhythm (Theta amplitude) from 42.08 to 52.88 or by 20% is an indicator of calm cheerfulness, a state of free associative thinking, insights and new ideas, which proportionately changes the predominant brain frequency (Median Freq.) - from 5.95 to 7.22, or by 18%, and the ratio between slow-wave and fast-wave activity of the brain (Theta/Beta Power) as a marker of the ability to concentrate attention from 1.56 to 2.34, or by 34%. At the same time, the indicators of Alpha rhythm (Alpha amplitude) decrease from 109.66 to 97.26 or by 11%, sensorimotor rhythm (SMR amplitude) from 44.43 to 28.35 or by 36%, Beta rhythm (Beta amplitude) – the fastest waves, the frequency of which varies from 14 to 42 Hz, associated with cheerfulness and concentration, from 18.26 to 13.94, or by 24%. Such proportionality in the improvement of psychophysiological functioning, caused by the solo singing of a song verse, has a pronounced self-regulatory value, but at the same time – and significant prospects in reaching its optimum. We draw attention to the fact that in this case the verse of the Ukrainian song was performed solo, and therefore it is a solitary singing. Based on the data presented in this table, in our opinion, we can say that if we hear that the student started singing a song himself, then he thereby improves the state of his psychophysiological functioning, which is expressed in well-being and improved mood.

Prominent Ukrainian songwriter, founder and long-time leader of the Ukrainian folk choir "Homin" Leopold Ivanovich Yashchenko once told me in a private conversation, that, in his opinion, every person who walks down the street should sing at the same time: he is stopped only by a wrongly and therefore harmfully educated society. "If a sober person starts singing on the street," Leopold Yashchenko said, "then, of course, the alcoholic consciousness of others will be sure that the sober person is not drunk. Looking at adults, even fewer would dare to do this to a teenager. And only a child can sing when he wants to, if his parents teach him to do so. It is singing that should determine the mood and consciousness of people for whom alcohol is superfluous and only hinders the joy of singing and the good mood caused by singing." The psychophysiological data shown in Table 5 confirm this. But how does joint, choral singing, or its analogues, which reinforce individual efforts, affect the human body[2,3].

For this purpose, a psychophysiological examination of a student who sang a verse of a song with positive visual (visual) and sound (acoustic) accompaniment of the educational audio-video guide of the "Song Connoisseur"[7]. series was conducted. The results of the survey are presented in Table 6.

№	Channel	Values of statistical indicators:				
		minimal	maximum	average	variability	standard deviation
0	1	2	3	4	5	6
1.	Theta amplitude	2.26	41.45	15.96	41.14	6.41
2.	Alpha amplitude	2.01	54.67	17.98	87.20	9.34
3.	Sensor rhythm (SMR amplitude)	1.88	37.32	11.69	34.46	5.87
4.	Beta amplitude	0.39	26.13	9.19	21.49	4.64
5.	Prevailing cerebral frequency (Median Freq.)	7.00	22.00	13.46	5.17	2.27
6.	The relationship between slow-wave and fast-acting brain activity (Theta/Beta Power) – marker of ability to focus attention	0.13	7.98	1.24	0.84	0.92
7.	Muscle artefacts (EMG Artifakt)	1.41	11.20	5.10	1.99	1.41

Table 6: Singing a song verse with positive visual and acoustic accompaniment

It can be seen from Table 6 that singing a verse of a song with positive visual and acoustic accompaniment of the educational audio-video guide of the "Song Teacher" series is optimal for harmonizing the student's psychophysiological state, as it is characterized by the lowest variability of indicators, and therefore the feeling of comfort is the most stable. Thus, the lowest level of Theta rhythm (Theta amplitude), in particular, a decrease from 52.88 to 41.14, or by 22%, indicates its transition to a rhythm of calm thinking, concentration. A decrease in the Alpha rhythm (Alpha amplitude) from 97.26 to 87.20, or by 10%, the predominant brain frequency from 7.22 to 5.17, or by 28%, the ratio between slow-wave and fast-wave brain activity (Theta/Beta Power) from 2.34 to 0.84, or by 64%, it records the relaxation of the entire body, a pleasant harmony of well-being, and a pronounced ability to concentrate. The implementation of focusing attention on the perception of positive visual and acoustic accompaniment with the simultaneous singing of a verse is reflected in the increase in the activity of the fastest brain waves - Beta rhythm (Beta amplitude) increased from 13.94 to 21.49, or 35%, sensorimotor rhythm (SMR amplitude) from 28.35 to 34.46 , or by 18%.

Discussion

For discussion, we present a comparison of the obtained indicators of variability of three psychophysiological states:

☼ speaking compared to silence according to the 7 indicators of the variability of Theta rhythm (32%), Alpha rhythm (24%), Beta rhythm (35%), predominant brain frequency (67%), the ratio between slow-wave and fast-wave activity brain (2%), sensorimotor rhythm (7%), muscle tension artifacts (43%), improves the child's psychophysiological condition by an average of 30% or a third;

☼ singing with positive visual and acoustic accompaniment compared to speaking reduces the indicators of Theta rhythm (Theta amplitude) from 52.21 to 41.14, or by 21%, Alpha rhythm (Alpha amplitude) from 121.98 to 87.20, or by 29%, of the sensorimotor rhythm (SMR amplitude) from 37.12 to 34.46 or by 7%, the ratio between slow-wave and fast-wave brain activity (Theta/Beta Power) as a marker of the ability to concentrate attention from 1.36 to 0.84, or by 38%, muscle tension artifacts from 2.60 to 1.99, or by 23% with an increase in the activity of the Beta rhythm (Beta amplitude) from 16.98 to 21.49, or by 21%, and the predominant brain frequency (Median Freq.) from 2.76 to 5.17, or by 47%. According to the same 7 indicators, the changeability, which indicates an improvement in the psychophysiological state, is 20% or one fifth of the previous state of activity, well-being and mood.

The medical and psychological data obtained in the process of using the music-pedagogical technology "Pisneznayka" testify to its effectiveness and universality, comfort and accessibility for all children, regardless of the current level of intellectual development and state of health. This makes it possible to achieve the following pedagogical results:

☼ children's interest in learning;

☼ prevention of learning difficulties on the basis of this interest and therefore faster assimilation of knowledge according to the school program in the process of creative educational activities attractive to children - listening and singing educational songs, watching specially created musical films for educational purposes, performing movements to the beat of musical accompaniment, developing solving creative problems and tasks systematized in the study guide. In particular, mastering the entire table of multiplication and division within one month, mastering adding numbers with a transition through 10 without decomposing numbers, quickly mastering the ability to read in whole words, which prevents the occurrence of dyslexia;

☼ preservation and improvement of well-being, mood and activity of children, which are the main factors of preservation of physical, mental and spiritual health of students, prevention of distress related to learning;

☼ harmonization of the psychophysiological functioning of the body of students and teachers in the educational process.

Why is this important for life?

Concern for one's own future, and it is defined and created every 25th anniversary by new and new generations, characteristic of most European countries, including Ukraine, in which the highest actual responsibility belongs to the family in such forms that are still capable of supporting birth and vital functioning children, and the smallest, political, to the highest bodies of the state. The opinion of specialists, for example, regarding the distress of six-year-old children, epidemically inherent in them in connection with the total legislative decision on the implementation of education from the age of 6, remained their personal opinion, which in no way affects the state policy in the field of education and childhood protection. Based on the results of clinical and outpatient medical and psychological examinations, the majority of specialists, according to our generalization, state a stable ratio of health disorders among future 6-year-old first-graders: 51.8% of them have chronic pathologies, functional disorders - 25.5%, increased mental fatigue - 39%, anxiety - 37%, distress states - 55%, and a little less than a quarter of all six-year-old children go to school completely healthy - only 22.7% of them.

The problem, artificially created politically, contrary to the psychophysiological realities of natural child development, has acquired a chronic character and its solution in the current public consciousness is postponed for the future, and therefore - for future generations, who are already experiencing various difficulties and are facing harm to their own health on the ledge of the preschool and school periods of his life, just as for three decades after the nuclear disaster at the Chernobyl NPP named after Vladimir Lenin in 1986, no other, more intellectualized, solution to the problem of nuclear security in Europe has been found until now, except for covering the calculated year of exploitation of the sarcophagus by the second, already French, with the aim of postponing its solution until the third covering. Children, too, hiding from school fears, often cover their heads with a blanket to protect themselves from the trauma of schooling for a longer time, but a warm blanket saves them very little from the inexorable political decision about early, before the onset of school maturity, attendance at an educational institution.

Subjects of political and economic influence on children's health remain outside the scope of our psychological work, but since everything in the world is connected with everything, we have as our moral scientific duty at least to name this lowest in the hierarchy of needs connection Prominent Ukrainian narcologist Yury Pakin in his book "Treatment of drug addiction: success factors" psychologically accurately noted in this regard that "a person who used drugs remembers this state of euphoria for the rest of his life. Unlike other people, she specifically imagines the pleasure arising from the use of the drug. It will always be a real temptation, which can sometimes manifest itself very persistently, forming a state of so-called "craving" that must be overcome" [8-58]. It should be noted that the basis of the disorder of habits and urges is a violation of a person's volitional functions, and therefore alcoholism, drug addiction, toxicomania, gambling and kleptomania, as confirmed by our many years of clinical practice, have a common genesis and are situationally or habitually combined.

An uncontrollable desire for money, drugs, alcohol is preceded by internal tension, dissatisfaction with oneself and everything that is part of the

actual perception, situational anxiety increases, which is replaced by a state of heightened excitement, high mood, euphoria from what has been done: money and values obtained in any way, who are recognized as such an abulic (freedom) person. In this regard, the desire for money is the basis for the use of drugs, alcohol, being in a state of gambling excitement.

Our drawing attention to the volume of funds related to the transportation of drugs to the countries of the European Union aims to indicate the political and economic genesis of the emergence of excessive monetary temptations that are not able to overcome the future anxious, tired, traumatized by age-related schooling with 6 -year-old boys and girls burdened with chronic pathologies and functional disorders. The first consequences of early school traumatization, other societal harms, including schooling from the age of 6 for immature children, is a corresponding decrease in the age of the first use of drugs, which Professor Yuriy Pakin draws attention to: "In Ukraine, there has recently been a trend towards the rejuvenation of drug addiction: the age of the first use of drugs is 13-15 years, and in some cities of Ukraine it is much lower - 9-13 years" [8, p. 12]. The disharmonious development of children, the increase in the number of child and adolescent suicides, and related mental disorders is a problem not only for Ukraine, but also for other countries of the world, Japan, the United States, in which it receives the most open discussion, for example, such exceptional cases when children because of money, for example, to visit sexual sites, they kill their parents. Along with this, the formation of mental addiction syndrome (obsessive drive) and physical addiction syndrome (loss of self-control) has its own genesis in preschool and school childhood.

In fact, only the personal characteristics of a child, teenager or young person are important, which are the common psychological basis for the emergence of future dependence (addiction). Professor Yury Pakin, one of the most outstanding modern narcologists, gives them from many years of medical experience: "People who use drugs, most often have common personality traits, which seems to become a prerequisite for their future addiction. These are, first of all, self-doubt, indecisiveness in the situation of choosing behavior, inability to resist the pressure of others and defend one's beliefs, low level of self-esteem, emotional instability. These traits are especially clear in teenagers who start using drugs to feel like adults, independent people, supermen. As a rule, these are young men and women who have problems in communication or learning" [8-13]. And this means that these children and teenagers form risk groups long before more experienced teenage drug dealers with the same personality traits for their own financial enrichment will "put them on the needle." Again, we draw your attention to the fact that greed for profit, childish corruption, dependence on money obtained in any way, even at the expense of the health and lives of other people, is primary in the emergence and progression of other harmful habits. Among children with psychoneurological diseases, chronic somatic disorders, social dysfunctions, pathological habits - alcoholism and drug addiction - are more common.

Conclusion

The individual thinking of children takes place in a much greater variety of manifestations than is required by an education system programmed on the basis of the self-sufficient needs of adults: the ideas about the world known to them, the amount of money and hours needed for the workload of teachers, the use of children for mutual checks of their own self-efficacy in standardized forms of psychogenic tests pedagogical capacity - state final certification, external independent assessment, etc. All these are factors of chronic tension of the nervous system of children, which, in combination with genetic, prenatal, natal and postnatal harms, and other adverse influences create a pathological environment of inverted self-realization of children and adolescents, dangerous for their health and social coexistence.

That is why it is important to create, develop and implement in educational activities methods of learning that are acceptable and comfortable for all children, regardless of the organization of their higher nervous activity, the degree of manifestation of psychophysiological aptitudes, the state of health in order to harmonize their relationships, improve well-being and raise their own self-esteem and the level of lifelong harassment, as provided by the author's medical and pedagogical project "Harmony of intelligence and health[2].

Informed consent

The patient's parents and the patientpatient agreed to publish this manuscript.

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