HARDWARE AND PSYCHOLOGICAL INDICATORS OF INDIVIDUAL OBJECTIVIZATION OF PSYCHOPHYSICAL ABILITIES OF YOUTH

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ABSTRACT

The article substantiates the relevance of tempering youth on the psychophysiological basis of identification of a young person in his own self-awareness. Its individual psychological reflection is embodied in the psychophysiological parameters of specially created for this purpose and manufactured psychological devices "Duzhin", "Pyatra", "Rin" and others, which are distinguished by the uniqueness of both the design and the technical implementation. The psychological system "Duzhin" ensures the definition and development of the ability to emotional and volitional self-regulation without age restrictions, as a rule, starting from the age of three - with the acquisition of the ability to imitative reproduction of psychomotor action. Measuring the coefficient of emotional-volitional regulation using the psychological device "Duzhin" allows one to establish the individual dynamics and development of emotional-volitional regulation caused by the development of primary control of impulses - psychomotor processes of brain self-control of one's own activity by periodically determining the variability of its coefficients; to develop the ability for emotional-volitional self-regulation of psychomotor processes of cerebral self-control of one's own activity, to focus the volitional function of the psyche on conscious management of one's own actions and regulation of behaviour, to carry out psychological correction of impulsive behaviour caused by a violation of impulse control. The "Pyatra" device has five main levels of complexity, the mastery of which reveals psychomotor abilities in their creative expression, allows you to go beyond the proposed standard tasks and randomly try to implement your own options for performing psychomotor exercises. "Piatra" contains a subtest for measuring the psychomotor praxis of thinking "Rin for distinguishing indicators of mental development F-70-73, determining related intellectual functioning as a conditional mental norm - related to the sufficiency of mental development, as well as a special mental ability. The indicators recorded in the protocol are given psychological examination according to the scale of the psychomotor praxis of thinking "Rin". The fundamental principle embodied by the above means of objectification of individual self-awareness of psychophysical abilities is the mythologeme of community, which includes

everyone and does not reject anyone from the human population commensurate with the possibilities of their own psychophysical development.

Keywords: *lifelong projection, individual-psychological reflection, psychophysiological parameters, prerequisites of individual abilities, emotional-volitional regulation, psychomotor praxis of thinking.*

INTRODUCTION

Own self-awareness in the correlation of oneself with the future lifelong projection of self-realization requires certainty and reliability of the fundamental foundations. The identification of a young person and youth as an age community in their own self-awareness is based on this, their formation, the construction of an individual life status, its ordering, creation and habituation.

A young person's search for his self in conditions of rapid social change leads to the need for certainty, reliability, and a basis for building a solid structure of ideas about his future life. Such a basis is the individual psychological reflection of one's own uniqueness, implemented in psychophysiological parameters specially created for this purpose and manufactured according to our project by the Kyiv Telekom-pneumatik plant of the Medaparatura production association of the Duzhin, Pyatra, psychological facilities. Rin and other which are distinguished by the uniqueness of both the idea and the technical implementation.

METHODOLOGY AND PROCEDURES

Thus, the psychological system Duzhin is designed to determine and develop a person's ability for emotional and volitional self-regulation without age restrictions (Ramezanpour Susan & others 2016), as a rule, starting from the age of three - with the acquisition of the ability to imitatively reproduce the psychomotor action of separating the two hemispheres in opposite directions and focusing on them returning to the originally perceived form of one's integrity (Boltivets, S & oters 2022). The psychological system provides clarification of the presence and development of the primary control of impulses that characterize individual behaviour (Vardanyan, K. 2022). These possibilities of the psychological system are important for determining the features of psychomotor processes and cerebral self-control of one's own activity, which allows for individualization of recreational work for persons with attention deficit syndrome, hyperactivity, and other mental disorders (Karapetyan, V. 2021).

The name Duzhin is a semantic mythologeme (GEVORGYAN, S. & others) that expresses fortitude as a property of volitional effort in terms of its severity, that is, the presence and severity of willpower (Vardanyan, K. 2022). The method of application consists in providing the subject(s) with a ball connected on both sides by a strong string, with a proposal to show

their strength - to stretch the connecting string with the fingers of both hands so that the two halves, which are connected, spread in opposite directions between themselves by magnetic attraction, constitute a whole sphere, or figuratively - "tear the sphere into parts". This proposal is most often perceived by the examinees as unattainable, impossible to fulfil, causes surprise, disbelief in the reality of the task, as an obvious exaggeration or a joke by everyone, except for people who have symptoms of autism, all types of schizophrenia, F - 73 "Profound mental retardation", F - 72 "Severe mental retardation" and partially - F - 71 "Moderate mental retardation" and some other similar chronic mental diseases.

After the first separation of the ball into two parts, the examinee is convinced of the attainability and ease of completing the task, which causes everyone a pleasant emotional uplift of varying degrees of expression, which is an incentive for further performance of work that requires willpower. In this way, the emotional exertion caused by the initial feeling of achieving the impossible, that is, what seemed and was imagined as unattainable, ensures the further use of this emotional energy to implement the cycle of volitional efforts.

PSYCHOPHYSIOLOGICAL PARAMETERS

The determination of the basic ability to emotional-volitional self-regulation consists in the task of unfolding the ball 100 times in such a way that after each unfolding it refolds and becomes whole. The examinee calls aloud the serial number of each successful return of the ball to its original position from one to one hundred times.

The total distance between the red marks is 6 cm. The initial position of the ball is set in the centre between two red nodes at a distance of 3 cm each from the central section of the ball.

A distance of 3 cm to the central cross-section of the sphere from each of the red marks is standard when examining adults, teenagers, and school-age children, however, when examining preschool children, usually 3-6 years old, the entire space and beyond the red marks are used as follows in such a way that the child is able to unfold and assemble the ball in a convenient way from both sides at a distance of his choice.

If, for certain reasons, the examinee cannot do this due to the lack of counting skills up to 100 (underdeveloped counting skills, mental retardation, other psychophysical disabilities), the counting is performed aloud by a clinical psychologist.

For example, in the case of F - 71 "Moderate mental retardation" together with the examinee's inability to keep numbers, the help of a clinical psychologist in creating a motor image of the action that should be reproduced, eliminating excessive psychomotor tension, is of great importance.

At the same time, the clinical psychologist counts the cases when the two particles of the

ball did not return to their original position and the examinee is forced to fold them by touching them. The number of cases of such touches is added, and their sum is subtracted from 100, if the test is carried out in full.

Formulas for determining results

Thus, during the performance of 100 opening and folding of the ball, the number of touches to the halves of the ball is counted to return it to its integral shape.

The formula determines the coefficient of emotional-volitional regulation:

K=100 – D, where (1)

D is the number of touches to the halves of the ball to return it to its original shape.

For example, if out of 100 opening and folding halves of the ball, the examinee had to return them to their original position 12 times, the coefficient of emotional-volitional regulation will be 88%:

K=100 – 12=88% (2)

In the case of failure of the examinee at any of the stages of performing 100 openings and folding of the ball, the coefficient of emotional-volitional regulation will actually be the number of performed opening and folding, except for touching the halves of the ball in order to return it to its original shape.

For example, if the examinee performed 47 unfolding and additions, of which in 8 cases he used touching the halves of the ball to return them to their original position, the coefficient of emotional-volitional regulation is determined as follows:

K=8:47• 100 =17.02%, where (3)

17.02 is an indicator of failure to achieve the desired regulation of psychomotor actions, a numerical expression of the number of motor errors. Incomplete volitional regulation is also evidenced by the cessation of further actions, refusal to reach the previously established norm of 100 syllables. Based on this, 47 performed actions, regardless of the result, are 47% of volitional efforts made, that is, 47% of the revealed ability to volitional regulation compared to the social-psychological population norm of 100%, inherent or such that should be inherent as a psychological norm of vital activities for everyone in the human population. Compared to this population norm, individual success is 47%, from which the achieved individual indicator of the quality of performed actions does not take into account and therefore removes 17.02% of errors:

47 – 17.02 = 29.98, where (4)

29.98 ≈ 30% is the general coefficient of emotional-volitional regulation as a revealed ability.

Here is another example:

Of the proposed 100 actions, 52 have been implemented, which is 52% of their total volume. 10 of these 52 actions were successful, and therefore the calculation of individual success and, accordingly, the determination of the individual coefficient of emotional-volitional regulation is carried out as follows:

10:52·100=19.2%;

52 – 19.2% = 32.8% (5)

Thus, the coefficient of the revealed ability to emotional and volitional regulation is 32.8% of the general norm.

The results

Periodic measurement by a clinical psychologist of the coefficient of emotional-volitional regulation using the psychological device "Duzhin" allows:

1. To establish the individual dynamics and development of emotional-volitional regulation caused by the development of primary impulse control – psychomotor processes of cerebral self-control of one's own activity by periodically determining the variability of its coefficients.

2. To develop the ability for emotional-volitional self-regulation, which consists in the development of psychomotor processes of brain self-control of one's own activity of the periodically examined person, to focus the volitional function of the psyche on conscious management of one's actions and regulation of one's own behaviour, to carry out psychological correction of impulsive behaviour caused by a violation of impulse control.

Table 1 is used to save data in the process of examination using the psychological device "Duzhin" and the subsequent establishment of individual dynamics of the variability of emotional-volitional regulation.

K=100 – D, where (1)

Table 1

The results of the examination using a psychological device Dujin

Examination No	Full name	Date	Number of touches/total number of unfolds and folds performed	Coefficient of emotional and volitional regulation
1	2	3	4	5
1	Ko - co Maxim	06/21/2021	6/100	94%
2	Kl – co Volodya	06/21/2021	7/100	93%
3	Shm - ko Natalia	06/23/2021	7/100	93%
4	St – ii Dmytro	06/28/2021	27/100	73%

5	L – ur Yevhen	06/28/2021	10/52	32,8%

As can be seen from Table 1, examinations are numbered, and examinees are constantly added, and the same examinees can be repeated an unlimited number of times as much as is necessary both for their emotional and volitional regulation, and for their perceived need to monitor their own ability to emotional and volitional self-regulation. On the basis of these data, the average value of the coefficient of emotional-volitional regulation of each examinee can be established for a certain time period: a week, 10 days, and a comparison of the dynamics for the required period can also be performed.

Psychological exercises with the Duzhin device contribute to the development of psychomotor thinking and imagination of subjects at any age. The installation of two additional balls to prevent spontaneous emotional urges to direct corrections of the two hemispheres of the central ball creates additional opportunities for operating them and at the same time is a psychological means of focusing attention and regulating psychomotor impulsivity:

Additional possibilities of operating the psychological system Duzhin contribute to the transformation of psychomotor impulsivity of hyperactive examinees into self-discovered individual ways of successfully performing a series of proposed psychomotor exercises.

Psychomotor impulsivity, characteristic of hyperactive examinees, turns into manifestations of psychomotor imagination, which contributes to the general development of thinking.

DISCUSSION

An important feature of the application of the psychological device Duzhin is the possibility of preventing the subject's fatigue, which, with a norm of 100 units, can and should be completed at the initiative of the subject within his capabilities, which is expressed in satisfaction from the successful completion of the necessary part of it.

The semantic methodology of Pyatry contains a practical approach proposed and theoretically substantiated by Volodymyr Roments, at the end of the 20th century. Pyatra is the Ukrainian name for special places, usually five shelves, in which the potter places or inserts a ready, freshly made clay product. Nowadays, it can be argued that the Pyatra denoted the usual quantitative norm of pottery production. The process of transferring from the potter's machine to the drying place of the pottery is a psychomotor exercise that requires appropriate psychophysical abilities and a psychophysiological state appropriate for this psychomotor operation.

The psychological structure of Pyatra reflects these five conditional places, into which a

rod is inserted, originally glass, which was repeatedly broken in the process of practice and also repeatedly glued together. Therefore, we replaced it with duralumin, which reproduces the main outlines of the clay product in its shape. That is, a certain analogy. The potter needs attentiveness and coordinated movements so as not to break the finished clay product, and we have a duralumin rod as an analogue, which, unlike a slippery and fragile jug just removed from the potter's wheel, does not break or break.

The first examined patient was delighted with the very appearance of Pyatra. He was excited but barely managed the norm set before him: five times to place the larger end and five times the smaller end. Only 10, but barely with great effort. For more and more complexe is incapable, which he himself admitted. This is the recreational, habilitation and rehabilitation use of Pyatra as a method of formation or recovery by practicing the fine motility of the fingers of the left and right hands, and their motor coordination.

Confirmed capabilities

The Ukrainian psychological system Pyatra has five main levels of complexity, the mastery of which brings people the happiness of restored psychomotor functions of life. In the process of mastering the basic levels, patients often show psychomotor creativity, trying to go beyond the proposed task or randomly try their version of the exercise. Regardless of the extent to which such attempts are successful, this indicates their interest in mastering the system, and therefore contributes to the habilitation and rehabilitation process, strengthens its individualization, and therefore its significance for the individual.

The clinical psychologist can choose one option of complicating or simplifying the task according to the examinee's capabilities. Of particular importance are the first two levels, which form a sense of confidence in one's psychomotor abilities to cope with the next, more difficult ones, and, therefore should be accompanied by instructions for future success.

Along with this, the psychological device Pyatra manufactured by the Kyiv enterprise of medical and sanitary and hygienic equipment Telekom-pneumatic contains a subtest for measuring the psychomotor praxis of thinking Rin, the name of which comes from the designation of a spherical pebble carved by the rapid flow of a raging river. This subtest is especially good in terms of attractiveness for the patient, the possibility of quick execution and accuracy in distinguishing indicators of mental development from F-70-73: severe, severe, moderate and mild mental retardation, in particular, as a result of severe craniocerebral injuries, determining the mental norm and special mental ability.

Indicators of the psychological system Rin according to the scale of psychomotor thinking praxis are recorded in the psychological examination protocol, presented in the form of Table 2.

Table 2

Indicators of mental development (IQ) according to the Rin psychological system scale

№	Diagnostic value	David Wechsler scale (Wechsler Adult Intelligence Scale, WAIS)	Rin scale (reduced measurement units)	
1.	F – 73 Profound mental retardation (PMR)	19 and less	9 and less	Less than 5
2.	F – 72 Severe mental retardation (SMR)	20 – 34	10 – 14	5
3.	F – 71 Moderate mental retardation (ModMR)	35 – 49	15 – 19	6
4.	F – 70 Mild mental retardation (MilMR)	50 – 60	20 – 24	7 – 9
5.	Adequacy of intellectual development	70 – 84	25	10
6.	High mental ability	85 - 115	26 – 30	More than 10
7.	Especially high mental ability	No limit	31 and over	No limit

According to the indicators of mental development presented in Table 2, a psychological examination of representatives of various groups of young people with different health conditions, which determines their social status, was conducted. The results of the distribution of indicators of mental development are presented in Table 3.

Table 3

Indicators of mental development, recorded in the protocol of psychological examination according to the scale of psychomotor thinking praxis "Rin"

Number of units	%	Diagnostic value	Previously established diagnoses of the examined persons (indicated in accordance with the accompanying medical documents) or the status of a person	Distribution of the examined by diagnostic

				values
1	4	F – 73		
2	8	F – 73		
3	12	F – 73		
4	16	F – 73		
5	20	F – 73		
6	24	F – 73		
7	28	F – 73		
8	32	F – 73		
9	**36**	**F – 73**		
10	40	F – 72		
11	44	F – 72		
12	48	F – 72	Imbecility	3
13	52	F – 72	Imbecility	5
14	**56**	**F – 72**	Down syndrome	8
15	60	F – 71	Down syndrome, moderate mental retardation	10
16	64	F – 71	Down syndrome, moderate mental retardation	7
17	68	F – 71	Down syndrome, moderate mental retardation	5
18	72	F – 71	Moderate mental retardation (F-71), mild mental retardation (F-70), Down syndrome	11
19	**76**	**F – 71**	Moderate mental retardation	13
20	80	F – 70	Mild mental retardation (F-70), Down syndrome, X-fragile chromosome syndrome, F-70.0; F-70	21
21	84	F – 70	F-70	8
22	88	F – 70	Oligophrenia	10
23	92	F – 70	F-70	13
24	**96**	**F – 70**	F-70, F-70,0	17
25	**100**	**Related intellectual**	F-70.1, F-70, chronic mental disorder, F-72, 317, F-70, F-72, logoneurosis, F-	

		functioning (RIF)	71,0	32
26	104	High mental ability(HMA)	X-fragile chromosome syndrome, craniocerebral injuries	7
27	108	High mental ability(HMA)	Craniocerebral injuries	5
28	112	High mental ability(HMA)	Craniocerebral injuries	2
29	116	High mental ability(HMA)	Craniocerebral injuries	9
30	**120**	**High mental ability (HMA)**	Students of the Pedagogical University, clinically healthy	14
31	124	Especially high mental ability (EHMA)	Students of the Pedagogical University, clinically healthy	11
32	128	Especially high mental ability (EHMA) OBP3	Medical university students, clinically healthy	12
33	132	Especially high mental ability (EHMA)	Medical university students, clinically healthy	7
34	136	Especially high mental ability (EHMA)	First-year university students, clinically healthy	4
35	140	**Especially high mental**	First-year university student, 8-year-old child, psychophysiologist	3

		ability (EHMA)		
		Total:		237

As can be seen from Table 3, the results of measurements using the Rin psychological device confirm the established diagnoses, and in many cases clarify the scope of mental capabilities. In this regard, in our opinion, it is appropriate to expand the generally accepted definition of mental retardation by introducing the concept of mental capabilities into psychological circulation. The psychological definition of the concept of mental capabilities proposed by us is intended to combine the degrees of mental retardation as certain limited abilities of mental actions with the sufficiency of mental abilities, high mental abilities and especially high mental abilities. In a separate research paper, we will consider in more detail the urgent need to transform the psychological view of deep, severe, moderate and mild mental retardation into the definition of the different amount of mental abilities of a person, which determine the quality of his life and at the same time are sufficient for its implementation under certain favourable conditions.

The procedure of the Rin subtest sometimes seems too complicated: when everything is rolling, and therefore there is no clear gradation of achievements, the examinees can get confused, find themselves in a state of disorganization of their current consciousness, and therefore it is important to complete these efforts by defining what has been achieved and setting them for future success.

CONCLUSIONS

The psychophysiological foundations of wellness recreation include the determination of objective psychomotor health indicators, the validity of which is based on common methodological principles. This community includes everyone and does not exclude anyone from the human population commensurate with the possibilities of their own psychophysical development.

The tempering of youth is based on the identification of a young person in his own self-awareness, his formation, the construction of an individual life status, his arrangement, creation and habituation. Such a basis is the individual-psychological reflection of one's own uniqueness in the psychophysiological parameters of the psychological systems Duzhin, Pyatra, Rin and others, which are distinguished by the uniqueness of both the idea and the technical implementation.

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