

Development of Diagnostic Tools and Determination of the State of Formation of Social Health of Male and Female Students Assigned to a Special Medical Group

BABICH VJACHESLAV¹, BOYCHUK YURIY², POLULJASSHENKO YURIY¹, ZAYTSEV VOLODIMIR³,
DUBOVOYI OLEKSANDR⁴, DOLYNNIY YURIY⁵

¹ SI "LuhanskTaras Shevchenko National University", Ukraine

² H. S. Skovoroda Kharkiv National Pedagogical University, Ukraine

³ Chernihiv National University of Technology, Ukraine

⁴ Institute of Chemical Technologies of Volodymyr Dahl East Ukrainian National University, Rubizhne, Ukraine

⁵ Donbas State Machine-Building Academy, Kramatorsk, Ukraine

Abstract:

Objective: to establish and implement a comparative analysis of the levels of social health formation of male and female students; to identify the main areas of improvement of the physical education syllabus for the SMG students (taking into account the psychological peculiarities of girls and boys). **Material:** the 2nd year students of the special medical group (n = 320: girls - n = 167, boys - n = 153) took part in the experimental work. The age of the survey participants ranged from 18 up to 19. The data of the ascertaining experiment were collected with the help of a set of such research methods: a closed-ended questionnaire about the need for achievements (by Yu. B. Orlov), a questionnaire on "value orientations" (M. Rokeach), a questionnaire on assertiveness (by Rathus); a questionnaire on neuro-psychic tension (by T. A. Nemchin). **Results:** the author's methodology for determining the levels of social health of students of a special medical group has been developed and tested. It has been discovered that the level of social health of more than one third of the SMG students (35,2% of boys and 38% of girls) is low and below average. It has also turned out that the difference (according to the levels of social health formation) between boys and girls (to the advantage of boys) is not significant. The author has defined the concept of "social health of students of a special medical group", criteria and indicators of social health of the SMG students. **Conclusions:** the developed methods of diagnostics of social health of the SMG students allows: to monitor changes in the state of social health of the SMG students (boys and girls) in dynamics; to improve theoretical, methodological and practical components of the process of physical education in the given context (taking into account psychological peculiarities of girls and boys); to develop and realign an individual health-improving program of a student. The results of the study also testify that there is a need to modify the process of organizing physical education for the SMG students. This will involve the use of innovative technologies aimed at increasing social health of the SMG students in the process of practical training in physical education.

Key words: social health, students, a special medical group, physical education, diagnostic methods.

Introduction

The modern pace of life, social and economic transformations, the aspiration of Ukraine to become a European state require a modern young man to have high social mobility. There is an urgent need to adapt quickly to new living conditions, to be personally oriented towards maximum self-realization in social life etc. It is particularly difficult for the young people who have chronic diseases of one or more systems to realize themselves in such conditions (Babich et al, 2017). We mean here a rather vulnerable category of society — the students belonging to a special medical group due to the state of their somatic health.

Modern research suggests a deterioration of young students' health before they enter a university (Fotynyuk, 2017). Analysis of scientific sources allows us to state the limited quantity of treatises on social health formation of students of a special medical group. In this regard, in our study, we were guided by the best scientific practices of domestic and foreign scholars in three main areas.

The first direction of the scientific research included analysis of literary sources on the organization of the process of physical education of students of the main medical group (without significant deviations in the state of their somatic health). This direction included works devoted to: the problem of customization of physical training of young students (Druz et al, 2017, Andrieieva et al, 2017,); studying the reasons for the lack of students' interest in physical education and sports (Kondakov et al, 2015); determining the state of healthcare and physical education classes of the first year students (Fotynyuk, 2017) (the current tendency of young students to neglect the importance of their health is emphasized); evaluation of the level of physical development and physical fitness of students (Fotynyuk, 2017) (it is noted that there is a low level of motivation of students for physical education, lack of interest in doing sport in their free time, etc.); the problem of finding ways to improve the quality of life of university students by means of physical education (Leifa, 2017) (the role of purposeful and regular physical activity in the context of improving the quality of life of students is disclosed);

the issues of innovations in the field of educational technologies of physical education of students (Mykolaiovych & Yarmoshchuk, 2016) (the need for the humanitarian essence of physical education, its focus on the high professional, the spiritual and value and the general cultural development of a student's personality are emphasized); the disclosure of the spiritual and social aspects of the physical education organization for the younger generation (Boichuk, 2013); detecting the interrelation between sport and mental health of students (Kenioua & Boumasjed, 2016) (it is noted that mental health of the main medical group students is much lower than that of student athletes).

The second line of the scientific research included analysis of scientific literature in the context of disclosing various aspects of diagnosing the state of somatic health and motor skills of the SMG students. In addition—improvement of the process of physical education of the SMG students.

Within a framework of this direction we analysed scientific works devoted to: issues of monitoring the functional state of power abilities of the SMG students (Koryahin & Blavt, 2016); the determination of the reliability of functioning and reserves of the control system of movements of different coordination structures among female students of a special medical group in the process of physical education (Pryimakov et al, 2017); the search of modern technologies of physical education of students with health limitations in conditions of inclusive education (Adyrkhaev, 2016); the development of health-applied technology of physical development of students of a special medical group (Bartnovskay et al, 2017); (it is noted that the methodology of individual health of a person, his/her deep and socially motivated need for being healthy should make the basis for preserving and improving health of students of a special medical group); the issues of individual health-applied activities of female students of a special medical group (Bartnovskay et al, 2017); (it is proved that female students independently are not physically active and put no effort into health preservation); the problems of the integral approach to physical and health activities of students of special medical groups (Zaharova & Lyulina, 2014); studying the problem of improving the psychophysical state and psychosocial health of students of special medical groups by means of fitness yoga (Skurikhina, 2016).

In the context of *the third direction* of the scientific research, the literature on social health of a person (secondary school students and undergraduates) was analysed, in particular devoted to: the problem of social health in Ukraine (Yevtukh, 2015); issues of developing and improving social health of adolescents by means of the information and communication technologies (Podnebesnaya, 2007); the study of the pedagogical diagnostics of social health of a child (Pristupa, 2015).

In order to define the term "social health of a student of a special medical group", it was also important to analyse the concept of "social health". A foreign scholar L. A. Baikova notes that social health of a person can be defined as a state of harmony between personal values and the human's activity (which contribute to his self-actualization and the positive, humane development of the society) (Baikova, 2009). V. I. Babich considers social health to be a complex integrated personal quality characterized by: readiness for a comprehensive self-actualisation in public life; the ability to interact with the micro-, meso- and macro environment; the presence of social and legal responsibility; the focus on the disclosure of one's own potential in various spheres of social environment (Babich, 2014). V. I. Kolisov views social health of a student as a set of normative ideas about his own social behaviour, the moral and spiritual, the social and cultural, and the behavioural orientations (Kolesov, 2009). On the basis of everything set forth above, we developed such a definition of the term "social health of a student of a special medical group", which we consider to be a complex integrated personal quality (the essence of which is formed by a set of relevant personal and professional competencies) disclosed through: the desire of a future specialist to maximize self-actualisation in public life; the orientation towards achieving results; the ability to provide general and professional communication; the legal and civic responsibility and the responsibility for one's own health (Babich et al, 2017).

Hypothesis: the authors assume that the formulation of the methodology for diagnosing the state of social health of the SMG students will allow monitoring its changes in dynamics (during a year or training courses). This will make it possible to determine the impact of physical education on social health formation of the SMG students (for females and males); to set the directions of improvement of the theoretical, methodological and practical components of physical education in this aspect (taking into account the psychological peculiarities of girls and boys).

In its turn, it requires:

- selection of the best research methods for assessing the level of social health of the SMG students upon each individual criterion and its indicators (this is preceded by: the analysis of scientific literature; defining the term "social health of the SMG students"; the development of criteria and indicators for social health of the SMG students);
- analysis of the physical education syllabus for students of a special medical group, analysis and synthesis of scientific literature in this field;
- ascertaining the problematic aspects (disadvantages of the physical education syllabus) in the context of forming social health of the SMG students;

• development of guidelines for the correction of the contents of the physical education syllabus in the context of forming social health of the SMG students.

The aim of the research is to: establish and implement a comparative analysis of the levels of social health formation of male and female students; detect the main areas of improving the physical education syllabus for the SMG students (taking into account psychological peculiarities of girls and boys).

Material and methods

Participants. The experimental part of the research had 320 respondents (167 girls and 153 young men) participating in it. These were students (aged 18-19) of a special medical group doing their second year of study in higher educational institutions.

Evaluation of the state of social health formation of students of a special medical group (taking into account the multifaceted nature of this phenomenon) required development of a methodology for diagnosing social health of the SMG students. It consists of a set of research methods, criteria and indicators of social health of the SMG students. Among all existing research methods, we selected the following ones: a questionnaire about the need for achievements (by Yu. B. Orlov); a questionnaire on "value orientations" (M. Rokeach) to determine the level of social health formation of the SMG students according to the motivational criterion; a questionnaire on assertiveness (by Rathus) and a questionnaire on neuro-psychiatric tension (by T. A. Nemchin) to assess the level of social health formation of the SMG students upon the emotional-volitional criterion.

Organization of researches.

With the help of the questionnaires, we conducted a written survey of students of: the Institute of Chemical Technologies of Volodymyr Dahl East Ukrainian National University, Rubizhne, (Ukraine); Chernihiv National University of Technology; State Institution "Luhansk Taras Shevchenko National University", Starobilsk (Ukraine).

The research was carried out through *four stages*:

At the first stage (February-March, 2017), we worked out the main directions of the pedagogical experiment, as well as developed a methodology for determining the state of social health formation of the SMG students.

At the second stage (April-May, 2017) a survey of the SMG students was conducted in accordance with the developed methodology.

At the third stage (June-September, 2017) the research results were analysed and generalized.

At the fourth stage (October-December, 2017) analysis of the physical education syllabus for the SMG students, as well as of the relevant scientific literature, was carried out. Guidelines on improving the content of the physical education syllabus in the context of social health formation of the SMG students were developed.

Mathematical and statistical processing. To compare the frequency distribution between boy-students and girl-students Pearson's chi-squared test χ^2 was used. It allows juxtaposing two empirical distributions and concluding if they are consistent with each other (Paniotto, 2004).

Pearson's chi-squared test χ^2 is calculated by the formula:

$$\chi^2 = \sum_{i=1}^k \sum_{j=1}^l \frac{(N_{ij} - N_{ij}^0)^2}{N_{ij}^0},$$

Results

In order to carry out the ascertaining experiment, we determined the criteria and indicators of the state of social health formation of the SMG students. *The first criterion* is **motivational** (it is evaluated upon such indicators as: "the aspiration of students for maximum self-actualisation in social life" and "value attitude to one's own somatic health"). *The second criterion* is **emotional-volitional** (it is assessed upon such indicators as: "assertiveness", "neuro-psychic tension"). To evaluate the state of social health of the SMG students a special methodology made up of a set of questionnaires (specified in the section "Organization of the study") was developed.

The process of assessing the state of social health formation of the SMG students upon the first indicator of the motivational criterion was conducted with the help of a questionnaire about the need for achievements by Yu. B. Orlov. The respondents had to express their opinion on 22 statements in the questionnaire. *In case they agreed with the statement, the students had to put "Yes" next to it, if they disagreed - "No".* When processing the survey results, it was found that a relatively small number of the SMG students (18,7% of boys and 17,6% of girls) was persistent in achieving goals (corresponds to the high level of students' needs in life achievements). Much more respondents had the level of need for achievement that was above average (21,3% of boys and 18,4% of girls) and the average (27,2% of boys and 26,7% of girls). Meanwhile, a significant number of students, both boys (19,5%) and girls (21,1%), had the need for achievements that was below average (by Yu. B. Orlov) and 13,3% of boys and 16,2% of girls did not feel such a need at all (low level).

Certain differences (in favour of youngmale students) are present due to the fact that young men feel greater responsibility for the material provision of the future family, as well as the need for further self-actualisation. This is a national trait of Ukrainians.

With the aim of conducting a more comprehensive analysis of the state of social health formation of the SMG students (upon the motivational criterion), in our opinion, it was sensible to evaluate the level of students' responsibility for the state of their own somatic health. The reason is that the lack (or underestimation) of such responsibility does not contribute to full self-actualisation of students in *the present and the future*. Evaluation of the state of social health formation of the SMG students upon the second indicator of the motivational criterion, which is called "value attitude to one's own somatic health" was carried out with the help of a questionnaire on "value orientations" by M. Rokeach. According to this method, the students ranked a list of values given (assigning a rank number to each of the vitally important values on the list), from the first up to the last place respectively.

In the course of the ascertaining experiment the following data were obtained: 15,8% of boys and 16,3% of girls ranked "health" as the most important value (high level of the motivational criterion formation upon this indicator); 12,7% of boys and 14,2% of girls assigned the second rank number to "health" (above average); 24,2% of boys and more than twenty seven percent of girls (27,5%) ranked this value in the third place (average); a significant number of students of both sexes (30,6% of boys and 26,4% of girls) gave "health" the fourth or the fifth place in the structure of life values (below average); 16,7% of boys and 15,6% of girls ranked "health" below the fifth place (low motivation for recovering and improving one's own somatic health by means of physical education).

When analysing the obtained results it was found that the vast majority of the SMG students (76.4% of boys, 82.1% of girls) who had given "health" the first place in the list of values, had chronic diseases of two or even three systems at the same time. In its turn, this suggests that most SMG students highly appreciate the value of health provided that they have significant problems in the state of their somatic health.

It is worth mentioning that the number of students who had a high level of the need for self-actualisation was close to the number of students who rated health highly in the structure of life values (with a difference of 2,9% (boys) and 1,3% (girls)). This interrelation suggests that the number of students who highly appreciate their own somatic health is correlated with the number of students who seek maximum self-actualisation in social life. This, in our opinion, confirms the objectivity of the indicators selected for the motivational criterion. With the help of a diagram (see Diagram 1), we can clearly track similar differences at all levels simultaneously (the high, the above average, the average, the below average and the low levels).

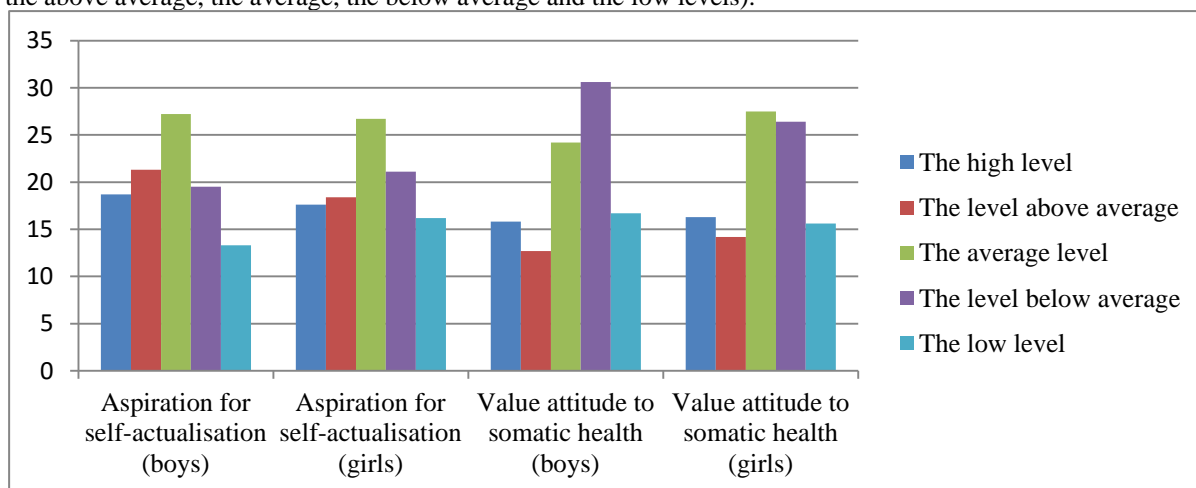


Diagram 1. Comparison of the 1st and the 2nd indicators of the motivational criterion

The difference (by levels) between boys and girls upon the motivational criterion ranges from 0,5 up to 3,4% maximum. We can state that this is not significant.

Evaluation of the state of social health formation of students (by the first indicator of the emotional-volitional criterion) was carried out with the help of a questionnaire on assertiveness (by Rathus). Accordingly, the respondents had to indicate (with the help of a special code in the questionnaire) how much each of the statements given is characteristic of the students themselves. The analysis showed that 18,7% of boys and 19,5% of girls did not feel assertive at all (the low level). 11,76% of boys and 15,7% of girls had the level below average. 25,4% of boys and 29,6% of girls generally felt assertive (the average level), 21,1% of boys, and 16,4% of girls had the level above average upon this indicator. Only 23,2% of boys and 18,8% of girls turned out to have the high level of assertiveness.

From the information given above, we can see that in general, the level of assertiveness among the male students is higher, than that of the girls (4,3% higher at the high level, 4,7% higher at the level above average).

Such results correlate with the results obtained upon the first indicator of the motivational criterion ("the aspiration of students to maximize self-actualisation in social life"). Although the difference between girls and boys upon this indicator (in favour of boys) is somewhat lower than those given above and range from 1,1% — at the high level up to 2,9% — at the level above average.

With the aim of assessing the level of nervous and mental stress of the SMG students, we used a questionnaire on neuro-psychiatric tension (by T. A. Nemchin) [26]. The students responded to the questions in accordance with the instructions given in the questionnaire. The questionnaire showed that a fairly significant number of the SMG students (18,1% of boys and 20,7,2% of girls) felt excessive nervous and mental stress (the low level). More than eleven percent of boys (11,5%) and 16,5% of girls had extensive nerve and mental stress (the level below average). On the contrary, most students 27,1% of boys and 30,1% of girls felt moderate nervous and mental stress (the average level). 15.6% of boys and 15.2% of girls had an intense neuro-psychic tension (the level below average). A relatively small number of students (27,8% of boys and 17,5% of girls) suffered from a neuro-psychic tension (the high level of the emotional-volitional component formation upon the anxiety indicator). With the help of a diagram (see Diagram 2) of the information given above, we can see that the number of the SMG students who have excessive or extensive neuro-psychic tension in some way correlates with the results obtained upon the first indicator of the emotional-volitional criterion (students' assertiveness) ranging from 0,2% up to 4,6% for the boys and 0,5% up to 0,8% for the girls. Thus, it can be stated that the interdependence of the level of the neuro-psychic tension and assertiveness is more obvious with the girls than with the young men.

Comparison (when analysing the results of the ascertaining experiment) of the data obtained (generalization upon all the indicators of the motivational and the emotional-volitional criteria) allowed to conclude that, *firstly*, more than one third of the SMG students (35,2% of boys and 38% of girls) has the low level of social health formation and the level below average. This testifies to the predominantly inadequate level of social health of the SMG students. *Secondly*, there are some differences between male and female students.

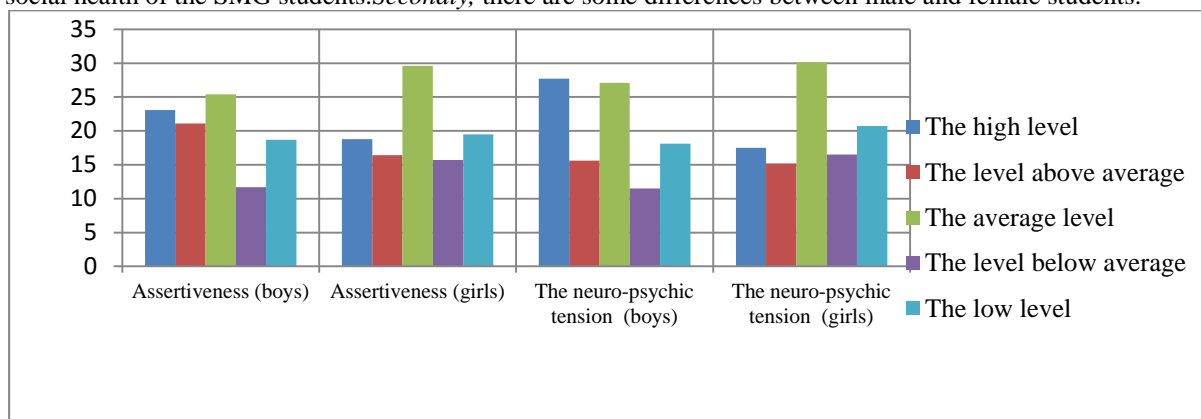


Diagram 2. Comparison of the 1st and the 2nd indicators of the emotional-volitional criterion

With the help of a diagram (see Diagram 3), we can see that the number of male students who have the high level of social health formation exceeds the number of female students with the same level of social health formation by 3,8%.

At other levels (the level above average, the average level, the level below average, and the low level), such differences ranged from 0,5 up to 3,5. The positive superiority of the girls over the boys (by 3.5%) was present in terms of the average level of social health formation.

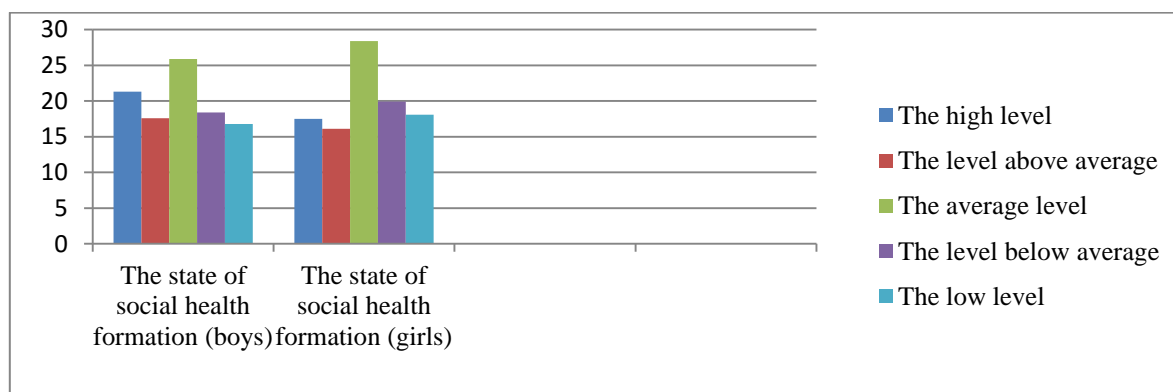


Diagram 3. Comparison of the general state of social health formation between boys and girls

At the same time, it should be noted that when comparing the data obtained (male and female students), the criterion χ^2_{emp} was set below the critical value of 5,99. Therefore, the differences between the distributions of the boys and the girls by the levels of social health formation are insignificant ($p > 0,05$).

Discussion

The analysis of the results based on the motivational criterion allows us to ascertain a lack of awareness of a significant part of the SMG students (both girls and boys) regarding the importance of the systematic improvement of their social health. The fact that the value of "health" is underestimated by most SMG students also indicates that physical education is not sufficiently focused on solving this problem. This corresponds to the results of studies conducted with the students of the main medical group (without abnormalities in the state of physical health) (Osipov et al, 2017) and (Lachno, 2015), which emphasize insufficient motivation of students for physical education classes, as well as the need to increase their motivation. According to many scholars, one of the conditions for improving students' motivation for physical education is to increase the level of knowledge of physical education. In our opinion, this is also appropriate for the SMG students. Especially in the context of increasing their awareness of how to improve their own level of social health.

The obtained results (regarding formation of the emotional-volitional criterion of the SMG students' social health) indicate that a significant number of girls and boys are not assertive. The fact that many students suffer from neuro-psychic tension also negatively affects the level of confidence of future specialists in their own abilities. As a result, a significant number of students with some problems in the state of somatic health has a certain sense of social inferiority. This may lead to the low self-esteem of the SMG students. We compared the results received with the results obtained by other scientist who studied the properties of temperament and self-esteem of students of the main medical group (without problems in the state of somatic health). The research results showed that 15% of students have a low self-esteem; 25% of students tend to underestimate themselves; 50% of students have an adequate self-esteem; 10% of students have the tendency to overestimation (Liashenko et al, 2016). From the data given above, we can see that the students who have no significant problems in the state of somatic health also tend to underestimate themselves (have low self-esteem). Instead, the comparison of the research results suggests that the SMG students (boys and girls) have a relatively greater tendency towards low self-esteem than students without abnormalities in the state of somatic health.

The results received in terms of the level of neuro-psychic tension (the emotional-volitional criterion) of the SMG students indicate the need to create comfortable conditions in physical education classes. They also put forward the need to use innovative approaches to the organizations of the process of physical education of the SMG students in order to remove (minimize) the neuro-psychic tension of the students and increase their level of confidence in their own abilities.

In this context, we fully agree with the recommendations made by foreign experts (for students of the main medical group) regarding the need to use the system of specific forms of organization of physical education classes and also to implement such methods of influence that correspond to the humanistic principle "to encourage, but not to force" (Kondakov et al, 2015). Such recommendations, in our opinion, are even more justified in relation to the students that have problems in the state of somatic health (especially female students), particularly in the context of raising their level of social health. This is explained by the greater vulnerability of girls at this age compared to male students. Long-term observations of the authors of the article testify to the outdated approaches to the organization of physical education of the SMG students. The existing approaches that Ukraine inherited from the Soviet Union (characterised by drilling in relation to students) negatively affect both the psychological state of a personality and the desire of students (females and males) to attend classes (Babich et al, 2017).

We completely share the opinion of other scholars (M.D.Kudryavtsev, I.E. Kramida, S.S. Iermakov, A.Yu. Osipov) who have investigated the personal components of healthy lifestyle of students of the main medical group. According to the scientists, physical education classes must be focused on the development of emotional stability and tolerance in relation to other people (Kudryavtsev et al, 2016). That is, it is not just about the mental component of health but also about the social one. This is definitely even more important for students (of both sexes) with significant deviations in the state of somatic health.

The results received during the ascertaining experiment urged us to analyse the content of the physical education syllabus for the SMG students. The analysis of the physical education syllabus for the SMG students showed that its content almost does not include (within the theoretical training of students) any issues related to the essence of social health and the possibilities for its improvement. There are no recommendations for the implementation of organizational innovations with the aim of raising the level of social health of students (taking into account the psychological peculiarities of girls and boys). This, in its turn, testifies to the obsolete content of the physical education syllabus, namely its theoretical, methodological and practical components. Such a statement is consistent with a number of other studies (conducted mainly with students of the main medical group).

Among them is the study of the problems of improving physical, mental, social and moral health of students in the process of physical education (Kudryavtsev et al, 2016). Within this research, the scholars emphasize the need to change approaches to teaching (physical education) in terms of acquiring vital skills and abilities for adaptation in the modern social and cultural environment. This would also allow correcting deviations in various aspects of physical, mental, social and moral health of students (Kudryavtsev et al, 2016). Other specialists M.D. Kudryavtsev, Yu.A. Kopylov, V.A. Kuzmin, O.M. Ionova, T.S. Yermakova (on the basis of a thorough analysis of various aspects of physical education, sport and health of students from Russia, Poland and Ukraine) also arrived at the conclusion that the use of the new and the most attractive forms of physical activity of students (the main medical group) should be introduced. The authors point to the need for: regulation of motor activity of students, taking into account the motivation to achieve success or avoidance of failures; increase in students' resistance to psychophysiological stress; promoting formation of students' health culture (Iermakov et al, 2016). Emphasizing the importance of taking into account the students' motivation to succeed, the authors decisively lay stress on the need of physical education to be oriented towards forming socially healthy youth.

The need for analysis and improvement of the content of physical education (in different directions) is confirmed by investigations of other scientists (A.N. Kolumbet, L.Yu.Dudorova), in particular foreign ones (Kolumbet & Dudorova, 2016). Some treatises convincingly emphasize the need to update the content of education, forms and methods of work used in physical education with the aim of making the classes more oriented towards health-improvement (Fotynyuk, 2017). Other modern scientific publications put a stress on the necessity of bringing changes into the methodology of conducting physical education classes (in particular, a consistent and purposeful use of cardio and power training) (Osipov et al, 2017). The researches that emphasize the present need to find fundamentally different solutions to the problems of preserving and improving health of the SMG students are particularly important (for our study). The methodology of individual human health and the human's deeply and socially motivated needs to be healthy should make (according to the authors) the core of these solutions (Bartnovskaya et al, 2017).

Based on the researches mentioned above and the experience of the authors of the article, we will devise guidelines for improving the physical education syllabus for the SMG students. That would contribute to raising their level of social health. The guidelines are as follows:

Firstly, it is advisable to adjust the theoretical component of physical education by supplementing the elective component of the physical education syllabus. The content of the theoretical part of the syllabus should show the potential of physical education in the context of forming the students' motivation to improve their social health (forming assertiveness, increasing the value of "health", aspiration for personal and professional self-actualisation, reducing the neuro-psychic tension).

The content of the theoretical part of the program should be supplemented by the following issues:

- the essence of social health;
- the importance of social health formation for a person with deviations in the state of somatic health;
- the opportunities physical education gives for raising the level of social health (in curricular and extra-curricular activities).

Secondly, methodical training on physical education should be aimed at developing such skills of the SMG students as: a skill to independently diagnose one's own social health; a skill to draw up and realign an individual health program taking into account the need for the systematic improvement of one's own social health.

Thirdly, the practical part of physical education should be based on a competence approach. It should provide students with practical skills to increase social health throughout their lives (with the maximum focus on the realisation of their potential in all spheres of the social environment). The organization of practical training in physical education should include: the use of innovative technologies aimed at raising the level of social health of the SMG students (taking into account the psychological peculiarities of girls and boys); the formation of the value attitude towards one's own health; the increase in the level of need for achievements; the decrease in the level of neuro-psychic tension; assertiveness.

Fourthly, independent work (on physical education) of the SMG students should focus on the development of creative thinking in the context of finding ways to improve and systematically execute their own program of recovery, and increase in the level of social health.

Conclusion

- 1) The developed methodology for diagnosing social health of the SMG students allows: tracking changes in the state of social health in dynamics; drawing up and realigning an individual health program of a student (taking into account its change during the academic year, and the entire period of study in a higher education institution); improving theoretical, methodological and practical components of physical education in this context (taking into account the psychological peculiarities of girls and boys).

- 2) It has been discovered that the main reason for the insufficient level of social health formation of a great number of the SMG students (35,2% of males and 38% of females) is lack of orientation of theoretical, methodical and practical training in physical education towards this aspect.
- 3) The research results testify to the need for adjustments (changes) made to the physical education syllabus (for the SMG students) with the aim of raising the students' level of the need for achievements, the value attitude towards their own health, assertiveness and decreasing the level of neuro-psychic tension. There is a need for correction of the process of organizing physical education with the SMG students, which will include the use of innovative technologies aimed at increasing social health of the SMG students.
- 4) The research results confirm that the proposed methodology for diagnosing the state of social health of the SMG students (as well as the suggested guidelines for improving the physical education syllabus) will contribute to optimizing the process of forming social health of the SMG students in higher education institutions.

Conflicts of interest

The authors state that there is no conflict of interest.

References

- Adyrkhaev, S. G. (2016) Modern technology of physical education of disabled students in conditions of inclusive education. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 1(20), 4-12.
- Andrieieva, O., & Hakman, A., & Balatska, L., & Moseychuk, Y., & VASKAN, I., Kljus, O. (2017) Peculiarities of physical activity regimen of 11-14-year-old children during curricular and extracurricular hours. *Journal of Physical Education and Sport®*, (4), 2422-2427.
- Babich V. I., & Onuchak Ya. S., & Zubiuk L. V. (2016) Elucidation of the Possibilities of Social Health Formation of Adolescents in the Curricular and Extra-curricular Process of General Educational Institutions. Starobilsk: *Bulletin of Luhansk Taras Shevchenko National University: Pedagogical Sciences*, 4(31), 134-141.
- Babich, V. I. (2014) Innovative Approaches to the Evaluation of Knowledge of Future Teachers in the Context of Social Health Formation of Students of General Educational Institutions. *Innovative Educational Technologies*. Minsk, 1(37), 24-28.
- Babich, V. I., & Poluljashenko, Y. M., & Dubovoyi, O. V., & Pavliuk, O. M. (2017) The Problem of Social Health Formation of Students of a Special Medical Group in the Perspective of Reforming the System of Education. *The Youth and the Market. Drohobych Ivan Franko State Pedagogical University*. Drohobych, 11(154), 56-67.
- Baikova, L. A. (2009) Theoretical and Methodological Foundations of the Investigation into Social Health of Children and Young Students. *News of the Russian Academy of Education*, 3, 122-136.
- Bartnovskay, L. A., & Kudryavtsev, M. D., & Kravchenko, V. M., & Iermakov, S. S., Osipov, A. Yu., & Kramida, I. E. (2017) Health related applied technology of special health group girl students' physical training. *Physical education of students*, 1(21), 4-9.
- Bartnovskay, L. A., & Kudryavtsev, M. D., & Kravchenko, V. M., & Iermakov, S. S., & Osipov A. Yu., & Kramida, I. E. (2017) Health related applied technology of special health group girl students' physical training. *Physical education of students*, 1(21), 4-9.
- Bartnovskay, L. A., Kudryavtsev, M. D., Kravchenko, V. M., Osipov, A. Yu., Baranovskaya, L. A., Ignatova, V.V. (2017) Individual health related applied activity in special health group girl-students' way of life in the process of their studying. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 5(21), 207-213.
- Big Encyclopedia of Psychological Tests. Moscow: Eksmo; 2007. p. 416.
- Boichuk, Yu. D. (2013). The Spiritual and Philosophical Aspect of Different Systems of Physical Education. Materials of VII International Scientific and Methodological Conference "The Current Problems of the Traditional and Oriental Martial Arts Development"; February 22, 2013; Kharkiv: KhAIF of the Ministry of Internal Affairs of Ukraine; 2013. pp. 97-101
- Druz, V. A., & Iermakov, S. S., & Nosko, M. O., & Shesterova, L. Ye., & Novitskaya, N. A. (2017) The problems of students' physical training individualization. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 2(21);, 51-59.
- Fotynyuk, V. G. (2017) On health protection and health related physical culture trainings of first year students. *Physical education of students*, 1(21), 17-21.
- Fotynyuk, V. G. (2017) Determination of first year students' physical condition and physical fitness level. *Physical Education of Students*, 3(21), 116-120.
- Iermakov, S. S., & Cieślicka, M., & Muszkieta, R. (2015) Physical culture in life of Eastern-European region students: modern state and prospects of development. *Physical Education of Students*, 6(19), 16-30.

- Kenioua, M., & Boumasjed, A. E. (2016) Sport and mental health level among university students. *Physical Education of Students*, 3(20), 39-42.
- Kolesov, V. I. (2009) Social Health of Students. *Bulletin of Saint-Petersburg University*, 2(42), 217-229.
- Kolumbet, A. N., Dudorova, L. Yu. (2016) Correction of physical education program for technical higher educational establishment girl-students on the base of their health indicators. *Physical education of students*, 6(20), 18-25.
- Kondakov, V. L., & Kopeikina, E. N., & Balysheva, N. V., & Usatov, A. N., & Skrug, D. A. (2015) Causes of declining interest of students to employment physical education and sports. *Physical education of students*, 1(19), 17-21.
- Koryahin, V. M., & Blavt, O. Z. (2016) Echnological provision in goftest control of special health group students' power abilities. *Physical education of students*, 1(20), 43-48.
- Kudryavtsev, M. D., & Kramida, I. E., & Iermakov, S. S., & Osipov, A. Yu. (2016) Development dynamic of healthy lifestyle personality component in relatively healthy students. *Physical Education of Students*, 6(20), 26-33.
- Kudryavtsev, M. D., & Kopylov, Yu. A., & Kuzmin, V. A., & Ionova, O. M., Yermakova, T. S. (2016) Personality oriented system of strengthening of students' physical, psychic and social-moral health. *Physical Education of Students*, 3(20), 43-52.
- Lachno, O. G. (2015) Motivation for physical culture as factor of students' functional state optimization. *Physical Education of Students*, 5(19), 31-38.
- Leifa, A. V., & Zheleznyak, Y. D. (2017) Influence of physical activity on students' life quality. *Physical Education of Students*, 5(21), 244-248.
- Liashenko, V. N., & Tumanova, V. N., & Hatsko, E. V. (2016) Study of personality's temperament and self-assessment of higher educational establishments' students. *Physical Education of Students*, 2(20), 19-23.
- Mykolaiovych, V. V., & Yarmoshchuk, O. O. (2016) Socio-cultural Principles in Modern Science and Educational Technologies of Physical Education. *Scientific Journal «ScienceRise»*. [Electronic Source]. 2016;3/5(20)2015. Available at :<https://osjournal.org>
- Osipov, A. Yu., & Kudryavtsev, M. D., & Iermakov, S. S., & Yanova, M. G., & Lepilina, T. V., & Plotnikova, I. I., & Dorzhieva, O. S. (2017) Comparative analysis of effectiveness of some students' physical culture training methodic. *Physical Education of Students*, 4(21), 176-181.
- Paniotto, V. I., & Maksymenko V. S., & Kharchenko N. M. (2004) Statistical Analysis of Sociological Data. Kyiv: Publ. House "KM Academy"; 2004. p. 270.
- Physical Education. The Syllabus for Higher Education Institutions of Ukraine of Accreditation Levels III-IV. Kyiv; 2003. p. 32.
- Podnebesnaya, E. I. (2007) Pedagogical Aspects of Developing and Improving Social Health of Adolescents by Means of Information and Communication Technologies. *Bulletin of Tambov University. Series: Humanities*, 12, 218-221.
- Pristupa, Ye. N. (2015) Pedagogical Diagnostics of Personal Social Health a Child [Electronic Source]. 2015. Available at : <http://www.psyh.kiev.ua>
- Pryimakov, A. A., & Eider, E., & Nosko, M. O., & Iermakov, S. S. (2017) Reliability of functioning and reserves of system, controlling movements with different coordination structure of special health group girl students in physical education process. *Physical education of students*, 2(21), 84-89.
- Rozov, V. I. (2005) Adaptive Anti-stress Psychotechnologies: Teach. Manual. Kyiv :Kondor; 2005. p. 278.
- Skurikhina, N. V., & Kudryavtsev, M. D., & Kuzmin, V. A., & Iermakov, S. S. (2016) Fitness yoga as modern technology of special health groups' girl students' psycho-physical condition and psycho-social health strengthening. *Physical education of students*, 2(20), 24-31.
- Yevtukh, M. B. (2015). The Problem of Social Health in Ukraine. *Bulletin of Chernihiv T.H. Shevchenko National Pedagogical University. Pedagogical Sciences. Physical Education and Sports. Chernihiv*, 124, 74-77.
- Zaharova, L. V., & Lyulina, N. V. (2014) Basis of integrated approach to sports and recreational activities of students of special medical groups. *Physical education of students*, 1(18), 17-21.