

Developing a Values-Based Attitude towards People in Adolescent Rehabilitation Centres: Neurophysiological Patterns

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Abstract: *The article theoretically justifies, defines and experimentally verifies pedagogical conditions for developing a values-based attitude towards people in adolescents from rehabilitation centres, taking into account pedagogical, psychological and neurophysiological factors. According to the above-mentioned factors, such pedagogical conditions can be developed in the context of the following aspects: involving adolescents from rehabilitation centres in humane activity in terms of developing a values-based attitude towards people; making the “teacher-pupil” and “pupil-pupil” relationships more humanistic; increasing the readiness of rehabilitation centres teachers to develop a values-based attitude towards people in adolescents. Research methods are as follows: surveys, conversations, interviews; writing a mini-essay on the topic “Another Person in My Life”; the questionnaire on values-based orientations; the verbal associations method; discussions, tests, self-tests (assessing one’s behaviour in a conflict situation); the “eye to eye” adapted methodology; the story-role game “One Family”; pedagogical observations; an analysis of life and specially modelled situations. The international relevance of the article lies in the following: for the first time, pedagogical conditions for developing a values-based attitude towards other people in adolescents from rehabilitation institutions in Ukraine have been justified (elaborating and introducing the content, forms and methods; involving adolescents in humane activity; humanizing the relations in the teacher-pupil and pupil-pupil systems; enhancing the level of teachers’ readiness to develop a values-based attitude towards people in adolescents); relevant criteria with corresponding indicators have been determined. This can serve as an impetus to further research on the problem in question on the example of developing countries.*

Keywords: *humane activity, neurophysiological factors, humanization of relations, the teacher-pupil system, the pupil-pupil system, level enhancement, teachers’ readiness.*

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Introduction

The moral and spiritual crisis of today's Ukrainian society has led to the spread of competition in human relations and the changes in life values and ideals which are manifested in the attitude towards an individual as a tool. Hence, the problem of developing a values-based attitude towards people (Huidu, 2019), which is based on the principles of humanistic morality and neurophysiological patterns of perceiving oneself and others, becomes rather relevant. As far as neurophysiological patterns are concerned, they have long been ignored in the post-totalitarian society (Karasiyevych et al., 2021; Berbets et al., 2021; Sarancha et al., 2021). This problem has become especially acute today under the crisis of classical values.

The issue of developing a values-based attitude towards people in adolescents from rehabilitation institutions is becoming especially relevant. Indeed, the inclusive paradigm is becoming increasingly popular, and people with special needs are considered full members of the globalized society. On the other hand, adolescence is an important stage in developing a values-based attitude towards people. It is characterized by moral reflection, favourable conditions for relationships, feeling mature and selectivity in evaluating other people's qualities.

Insufficient coverage of the problem in question in Ukrainian scientific discourse adds up to the relevance of the article. Indeed, this particular problem is also reflected in some aspects: cultivating human values in younger adolescents in the process of solving moral problems (Biletska, 2004); fostering a sense of usefulness to others as a moral value of adolescents (Zahorodniuk, 2011); developing human values in high school pupils during extracurricular activities (Kyrmach, 2014); instilling a values-based attitude towards people in primary school pupils in the educational process (Tretiak, 2014).

In Ukrainian scientific discourse, which remains within the modernistic paradigm, a values-based attitude towards people is viewed as an integrative quality, determined by humanistic ethics and morality and based on such moral values as respect for dignity, equality, friendliness, reasonableness, self-sufficiency, readiness for constructive dialogue. At the same time, the category of "*developing a values-based attitude towards people*" is seen as a specially organized process defining an attitude towards people as the highest value, the subject of life, aimed at combining the knowledge of such moral values as respect for dignity, equality, friendliness,

reasonableness, self-sufficiency, readiness for constructive dialogue, the ideas about the ways of their manifestation and ability to be guided by them in one's activities. At first glance, such definitions correspond to the current humanistic paradigm. However, such an aspect as developing a values-based attitude towards other people in adolescents from rehabilitation centres remains poorly studied, even though it covers neuropsychological aspects of axiological and behavioural deficits.

The relevance of the problem under study is also caused by the *contradictions* between:

- an objective need of today's society to treat a person as the highest value and the insufficient elaboration of theoretical and rather outdated methodological principles for developing such an attitude in pupils from rehabilitation centres;

- a significant neuropedagogical potential of the educational process in developing a values-based attitude towards people in adolescents from rehabilitation centres globally and the insufficient methodological support of this process in Ukraine (Demchenko et al., 2021; Prots et al., 2021; Kosholap et al., 2021);

- the need to improve professional readiness of rehabilitation centres teachers to develop a values-based attitude towards people in adolescents and the insufficient elaboration of its content, forms and methods.

Thus, the topic of the research has been chosen, taking into account the relevance of the problem under study, its poor coverage and the existing contradictions.

The article aims to theoretically justify the problem in question in the context of neurosciences and study the current achievements of educational work in order to experimentally verify the new educational conditions for developing a values-based attitude towards other people in adolescents as part of rehabilitation.

The research hypothesis is based on neurophysiological research. According to it, one's attitude towards oneself, others and the environment relies on natural and acquired neural connections, which subconsciously contain meanings, values, attitudes, behavioural patterns and decision-making algorithms. This is manifested in individual emotional reactions, behavioural acts (actions), as well as in the system of symptom complexes of character, habits, emotional and volitional qualities. The hypothesis itself is as follows: if one takes into account the patterns of forming the above-mentioned neural connections, appropriate pedagogical conditions can lead to positive dynamics in a values-based attitude towards other people in adolescents from rehabilitation centres.

Literature Review

The problem of developing a value-based attitude towards people is covered in the classical works of some prominent researchers (Jung, 1994; Maslow, 2009; Rogers, 1999; Sartre, 1992). They analyzed the problem within their paradigms (humanistic psychology, collective subconscious, existentialism) carefully but one-sidedly. Many works, authoritative for rehabilitation pedagogy, consider this particular problem in different aspects of an educational approach under the modernist model: a humanistic approach to developing a values-based attitude towards people in the context of today's social changes (Zhurba, 2013); through developing a values-based attitude towards people in pupils and students (Amonashvili, 2004; Astashova, 2000; Biletska, 2004; Gerasymova et al., 2019; Halaidiuk et al., 2018; Ziaziun, 2000); in the light of psychological interaction with others (Bakhmat et al., 2019; Behas et al., 2019; Bezliudnyi et al., 2019; Bilousova, 1997; Buzhyna, 2002; Maksymchuk et al., 2018; Melnyk et al., 2019; Nerubasska & Maksymchuk, 2020; Shchurkova, 2005; Kaletnik et al., 2011; Sitovskiy et al., 2019; Sheremet et al., 2019). At the same time, one can observe that these researchers somewhat ignore synergistic social, culturological, educational and neuroscientific approaches, which would explain the mechanisms of developing values.

A detailed analysis of Ukrainian and foreign literary sources on pedagogical issues in the context of neurosciences allows one to identify the main patterns and approaches to developing the axiological-motivational sphere, including a humane attitude towards oneself, others and the environment. In general, several factors affect the development of values. First of all, these are current social factors: devaluation and relational nature of values, inspired by mass media values, pseudo-values in society and mass communications (trends, fashion, adolescent subculture). This shapes stable attitudes and determines behavioural decisions in socially significant situations (Camerer & Yoon, 2015). Second of all, neurophysiological (reflective) manifestations of adolescent's axiological-motivational sphere are largely determined by their nosological and social status: disorders of physical health; the presence/absence of addictions, deviations, social maladaptation, compulsive behaviour and self-concept disturbances. Also, there are other aspects of hereditary, family, cultural, pedagogical or even political (concerning the post-Soviet space) nature. This research deals with adolescents from rehabilitation centres who suffer from a disorder that complicates psychocorrection and, at the same time, allows one to see the negative symptom complexes rather clearly.

Furthermore, the problem of correcting the axiological-motivational sphere of adolescents with certain disorders or special needs in Ukraine lies in the fact that post-totalitarian countries have begun to implement the humanistic concept of education only recently. Humanistic values used to be considered a separate component complementing learning, rehabilitation and socialization. Only in recent decades has there been a gradual turn to such values as the pervasive and total characteristics of all human activities, all forms of social consciousness and governance. It became clear that anthropocentrism, subjectivity and humanism were not just aspects of one's attitude towards another but the only forms of knowledge acquisition, socialization and life in society (Kapska, 2009). Teachers gradually stopped considering the concept of "a humane attitude towards others" as a collective (group) phenomenon. Today, it is viewed as a matter of personal choice and the existence of the full-fledged "self" that are based on subjectivity, empathy, emotional interaction with the world.

Even though this research aims to transform educational conditions as part of rehabilitation, the leading neuropedagogues claim that it is possible to develop values as a stable subjective neuropsychological quality only in real-life conditions (in normal life) (Ha, Nhan & Quang, 2020). Internal mental resources play the main role in forming the need to change, self-educate, accept themselves and others as equal subjects. External conditions can only modify the nature of intersubjective interaction, which will form new neural connections and, as a result, meanings, attitudes and values. In this regard, the authors of the article have formed the first relevant subject-oriented educational condition that can be expressed by a general guideline: the humanization of relations in the "teacher-teacher" and "pupil-pupil" system.

Relevant sources prove that neuropsychological mechanisms of a role model, as well as the presence of an emotionally mature authoritative mentor, to whom the desired but so far deficient qualities are transferred, subconsciously stimulate adolescents to build their character, subconsciously evaluate and compare (Effendi Rustan et al., 2020). Besides, a stress-resistant "inspiring leader", who is the bearer of humanistic values, significantly enhances the development of the emotional-volitional sphere and the motivational-axiological potential (Effendi Rustan et al., 2020). Joint activities with such leaders activate the "flock – leader" mechanism that generates healthy competition and gradually develops the strength of character. The latter is an important factor in overcoming the selfish aspects of behaviour and accepting "oneself", "others" and "leaders" as a synergistic connection in a healthy competition for psychological ontogenesis without

violating boundaries. On the other hand, adequate and practically oriented behaviour and activity of such leaders act as a resource of motivation and stimulation of constructiveness, adequacy, practical vision of problems, justice and respect for personal sovereignty, which is the basis for practical implementation of humanistic ideas in an educational institution” (Colbert, Nicholson, & Kurucz, 2018). These patterns prove the following fact: it is also essential to form and modify the axiological-motivational sphere of teachers. Therefore, the next general educational condition lies in *enhancing the level of teachers’ readiness to develop a values-based attitude towards people in adolescents from rehabilitation centres.*

One of the main neuropsychological disorders in adolescents from rehabilitation centres, in which there are microsocial semi-natural mechanisms of survival – self-affirmation, is the following fact: most of the active time involves subconscious behaviour rather than conscious activity. It is clear that such conditions often violate the observance and realization of human rights, ignore the sovereignty and subjectivity of the weaker members of society. Consequently, adolescents are forced to make compromise decisions, equalize heteromorphic attitudes towards each other and gradually understand that achieving a common goal is possible during joint constructive activities with respect for human rights.

Given the specific contingent of pupils, moral aspects are best adjusted in the framework of relational ethics (Lourens, Watermeyer, & Swartz, 2019). This ethic allows establishing heteromorphic psychological channels of empathy and cooperation between the subjects with different characters, temperaments and lateral profiles.

All the above-mentioned principles are implemented only “in interaction” with the subjects and objects of the environment. The most effective form of such interaction is performativity as a process of generating knowledge, values and mutual consensus in spontaneous collective interaction. Some scholars theorize that performativity replaces communication since it is a broader and multifaceted phenomenon (Ball, 2016). In the context of traditional pedagogy, however, this process fits into the framework of the activity-related approach but taking into account spontaneous conditions, situations, context and current values and meanings that may arise when the subjects interact with different personalities under a common creative goal. Thus, the third educational condition is as follows: *involving adolescents from rehabilitation centres in humane activity to develop their values-based attitude towards people.*

The results from the implementation of these key conditions in the framework of the formative-diagnostic experiment are presented below.

Materials & methods

The formative and ascertaining stages of the experiment involved 242 adolescents and 50 teachers from boarding schools in Ukraine (the Koziatyn comprehensive educational complex (Levels 1-3) “V. Pidhorbunskyi School – Boarding School – Gymnasium”; Kryshchynets special boarding school of Tulchyn District of Vinnytsia Oblast Council; Zhmerynka boarding school (Levels 1-2) of Vinnytsia Oblast), the regional organization “Pokrova Family House” in Lviv, Nemyriv training and rehabilitation centre. This group of adolescents included 108 boys and 134 girls.

The conditions of the experiment and the pupils’ and teachers’ participation in it were agreed with the ethics committee of the regional department for family and youth. Importantly, the adolescents, their parents and teachers provided a written consent to participate in the experiment.

Regular pedagogical observation at the propaedeutic stage of the experiment has found that most pupils demonstrate social and/or neuropsychological deficiency (deprivation syndrome; difficulties in communicating with others; decreased empathy; rapid mood swings in their relations with adults). At the formative stage of the experiment, it was decided to use ethical fixation on constructive interaction with other people. It has contributed to developing positive acceptance of other people and communication skills in adolescents from rehabilitation centres. In particular, it was important to organize educational conditions justified in the “Literature Review” section. Below is their methodical analysis.

The pedagogical condition of *involving adolescents in humane activity* provided pupils with the opportunity to engage in group work for other people. The implementation of this condition implied organizing self-government; running campaigns (“Mercy”, “Let’s Knit Camouflage Nets for Fighters”, “The Veteran Lives Nearby”, “A Fairy-Tale for Kids”, “To Ukrainian Warrior with Love”, “A Christmas Angel”), engaging in project activities (“Let’s Measure Life by Deeds”, “Professions Teaching to Help People”), the web-quest “A Person who Creates Oneself”); helping the sick and the elderly, lonely retirees; participating in the events dedicated to the Day of Older Persons, the Day of Persons with Special Needs, Children’s Day.

The process of *humanizing the relations in the teacher-pupil and pupil-pupil systems* covered the following areas: humanizing relations between boarding school teachers, which lay in ensuring management humanization for school administration’s part; shaping a friendly public opinion; establishing tolerant

relations between teachers; creating a favourable psychological climate in such schools; humanizing the educational process, which implied facilitating learning individualization and differentiation; ensuring the cooperation between teachers and pupils in organizing life activity of the latter; involving adolescents from rehabilitation centres in humane activity; humanizing relations between adolescents from rehabilitation centres, which included creating an atmosphere of humanity and mutual understanding in boarding schools, motivating pupils to focus on other people, understand their feelings, express compassion for people, developing their ability to put people's interests above their own and resist their negative qualities.

It became possible *to enhance the level of rehabilitation centres teachers' readiness to develop a values-based attitude towards people in adolescents* due to purposeful work during the seminar on the topic "Developing a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres". Its objectives are as follows: to expand the understanding of rehabilitation centres teachers about the concept of "a values-based attitude towards people"; to consider the features of developing a values-based attitude towards people in adolescents from rehabilitation centres; to acquaint rehabilitation centres teachers with the ways of identifying levels of a values-based attitude towards people in adolescents from rehabilitation centres; to deepen the knowledge of rehabilitation centres teachers about the forms and methods of developing a values-based attitude towards people in such adolescents; to acquaint rehabilitation centres teachers with pedagogical conditions for developing a values-based attitude towards people in adolescents from rehabilitation centres; to promote the subject-subject interaction between teachers and pupils. The following types of lessons were implemented during the seminar: lectures: "The Essence and Structure of "a Values-Based Attitude towards People", "The Forms and Methods of Developing a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres"; interactive lessons: "The Peculiarities of Developing a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres", "Methods for Identifying Levels of a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres", "Relations in the Teacher-Pupil System". Also, the level of rehabilitation centres teachers' readiness to develop a value-based attitude towards people in adolescents has been enhanced during the seminar on the topic "Developing a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres" (lectures, interactive lessons).

The following diagnostic methodologies and methods were employed to identify the levels of a values-based attitude in adolescents from

rehabilitation centres by measuring individual indicators of the justified criteria: surveys, conversations, interviews; writing a mini-essay on the topic “Another Person in My Life”; the questionnaire on values-based orientations; the verbal associations method; discussions, tests (Boiko, 2016); self-tests (assessing one’s behaviour in a conflict situation; the “eye to eye” adapted methodology (Tretiak, 2014); the story-role game “One Family”; pedagogical observations; an analysis of life and specially modelled situations.

In this research, the criteria for the levels of a values-based attitude towards other people in adolescents from rehabilitation centres are as follows: cognitive, emotional and values-based, behavioural. They are characterized by high validity for a pedagogical experiment, taking into account neurophysiological patterns of the psyche of an adolescent with certain disorders (see Literature Review).

The indicators of the cognitive criterion are knowledge and ideas of pupils about a values-based attitude towards people; respect for dignity, equality, friendliness, reasonableness, self-sufficiency; awareness of the need to adhere to the principles of humanistic ethics and morality in life; awareness of responsibility for the possible consequences of one’s actions. The emotional and values-based criterion is characterized by such indicators as a positive attitude towards other people; willingness to interiorize basic moral values; moral and self-evaluation skills; readiness to act accordingly; manifestations of humanism concerning others. The indicators of the behavioural criterion include willingness to use moral knowledge and values in one’s behaviour; readiness for constructive dialogue; ability to mobilize humanistic aspirations and experience to solve life problems under different circumstances; ability to counteract evil and violence; ability to control and regulate one’s behaviour; ability to act morally on one’s initiative, rather than under pressure or demand from others.

Experimental data have been collected as follows: these criteria and indicators have made it possible to determine and describe the following development levels of a values-based attitude towards people in adolescents from rehabilitation centres: high, average, low. It was done at the beginning and the end of the formative-diagnostic experiment (see Results).

Results

The process of working with rehabilitation centres teachers has helped to increase emotional and positive motivation to organize the process of developing a values-based attitude towards people in adolescents from rehabilitation centres; to deepen the knowledge about the essence of a

values-based attitude towards people and the peculiarities of developing it in such adolescents; to enhance empathy skills; to master the forms and methods of developing a values-based attitude towards people in adolescents from rehabilitation centres. The results of the above-mentioned seminar indicate that the vast majority of teachers are at a high level of readiness to develop a values-based towards people in adolescents from rehabilitation centres (75.0%). Still, the main result is the dynamics in the levels of adolescents' values.

The effectiveness of the pedagogical conditions for developing a values-based attitude in adolescents from rehabilitation centres has been verified in the experimental group (EG), which involved 123 adolescents and 20 teachers from rehabilitation centres.

The obtained results prove that adolescents with *a high level* of a values-based attitude towards people have profound knowledge about a person as a value and understand such moral values as respect for dignity, equality, friendliness, reasonableness, self-sufficiency. They are also aware of the need to adhere to the principles of humanistic ethics and morality in their life, responsibility for the possible consequences of their actions, as well as the importance of a values-based attitude towards other people. They intend to interiorize basic moral values, have moral and self-evaluation skills and are ready to be humane towards others. Besides, they are ready for constructive dialogue with others. Finally, they can mobilize humanistic aspirations and experience to solve life problems under different circumstances, counteract evil and violence and control and regulate their behaviour.

An average level of a values-based attitude towards people is manifested in non-systematic knowledge about this particular quality; respect for dignity, equality, friendliness, reasonableness, self-sufficiency. They are not aware enough of the need to adhere to the principles of humanistic ethics and morality in their life and be responsible for the possible consequences of their actions. Also, they demonstrate certain selectivity in a values-based attitude towards people and situational willingness to interiorize basic moral values. The level of their moral and self-evaluation skills is insufficient. They are rather selective about whom they manifest humanism to, always show good manners in the presence of teachers and adults. At the same time, they may disregard these rules while remaining unattended. They are not always capable of constructive dialogue and are not always ready to resolve conflicts constructively, control and regulate their behaviour.

Adolescents with *a low level* of a values-based attitude towards people tend to have distorted or perverted notions of a person as a value. They fail

to realize the responsibility for the possible consequences of their actions and show a negative attitude towards other people. They are unwilling to internalize basic moral values and lack moral evaluation and self-evaluation skills. Also, they demonstrate rather selfish motives and attempts to dominate. They depend on the opinion of their peers, trying to earn their support or put rough pressure on others, thus using them as a tool to achieve their goal. Finally, they often provoke conflict situations, trying to assert themselves by force. They are unable to control their behaviour.

The results of the ascertaining stage show that a significant number of adolescents are at a low level of a values-based attitude towards people – 45.0%, whereas 37.4% and 17.6% of them are at average and high levels, respectively.

As for gender characteristics of such quality, girls tend to show it through non-conflictiveness and attention to people. At the same time, boys focus on the activity-related aspect of manifesting a values-based attitude towards people and can mobilize humanistic aspirations and experience to solve life problems under different circumstances. It must be noted that there are no differences between the representatives of both sexes concerning the level of a values-based attitude towards people in adolescents from rehabilitation centres.

The following activities were organized and implemented to identify the causes behind the current level of a values-based attitude towards people in adolescents from rehabilitation centres: questionnaires for teachers, individual interviews, rankings, tests (Boiko's test) (Boiko, 2016), purposeful pedagogical observations.

The obtained results indicate that most rehabilitation centres teachers have significant difficulties in developing a values-based attitude towards people in adolescents, in particular in choosing effective forms and methods for this purpose.

Both analysis and generalization of the ascertaining stage results prove the need to theoretically justify and experimentally verify pedagogical conditions for developing a values-based attitude towards people in adolescents from rehabilitation centres.

The effectiveness of the implemented pedagogical conditions is confirmed by positive changes in the distribution of adolescents from rehabilitation centres based on the development levels of a values-based attitude towards people (see Table 1).

The obtained results show a significant increase in the number of adolescents with high and average levels of a values-based attitude towards people in EG, compared to CG. The dynamics in the levels of a value-based

attitude towards people in adolescents from rehabilitation centres is as follows: a high level: +11.39%; an average level: +21.95%; a low level: -33.34%.

Table 1. *The dynamics behind the levels of a values-based attitude towards people in adolescents from rehabilitation centres (%)*

Levels	EG (123 adolescents)				Dynamics	CG (119 adolescents)				Dynamics
	At the beginning of the experiment		At the end of the experiment			At the beginning of the experiment		At the end of the experiment		
	<i>persons</i>	%	<i>persons</i>	%		<i>persons</i>	%	<i>persons</i>	%	
						%				
High	21	17.07	35	28.46	+11.39	21	17.65	24	20.17	+2.52
Average	45	36.59	72	58.54	+21.95	46	38.66	47	39.49	+0.83
Low	57	46.34	16	13.00	-33.34	52	43.69	48	40.34	-3.35

In EG, one can observe an increase in the number of adolescents who demonstrate deep knowledge about a person as a value, understand such moral values as respect for dignity, equality, friendliness, reasonableness, self-sufficiency, are aware of the need to adhere to the principles of humanistic ethics in life and responsibility for their actions and are ready for constructive dialogue.

In CG, similar positive changes were not observed. The dynamics of a high level of a values-based attitude towards people in adolescents from rehabilitation centres was equal to + 2.52%. The dynamics of average and low levels is as follows: +0.83% and -3.35%.

Fisher's angular transformation (φ) was used to clarify the differences between the indicators of EG and CG regarding the levels of a values-based attitude towards people in adolescents from rehabilitation centres. The Pearson correlation coefficient was applied to specify the formative stage results, in particular the indicators of levels of a values-based attitude towards people in adolescents from boarding schools to determine possible systemic relations between them. The obtained results prove the positive dynamics of the formative stage of experimental work and the achievement of the research aim.

Discussion

An analysis of scientific literature on the problem under study shows that it is rather complex and multifaceted, accumulating scientific knowledge of philosophy, psychology, pedagogy and neurosciences.

The obtained results partially confirm the validity of Ukrainian research on the problem of developing a values-based attitude, which is considered as a special value that is a system of attitudes, motives, needs, views and beliefs. In turn, they all follow the principles of a values-based attitude towards other people, manifested in an activity-related attitude towards people and based on the recognition of a person as the highest value (Biletska, 2004); an integrated moral quality of high school pupils, which has the following essential features: the awareness of knowledge about the value of people as the highest social value; stable focus on empathic interaction and dialogical attitude towards people; capacity for cultural and psychological openness, which makes it possible to adequately perceive and understand the “inner world” of people; communicative “flexibility”, which allows finding specific means of communication for each person, taking into account ethical norms and the specifics of his or her “inner world”; ability to be guided by humane principles in relations with other people when making moral choices (Kyrmach, 2014); representation, awareness and recognition of a person as the highest value, which motivates primary school pupils towards appropriate moral actions and is manifested in respect for human dignity, justice, tolerance and responsibility (Tretiak, 2014).

Still, the consideration of both neurophysiological and neuropedagogical factors has allowed one to draw parallels with current neuro-oriented research. It has also proved the existing dissonance between the traditional transmission of values, meanings and knowledge and the performativity “as the generation of such values in the very act of interaction and joint activities” (Frostenson & Englund 2020).

Modelling and implementation of new educational conditions have confirmed an assumption about the holistic nature of the development of adolescent’s values, character, age-specific sensitive intentions and social context. Concerning rehabilitation centres, the latter is somewhat conditional. At the same time, the full-fledged motivational-axiological and emotionally mature development is possible only in wider non-educational contexts, namely, spontaneous situations of making a morally significant decision that are not regulated by the educational process (Waddock, 2016).

The main methodical recommendation is an assumption about the pervasiveness of subjective, character-building and socially oriented development of values which should not be viewed as a separate component of the educational and rehabilitation process, as envisaged by the frameworks of the leading European institutions.

The article highlights the importance of considering syncretic (pedagogical and neurophysiological) factors in developing a values-based attitude towards people in adolescents from rehabilitation centres, which should use more effective educational and rehabilitation approaches (Colbert et al., 2018). The first group of factors includes the following: sensitivity of adolescence to developing a values-based attitude towards people (selectivity in evaluating people's qualities; intensive development of intellectual, emotional and volitional sphere; the need for intimate and personal communication with significant peers; the general focus in developing moral ideas and social attitudes; developing knowledge and ideas about other people and style of communication with them); the potential of extracurricular activities of rehabilitation centres in the context of the problem under study. The second group of factors that significantly complicates the process of developing a values-based attitude towards people in adolescents from rehabilitation centres: social orphanhood; the peculiarities of organizational and pedagogical functioning of comprehensive rehabilitation centres (the organization of pupils' life activity; the forced adaptation to a large number of peers; decreased intimacy and trust in communication; excessive care and step-by-step control; the prevalence of authoritarian pedagogy); the specifics of groups of pupils (deprivation syndrome; difficulties in communicating with others; decreased empathy; rapid mood swings in their relations with adults; rivalry with peers; demonstration of contempt, rudeness and aggression towards the younger and weaker; inability and unwillingness to work in a team and do something for others).

The practical value of the obtained results lies in developing and implementing the effective content-related and methodological support for the process of developing a values-based attitude towards people in adolescents from rehabilitation centres in the practice of such centres. It involves new educational conditions, a complex methodology for identifying the levels of a values-based attitude towards people in adolescents from rehabilitation centres; the content, forms and methods of developing a values-based attitude towards people in adolescents from rehabilitation centres in the context of the modelled conditions (ethical conversations, educational hours, philosophical classes, training sessions on prosocial

behaviour “My moral choice”; the programme of the seminar for rehabilitation centres teachers on the topic “Developing a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres”) and methodical recommendations of the same name.

Conclusions

The results of theoretical and experimental research proving the achievement of the aim and solving the set objectives have made it possible to formulate the following *conclusions*.

The research specifies the following peculiarities of developing a value-based attitude towards people in adolescents from rehabilitation centres: the specifics of such a group of pupils (deprivation syndrome; difficulties in communicating with others; decreased empathy; rapid mood swings in relations with adults; rivalry with peers; demonstration of contempt, rudeness and aggression towards the younger and weaker; inability and unwillingness to work in a team and do something for others); the peculiarities of organizational and pedagogical functioning of rehabilitation centres (the organization of pupils’ life activity; the forced adaptation to a large number of peers; decreased intimacy and trust in communication; excessive care and step-by-step control; the prevalence of authoritarian pedagogy).

The humanization of relations in the “teacher-pupil” and “pupil-pupil” system corrected by the new educational conditions and their methodical implementation has covered the following areas: humanizing relations between boarding school teachers; humanizing the educational process; humanizing relations between adolescents from rehabilitation centres. It has led to insignificant but stable dynamics in the enhancement of a value-based attitude towards people in EG adolescents (a high level: +11.39%; an average level: +21.95%; a low level: -33.34%) proves pedagogical expediency and effectiveness of the theoretically justified and experimentally verified pedagogical conditions for developing a values-based attitude towards people in adolescents.

Given the relevance of the research topic, it is *recommended* to introduce the content, forms and methods for developing a values-based attitude towards people in adolescents in extracurricular activities of rehabilitation centres; to incorporate the organization of the seminar on the topic “Developing a Values-Based Attitude towards People in Adolescents from Rehabilitation Centres” intended for rehabilitation centres teachers in the system of teacher graduate education, implement educational measures

focused on the development of a values-based attitude towards people in educational work and involve adolescents from rehabilitation centres in various joint activities on the development of a values-based attitude towards people.

Research limitations. The results of the experiment are limited by time, sampling, the author's vision of new educational conditions. Therefore, the problem in question remains open and requires more extensive discussion. However, the authors of the article believe that the main provisions and conclusions of this research can be used in the practice of rehabilitation centres teachers, in the teaching of such courses as "Theory and Methods of Education", "Methods of Educational Work" and the specialized course "Social and Educational Work with Different Social Groups" in higher education institutions, in the preparation of textbooks on theory and methods of education, as well as in the system of graduate teacher education.

References

- Amonashvili, Sh. A. (2004). *Lichnostno-gumannaia osnova pedagogicheskogo protsessa* [The personally-humane basis of the pedagogical process]. Universitetskoe. <https://www.livelib.ru/book/1001383526-lichnostnogumannaya-osnova-pedagogicheskogo-protsessa-shalva-amonashvili>
- Astashova, N. A. (2000). *Uchitel: problema vybora i formirovanie tsennosti* [The teacher: problems of choosing and developing personality]. MODEK. <https://www.ozon.ru/context/detail/id/135916165/>
- Bakhmat, N., Maksymchuk, B., Voloshyna, O., Kuzmenko, V., Matviichuk, T., Kovalchuk, A., Martynets, L., Uchytel, I., Solovyov, V., Manzhos, E., Sheian, M., Alieksieiev, O., Slyusarenko, N., Zhorova, I., & Maksymchuk, I. (2019). Designing cloud-oriented university environment in teacher training of future physical education teachers. *Journal of Physical Education and Sport*, 19(4), 1323–1332. <https://doi.org/10.7752/jpes.2019.s4192>
- Ball, S. J. (2016). Subjectivity as a site of struggle: Refusing neoliberalism? *British Journal of Sociology of Education*, 37(8), 1129–1146. <https://www.tandfonline.com/doi/abs/10.1080/01425692.2015.1044072?journalCode=cbse20>
- Behas, L., Maksymchuk, B., Babii, I., Tsymbal-Slatvinska, S., Golub, N., Golub, V., Chepka, O., Lemeshchuk, M., Dychok, M., Nikitenko, A., Sarancha, I., & Maksymchuk, I. (2019). The influence of tempo rhythmic organization of speech during gaming and theatrical activities on correction of stammering in children. *Journal of Physical Education and Sport*, 19(4), 1333–1340. <https://doi.org/10.7752/jpes.2019.s4193>

- Berbets, T., Berbets, V., Babii, I., Chyrva, O., Malykhin, A., Sushentseva, L., Medynskii, S., Riaboshapka, O., Matviichuk, T., Solovyov, V., Maksymchuk, I., & Maksymchuk, B. (2021). Developing Independent Creativity in Pupils: Neuroscientific Discourse and Ukraine's Experience. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(4), 314-328. <https://doi.org/10.18662/brain/12.4/252>
- Bezliudnyi, O., Kravchenko, O., Maksymchuk, B., Mishchenko, M., & Maksymchuk, I. (2019). Psycho-correction of burnout syndrome in sports educators. *Journal of Physical Education and Sport*, 19(3), 1585–1590. <http://efsupit.ro/images/stories/septembrie2019/Art%20230.pdf>
- Biletska, I. O. (2004). *Vykhovannia tsinnisnogo stavlennia do inshoi liudyny v molodshykh pidlitkiv u protsesi rozviazuvannia moralnykh zadach* [Cultivating a values-based attitude towards another person in younger adolescents in the process of solving moral problems] [Unpublished doctoral dissertation]. Pavlo Tychyna Uman State Pedagogical University. http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?Z21ID=&I21DBN=EC&P21DBN=EC&S21STN=1&S21REF=10&S21FMT=fullwebr&C21COM=S&S21CNR=20&S21P01=0&S21P02=0&S21P03=A=&S21COLORTERMS=1&S21STR=%D0%91%D1%96%D0%BB%D0%B5%D1%86%D1%8C%D0%BA%D0%B0%20%D0%86
- Bilousova, V. O. (1997). *Teoriia i metodyka humanizatsii vidnosyn starshoklasnykh u pozaurochnii diialnosti zabalnoosvitnoi shkoly* [Theory and methods of humanizing relations between high school pupils during extracurricular activities in secondary school]. IZMN. http://libcc.univ.kiev.ua/ukr/elcat/new/detail.php3?doc_id=26938
- Boiko, V. V. (2016). *Metodyka diahnostyky rivnia empatiinykh zdibnostei* [Methods for identifying the level of empathic skills]. *StudFiles*. <https://studfiles.net/preview/5287907/>.
- Buzhyna, I. V. (2002). *Teoriia i praktyka pidhotovky maibutnikh uchyteliv do formuvannia humanistychnykh vidnosyn molodshykh shkoliariv* [Theory and practice of training future teachers to establish humanistic relations between younger schoolchildren] [Unpublished doctoral dissertation]. Southern Scientific Centre of the National Academy of Pedagogical Sciences of Ukraine. <http://www.disslib.org/teoria-i-praktyka-pidhotovky-majbutnikh-uchyteliv-do-formuvannja-humanistychnykh.html>
- Camerer, C., & Yoon, C. (2015). Introduction to the journal of marketing research special issue on neuroscience and marketing. *Journal of Marketing Research*, 52, 423–426. <https://doi.org/10.1509/0022-2437-52.4.423>
- Colbert, B. A., Nicholson, J., & Kurucz, E. C. (2018). Humanistic leadership for sustainable transformation. In S. L. Steffen (Ed.), *Evolving Leadership for Collective Wellbeing* (pp. 33–47). Emerald Publishing.

- <https://www.amazon.com/Evolving-Leadership-Collective-Wellbeing-Implementing/dp/1787438791>
- Demchenko, I., Maksymchuk, B., Bilan, V., Maksymchuk, I., & Kalynovska, I. (2021). Training Future Physical Education Teachers for Professional Activities under the Conditions of Inclusive Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 191-213.
<https://doi.org/10.18662/brain/12.3/227>
- Effendi Rustan, Y., Bafadal, I., Sudana Degeng, I. N., & Arifin, I. (2020). *The construction model of inculcating principal humanistic values in forming a characteristic school environment. Preprints*.
<https://www.preprints.org/manuscript/202011.0068/v1>
- Frostenson, M., & Englund, H. (2020). Teachers, performative techniques and professional values: How performativity becomes humanistic through interplay mechanisms. *Cambridge Journal of Education*, 50(6), 695–710.
<https://doi.org/10.1080/0305764X.2020.1761943>
- Gerasymova, I., Maksymchuk, B., Bilozero, M., Chernetska, Yu., Matviichuk, T., Solovyov, V., & Maksymchuk, I. (2019). Forming professional mobility in future agricultural specialists: The sociohistorical context. *Revista Romaneasca pentru Educatie Multidimensionala*, 11(4), 345–361.
<https://doi.org/10.18662/rrem/195>
- Ha, N., Nhan, N., & Quang, B. (2020). Developing educational institution culture for the education of ethical and humanistic values, and of lifelong-learning spirits in Binh Duong province. *Science & Technology Development Journal – Social Sciences & Humanities*, 4(3), 582–593.
<https://doi.org/10.32508/stdjssh.v4i3.576>
- Halaidiuk, M., Maksymchuk, B., Khurtenko, O., Zuma, I., Korytko, Z., Andrieieva, R., Strykalenko, Y., Zhosan, I., Syvokhop, Y., Shkola, O., Fomenko, O., & Maksymchuk, I. (2018). Teaching approaches in extracurricular physical activities for 12-14-year-old pupils under environmentally unfavourable conditions. *Journal of Physical Education and Sport*, 18(4), 2284–2291.
<https://doi.org/10.7752/jpes.2018.04344>
- Huidu, A. (2019). The psychopathology of serial killers. *Eastern-European Journal of Medical Humanities and Bioethics*, 3(1), 38-54.
<https://doi.org/10.18662/eejmhb.19>
- Jung, K. G. (1994). *Problemy dushi nashego vremeni* [Soul problems of our time]. Progress. http://loveread.ec/view_global.php?id=60315
- Kaletnik, G. M., Zabolotnyi, G. M., & Kozlovskiy, S. V. (2011). Innovatsiyni modeli upravlinnya ctratehichnym ekonomichnym potentsialom cuchasnykh ekonomichnykh system [Innovative models of management in strategic economic potential modern economic systems]. *Aktualni problemy*

- ekonomiky* [Actual Problems of Economics], 4(118), 3–11.
<http://socrates.vsau.org/repository/card.php?lang=uk&id=24702>
- Kapska, A. Y. (2009). *Sotsialna pedabobika* [Social pedagogy]. Tsentr navchalnoyi literatury. <https://www.twirpx.com/file/689659/>
- Karasievych, S., Maksymchuk, B., Kuzmenko, V., Slyusarenko, N., Romanyshyna, O., Syvokhop, E., Kolomiitseva, O., Romanishyna, L., Marionda, I., Vykhruhshch, V., Oliinyk, M., Kovalchuk, A., Halaidiuk, M., & Maksymchuk, I. (2021). Training Future Physical Education Teachers for Physical and Sports Activities: Neuropedagogical Approach. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(4), 543-564.
<https://doi.org/10.18662/brain/12.4/264>
- Kosholap, A., Maksymchuk, B., Branitska, T., Martynets, L., Boichenko, A., Stoliarenko, O., Matsuk, L., Surovov, O., Stoliarenko, O., & Maksymchuk, I. (2021). Neuropsychological Bases of Self-Improvement of Own Physical Health of Future Teachers in the Course of University Education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 171-190.
<https://doi.org/10.18662/brain/12.3/226>
- Kyrmach, H. A. (2014). *Vykhovannia u starsboklasnykiv tsinnosti inshoi liudyny v pozaurochnii diialnosti* [Cultivating the value of another person in high school pupils during extracurricular activities] [Unpublished doctoral dissertation]. The Institute of Problems in Morale Building of the Academy of Pedagogical Sciences of Ukraine. http://www.irbis-nbu.gov.ua/cgi-bin/irbis_nbu/cgiirbis_64.exe?C21COM=S&I21DBN=REF&P21DBN=&S21FMT=JwU_B&S21ALL=%28%3C.%3EU%3D%3D%0%A7421.352.16%3C.%3E%29&Z21ID=&S21SRW=TIPVID&S21SRD=&S21STN=1&S21REF=10&S21CNR=20
- Lourens, H., Watermeyer, B., & Swartz, L. (2019) Ties that bind, and double-bind: Visual impairment, help, and the shaping of relationships. *Disability and Rehabilitation*, 41(16), 1890–1897.
<https://doi.org/10.1080/09638288.2018.1450454>
- Maksymchuk, I., Maksymchuk, B., Frytsiuk, V., Matviichuk, T., Demchenko, I., Babii, I., Tsymbal-Slatvinska, S., Nikitenko, A., Bilan, V., Sitovskiy, A., & Savchuk, I. (2018). Developing pedagogical mastery of future physical education teachers in higher education institutions. *Journal of Physical Education and Sport*, 18(2), 810–815.
<https://doi.org/10.7752/jpes.2018.02119>
- Maslow, A. (2009). *Motivatsiia i lichnost* [Motivation and personality]. Piter. http://www.bim-bad.ru/docs/maslow_motivation_and_personality.pdf
- Melnyk, N., Bidyuk, N., Kalenskiy, A., Maksymchuk, B., Bakhmat, N., Matviienko, O., Matviichuk, T., Solovyov, V., Golub, N., & Maksymchuk, I. (2019). Modely y orhanyzatsyone osobyne profesyonalne obuke vasp'ytacha u

- pojedynym zemłama Evropske Unyje y u Ukrajinny [Models and organizational characteristics of preschool teachers' professional training in some EU countries and Ukraine]. *Zbornik Instituta za pedagogska istraživanja*, 51(1), 46–93. <https://doi.org/10.2298/ZIPI1901046M>
- Nerubasska, A., & Maksymchuk, B. (2020). The demarkation of creativity, talent and genius in humans: A systemic aspect. *Postmodern Openings*, 11(2), 240–255. <https://doi.org/10.18662/po/11.2/172>
- Prots, R., Yakovliv, V., Medynskiy, S., Kharchenko, R., Hryb, T., Klymenchenko, T., Ihnatenko, S., Buzhyna, I., & Maksymchuk, B. (2021). Psychophysical Training of Young People for Homeland Defence Using means of Physical Culture and Sports. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 149-171. <https://doi.org/10.18662/brain/12.3/225>
- Rogers, C. (1999). Chto znachit “stanovitsia chelovekom” [On becoming a person]. *Psikhologiya lichnosti* [The Psychology of Personality], 1, 363–378. <https://monocler.ru/karl-rodzhers-chto-znachit-stanovitsya-chelovekom/>
- Sarancha, I., Maksymchuk, B., Gordiichuk, G., Berbets, T., Berbets, V., Chepurna, L., Golub, V., Chernichenko, L., Behas, L., Roienko, S., Bezliudna, N., Rassskazova, O., & Maksymchuk, I. (2021). Neuroscientific Principles in Labour Adaptation of People with Musculoskeletal Disorders. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(4), 206-223. <https://doi.org/10.18662/brain/12.4/245>
- Sartre, J.-P. (1992). *Stena. Izbrannyye proizvedeniia* [The wall. Selected works]. Politizdat. <https://www.livelib.ru/book/1000094559-stena-izbrannyye-proizvedeniya-sbornik-zhan-pol-sartre>
- Shchurkova, N. E. (2005). *Prykladnaya pedagogika vospitaniya* [Applied pedagogy of education]. Piter. <https://obuchalka.org/2016040288895/prikladnaya-pedagogika-vospitaniya-schurkova-n-e-2005.html>
- Sheremet, M., Leniv, Z., Loboda, V., & Maksymchuk, B. (2019). Stan sformovanosti smart-informatsynoho kryteriyu hotovnosti fakhivtsiv do realizatsiyi inklyuziyi v osviti [The development level of smart information criterion for specialists' readiness for inclusion implementation in education]. *Informatsiyini tekhnolohiyi i zasoby navchannya* [Information Technologies and Learning Tools], 72, 273–285. <https://journal.iitta.gov.ua/index.php/itlt/article/view/2561>
- Sitovskiy, A., Maksymchuk, B., Kuzmenko, V., Nosko, Y., Korytko, Z., Bahinska, O., Marchenko, O., Nikolaienko, V., Matviichuk, T., Solovyov, V., Khurtenko, O., Slyusarenko, N., Zhorova, I., & Maksymchuk, I. (2019). Differentiated approach to physical education of adolescents with different speed of biological development. *Journal of Physical Education and Sport*, 19(3), 1532–1543. <http://repository.ldufk.edu.ua/handle/34606048/23502>

- Tretiak, O. P. (2014). *Vykhovannia tsinnisnobo stavlennia do liudyny u molodshykh shkoliariv u navchalno-vykhovnomu protsesi* [Cultivating a values-based attitude towards a person in younger schoolchildren in the educational process] [Unpublished doctoral dissertation]. The Institute of Problems in Morale Building of the Academy of Pedagogical Sciences of Ukraine. <https://mydisser.com/ua/catalog/view/238/244/26531.html>
- Waddock, S. (2016). Developing Humanistic Leadership Education. *Humanist Management Journal*, 1, 57–73. <https://doi.org/10.1007/s41463-016-0003-5>
- Zahorodniuk, T. M. (2011). *Vykhovannia pochuttia korysnosti dlia inshoho yak moralnoi tsinnosti pidlitka* [Cultivating a sense of usefulness for another person as a moral value of adolescents] [Unpublished doctoral dissertation]. The Institute of Problems in Morale Building of the Academy of Pedagogical Sciences of Ukraine. <https://nenc.gov.ua/doc/autoref/zagorodnuk.pdf>
- Zhurba, K. O. (2013). *Orhanizatsiia i provedennia treninhu z vykhovannia kultury hidnosti molodshykh pidlitkiv* [Organizing and conducting training on cultivating the culture of dignity in younger adolescents]. *Materialy zvitnoi naukovo-praktychnoi konferentsii Instytutu problem vykhovannya NAPN Ukrayiny za 2013 "Suchasnyy vykhovnyy protses: sutnist ta innovatsiynyy potentsial"* [Proceedings of the Report Scientific-Practical Conference on "The Modern Educational Process: the Essence and the Innovative Potential"]. The Institute of Problems in Morale Building of the Academy of Pedagogical Sciences of Ukraine. <http://lib.iitta.gov.ua/6672/1/%D0%96%D1%83%D1%80%D0%B1%D0%B0.pdf>
- Ziazium, I. A. (2000). *Pedahohika dobra: idealy i realii* [The pedagogy of kindness: ideals and realities]. The International Academy of Personnel Management. <http://www.samprodav.com/books/sell/42306-piedaghoghika-dobra-ideali-i-riekaliyi>