

## ORIGINAL ARTICLE

# THE QUALITY OF LIFE FOR STUDENTS IN EDUCATIONAL INSTITUTIONS: CURRENT SITUATIONS AND BASIC PRINCIPLES OF PSYCHOHYGIENIC IMPROVEMENT

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## ABSTRACT

**The aim:** To develop the key principles of psychohygienic improvement of the processes of personality formation and enhancement of the quality of life of pupils and students of modern educational institutions of various types.

**Materials and methods:** While working out the basic principles of psychohygienic correction of the processes of personality development and improvement of the quality of life of pupils and students of modern educational institutions of various types, we have conducted surveys of the adolescent boys and girls studying at five modern educational institutions in Ivano-Frankivsk city, namely Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk Finance Commercial Cooperative College named after Stepan Hranat, Ivano-Frankivsk State Music School named after Denys Sichynskyi, Ivano-Frankivsk Vocational Lyceum of Road Transport and Construction No. 15, and Ivano-Frankivsk Boarding Lyceum for Gifted Young People from Rural Areas. A total of 420 pupils and students studying at different types of educational institutions took part in the survey. They were in both natural and preformed conditions due to application of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students.

**Results:** While conducting the research, we have noted that the practical application of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students occurs at mental, personal and psychophysiological levels of the adolescent boys and girls, anticipating correction of emotional, motivational and behaviour-based key characteristics of personality, psychophysiological adaptation and quality of life, thus being a platform for development of creative potential, self-analysis, self-expression and self-control skills, as well as discovery of positive landmarks and meaning of life of the boys and girls.

**Conclusions:** The obtained data demonstrate that implementation of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students, which includes: study of the level of development of psychophysiological functions, personality characteristics and indicators of the quality of life in each of the participants as well as taking into account the leading areas of their development within certain frameworks of educational process (the milestone of psychodiagnostics and assessment of the level of development of psychophysiological functions and personality traits); performing a set of exercises to relieve muscle spasms, isometric and respiratory gymnastics, as well as exercises of asymmetric gymnastics (the milestone of physical impact); application of psychophysiological component (the milestone of psychophysiological influence); introduction of a psychohygienic component (the milestone of psychohygienic correction) serves the basis for creating the foundation for activating positive changes in the peculiarities of psychophysiological and mental adaptation and characteristics of the quality of life of modern youth at educational institutions of various types.

**KEY WORDS:** quality of life, pupils, students, modern educational institutions, psychohygienic correction, personality characteristics

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## INTRODUCTION

According to the WHO definition, “quality of life” is an individual’s perception of their personality and position in life in the context of the culture and value systems, as well as attitude to the meaning of life, expectations and reality, difficulties and problems. Quality of life is a subjective feeling of happiness (emotional component) and personal well-being as well as of life satisfaction (cognition-and-perception component) [1]. These days, there exist numerous researches investigating characteristic

features of the quality of life of our country’s either adult population or children and youth with acute or chronic diseases of various origin. Yet, only a small part of scientific works is aimed at studying the quality of life of healthy or apparently healthy pupils and students [2-5]. Moreover, our scientists’ investigations often lack clear research algorithms and protocols, that being a significant obstacle to an objective assessment of the impact of a certain factor on the quality of life of pupils and students, who comprise a special social group that shapes the future of our state.

Young people's lifestyle has a significant impact on learning activity, academic performance and working capacity and is closely connected with their physical and mental health [6-8]. Thus, low physical activity causes a decrease in the body's resistance to the development of various diseases and deterioration of physical and mental performance due to lack of training loads on all the systems and functions of the body [9]. However, at the present point of time, the study of the effects of physical activity on the quality of life of pupils and students of modern educational institutions of various types is insufficient [10].

In Ukraine, at present, there are no specific questionnaires that can be applied to study the quality of life, so in most cases, researchers use the Ukrainian-language questionnaire Medical Outcomes Study Short Form 36 (MOS SF-36) [11]. This questionnaire performs effectively and shows good results in the study of the level of general and social well-being, health status, success level, etc. Its significant advantage is the possibility of application in the study of indicators of the quality of life of healthy population, as well as young people over 14 years old, whereas the vast majority of similar questionnaires are designed to study the quality of life of individuals with specific acute or chronic diseases [2, 6]. Nowadays, no monitoring studies with the use of SF-36 questionnaire are conducted in Ukraine, and the level of mental and social well-being has been usually assessed in people over 25 years old. Of particular concern is the fact that though the quality of life of pupils and students of modern educational institutions of various types is relatively low, any actions of psychohygienic correction of the processes of personality development and improvement of the quality of life are virtually absent.

## THE AIM

The aim of the study is to develop the key principles of psychohygienic correction of the processes of personality development and enhancement of the quality of life of pupils and students of modern educational institutions of various types.

## MATERIALS AND METHODS

While working out the basic principles of psychohygienic correction of the processes of personality development and improvement of the quality of life of pupils and students of modern educational institutions of various types, we have conducted surveys of the adolescent boys and girls studying at five modern educational institutions in Ivano-Frankivsk city, namely Vasyl Stefanyk Precarpathian National University, Ivano-Frankivsk Finance Commercial Cooperative College named after Stepan Hranat, Ivano-Frankivsk State Music School named after Denys Sichynskyi, Ivano-Frankivsk Vocational Lyceum of Road Transport and Construction No. 15, and Ivano-Frankivsk Boarding Lyceum for Gifted Young People from Rural Areas. A total of 420 pupils and students studying at different types of educational institutions took part in the survey.

They were in both natural and preformed conditions due to application of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students.

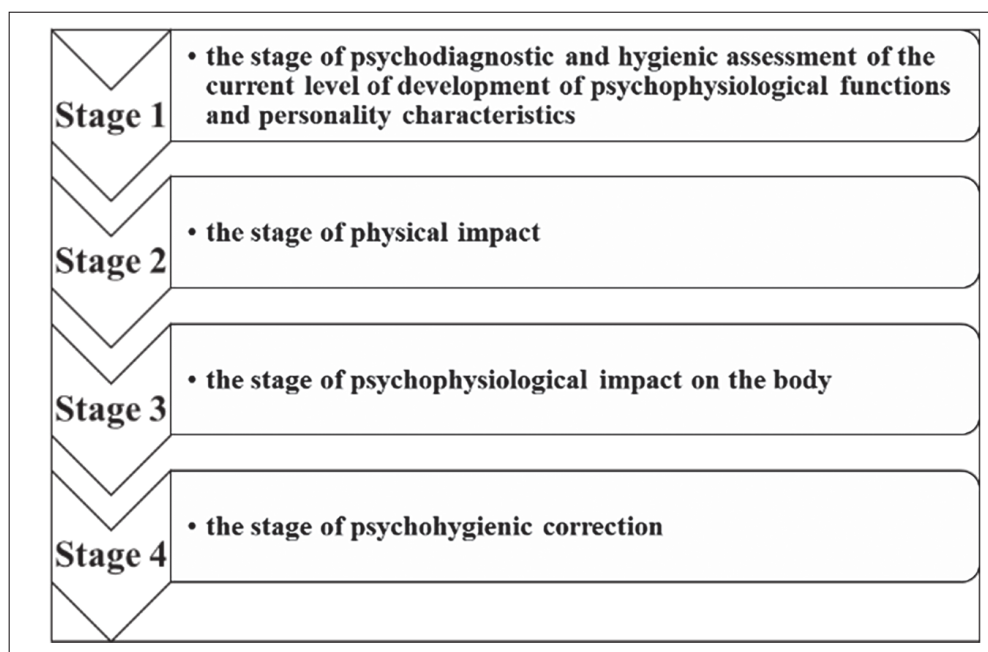
The program included anticipatory assessment of the peculiarities of the course of adaptation processes, taking into account the indicators of the quality of life with application of statistical models and methods of expert assessment. Taking into account different approaches to the organization of the educational process at the institutions under study, we have investigated the relationships between the functional state of the organism, the level of development of psychophysiological functions and personality characteristics, the quality of life and quantitative indicators of academic performance in basic and vocational disciplines; we have also developed, scientifically established and embedded in the educational establishment's practical activities the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students; we have also evaluated the degree of its implementation efficacy, and created approaches for anticipatory assessment of individual features of the processes of psychophysiological and psychological adaptation of pupils and students of modern educational institutions of various types taking into account the indicators of the quality of life based on the introduction of modern methods of multidimensional statistical analysis and anticipation.

The choice of the research objects, their grouping peculiarities and development of accounting classification characteristics took into account the indicators that enabled ensuring the qualitative and quantitative representativeness of the conducted research. To pursue the study and compare the obtained data adequately, it was necessary to take into account such indicators as age and gender, relative unity and absolute comparability of the basic characteristics of educational and extracurricular activities and environmental effects on the leading psycho-pedagogical indicators.

To determine the quality of life of the adolescent boys and girls, we have applied the questionnaire "SF-36 Health Status Survey", which is a non-specific questionnaire to achieve the goal set.

The criteria for the assessment of the quality of life included:

- the level of state of health according to the General Health (GH) grading scale;
- the level of physical functioning of the body (self-care, walking, carrying loads, etc.) according to the Physical Functioning (PF) grading scale;
- the impact of physical characteristics on role functioning (professional, educational and daily activities) according to the Role-Physical (RP) grading scale;
- the impact of emotional state on role functioning and the possibility of occurrence of difficulties in carrying out daily activities according to the Role-Emotional (RE) grading scale;



**Fig. 1.** The structure of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students

- social functioning and social activity according to the Social Functioning (SF) grading scale;
- indicators of pain intensity, which can manifest themselves both in educational institutions and outside them, according to the Bodily Pain (BP) grading scale;
- manifestation of the level of viability indicators and the feeling of strength and energy according to the Vitality (VT) grading scale;
- mental health self-assessment in the presence of signs of depression or anxiety according to the Mental Health (MH) grading scale.

In order to create conditions for the rational organization of educational and extracurricular activities of pupils and students, on the basis of a detailed study of the leading correlates of functional status and adaptive resources of boys and girls, we have developed a program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of young people, the main stages of practical implementation and the basic parts of which are: establishing the level of development of certain psychophysiological functions, personality characteristics and the quality of life individually in each of the adolescent boys and girls as well as anticipating the main directions of their development in certain conditions of educational process (the stage of psychodiagnostic and hygienic assessment of the current level of development of psychophysiological functions and personality characteristics); performing exercises to relieve muscle spasms, trainings of isometric gymnastics, and breathing exercises as well as introduction of classes of asymmetric gymnastics (the stage of physical impact); active practical engagement of the elements of the psychophysiological component of this program (the stage of psychophysiological impact); application of

psychohygienic component of the program (the stage of psychohygienic correction) (Fig. 1).

## RESULTS AND DISCUSSION

In the process of implementation of the developed program, an essential condition was a distinct, systematic performance of at least 2-3 exercises from each of the groups while organizing independent exercising in out-of-lesson time (as a special homework), which were independently adjusted by the boys and girls and were performed daily for 30-45 minutes, as well as a regular, systematic performance of the exercises carefully chosen as part of the mandatory set of exercises of morning hygienic and evening relaxation gymnastics, sports activities and sports games under the supervision of teachers.

Introduction of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students was carried out on the basis of realization of such principles as the principle of rational application of physical and mental loadings and their sustainability at the time of influence; the principle of differentiated implementation; the feedback principle; the principle of systematicity, succession and stage-by-stage approach to the suggested exercises.

Implementation of the conceptual issues of the principle of rational application of physical and mental loadings and their sustainability at the time of the program application contributed to the creation of rational, in terms of hygiene, organization of daily learning and extracurricular activities at various types of modern educational institutions.

The program of psychophysiological effects on the body, psychohygienic correction of personality development

processes and improvement of the quality of life of pupils and students of modern educational institutions of various types includes the following basic stages of practical implementation: assessment of the initial level of development of the basic psychophysiological functions, personality characteristics and the main characteristics of the quality of life in each of the adolescent boys and girls taking into account the leading directions of their development in different conditions of the educational process; actual performance of the trainings to relieve muscle spasms by application of exercises of isometric, asymmetric and breathing gymnastics; application of the psychophysiological and psychohygienic components of the developed program. The main components of the practical implementation of the program are: physical, psychophysiological and psychohygienic.

The physical component included exercises to relieve muscle spasms, isometric exercises, breathing exercises and asymmetric exercises. The psychophysiological component included a set of exercises for visual gymnastics, a series of exercises to improve cerebral circulation and exercises to relieve mental fatigue. The psychohygienic component was implemented through the introduction of psychophysical training exercises, psychotechnical games, various relaxation techniques, as well as exercises to overcome anxiety and increase self-control.

In the process of implementation and testing the effectiveness of the developed program, it has been provided the systematic performance of at least 2-3 exercises of each group in the process of independent training at extracurricular time, which the young people plan and adjust independently and perform for 30-45 minutes daily. These exercises had to be performed systematically, were included in the complex of exercises of morning hygienic and evening relaxation gymnastics, and were used as an element of sports action-oriented games and pastime at least 2-3 times a week.

While conducting the research, we have noted that the practical application of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students occurs at the mental, personality and psychophysiological levels of the body of the adolescent boys and girls, thus providing correction of the basic emotional, motivational and behavioral personality characteristics, psychophysiological adaptation and the quality of life as well as being a platform for the development of creative potential, self-analysis, self-expression and self-control skills, and the discovery of positive landmarks and meaning of life of the youth.

The assessment of the effectiveness of implementation of the developed program has been carried out on the basis of defining the three key indicators of the level of development of personality characteristics: anxiety-neurotic, neuro-psychic and character-motivational components.

The positive impact at the final stage of the program implementation has been noted among both the adolescent boys and girls and statistically significant differences have

been spotted in the comparison groups. First of all, these differences dealt with the indicators of the development of character accentuations in accordance with excitatory ( $p(t)_{cg-ig} < 0.05-0.001$ ), anxiety ( $p(t)_{cg-ig} < 0.05-0.01$ ) and dysthymia ( $p(t)_{cg-ig} < 0.05$ ) types as well as the indicators of the level of subjective control in the field of educational and health-disease relations ( $p(t)_{cg-ig} < 0.05-0.001$ ). The developed program had the greatest impact on such personality characteristics as character accentuations according to excitable type (first place in terms of the level of positive changes), the level of subjective control in the field of health and disease (second place in terms of the level of positive changes), and the level of subjective control in the field of educational relations (third place in terms of the level of positive changes).

While studying the peculiarities of changes in terms of the indicators of the quality of life according to the Social Functioning (SF) grading scale, the obtained Control Group data were characterized by almost unchanged data both among the adolescent boys, ranging from  $51.43 \pm 3.51$  to  $51.30 \pm 3.51$  points ( $p(t) > 0.05$ ), and among the girls, ranging from  $43.36 \pm 2.71$  to  $43.52 \pm 2.54$  points ( $p(t) > 0.05$ ). At the same time, the Intervention Group changes in the level of manifestations of the studied data were marked by an increase in their values from  $50.63 \pm 3.43$  to  $62.22 \pm 3.63$  points ( $p(t) < 0.05$ ) among the boys and from  $44.49 \pm 2.71$  to  $58.46 \pm 2.65$  points ( $p(t) < 0.001$ ) among the girls. At the beginning of the study, no statistically significant differences were found between the representatives of the comparison groups ( $p(t)_{cg-ig} > 0.05$ ); at the end of the surveys, statistically significant differences were registered only among the girls ( $p(t)_{cg-ig} < 0.001$ ).

The values of the Mental Health (MH) grading scale in conventional learning conditions (Control Group) and in Intervention Group were also marked by the presence of quite similar to the mentioned above trends. The indicators of the quality of life according to this grading scale in Control Group slightly increased from  $71.16 \pm 2.98$  to  $71.44 \pm 2.73$  points ( $p(t) < 0.05$ ) among the adolescent boys and slightly decreased from  $61.03 \pm 3.16$  to  $60.28 \pm 3.47$  points ( $p(t) > 0.05$ ) among the girls. However, in Intervention Group, the changes in the level of manifestation of the studied indicators increased from  $70.59 \pm 3.34$  to  $82.31 \pm 3.84$  points ( $p(t) < 0.05$ ) among the boys and from  $60.52 \pm 3.46$  to  $74.33 \pm 3.27$  points ( $p(t) < 0.05$ ) among the girls. At the initial stage of observations, no statistically significant differences among the participants in the comparison groups were observed ( $p(t)_{cg-ig} > 0.05$ ); at the final stage of the surveys, statistically significant differences were observed only among the girls ( $p(t)_{cg-ig} < 0.05$ ).

## CONCLUSIONS

As a result of evaluating the effectiveness of the program of psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students, positive changes in the key indicators of the quality of life of pupils and students have been noted.

Besides, it stands to mention, that the highest values of positive impact were both in the adolescent boys and girls according to the Social Functioning (SF) grading scale ( $p(t)_{cg-ig} < 0.05-0.001$ ) and the Mental Health (MH) grading scale ( $p(t)_{cg-ig} < 0.05-0.001$ ). It should be noted that this program had the highest positive impact on the indicators of the quality of life according to the Social Functioning (SF), Mental Health (MH) and General Health (GH) grading scales.

The obtained data demonstrate that implementation of the program of psychophysiological effects on the body, psychohygienic correction of personality development processes and improvement of the quality of life of pupils and students, which includes: study of the level of development of psychophysiological functions, personality characteristics and indicators of the quality of life in each of the participants as well as taking into account the leading areas of their development within certain frameworks of educational process (the milestone of psychodiagnostics and assessment of the level of development of psychophysiological functions and personality traits); performing a set of exercises to relieve muscle spasms, isometric and respiratory gymnastics, as well as exercises of asymmetric gymnastics (the milestone of physical impact); application of psychophysiological component (the milestone of psychophysiological influence); introduction of a psychohygienic component (the milestone of psychohygienic correction), forms the basis for creating the foundation for activating positive changes in the peculiarities of psychophysiological and mental adaptation and characteristics of the quality of life of modern youth at educational institutions of various types.

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## Conflict of interest:

*The Authors declare no conflict of interest.*

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