

11. Richards L.G. Stimulating creativity: Teaching engineers to be innovators // Proceedings of 1998 IEEE Frontiers in Education Conference, 3. 1998. – P. 1034-1039.

12. Stouffer W.B. Making The Strange Familiar: Creativity and the Future of Engineering Education / W.B. Stouffer, J.S. Russell, M.G. Oliva // Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition. Copyright 2004, American Society for Engineering Education / [Elektronnyi resurs]. – Rezhym dostupu :

[http://www.ersilia.org/documents/Repensant\\_educacio/Creativity%20and%20the%20Future%20of%20Engineering%20Education.pdf](http://www.ersilia.org/documents/Repensant_educacio/Creativity%20and%20the%20Future%20of%20Engineering%20Education.pdf)

## **ANALYSIS OF ENGINEERING PROFESSIONAL ACTIVITY UNDER DEVELOPMENT OF AGRARIAN PRODUCTION COMPLEX**

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*The article presents analysis of the point and the character of engineering activity under innovative development of agrarian production complex. A creative component of innovative engineering activity has been emphasized. Types of engineering creative work are considered.*

***Engineering, engineering creative work, engineering thinking, creative potential, innovation.***

**УДК 351.361**

## **PHYSICAL CONDITION OF PROSPECTIVE TEACHERS AND THEIR READINESS TO USE HEALTH-CONSCIOUS TECHNOLOGIES: EXPERIMENTAL RESEARCH RESULTS**

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*The article deals with the topical issues of prospective teachers' health-consciousness. The results of the first year students and their physical condition experimental studies have been presented. The prospective teachers are the students of the Ukrainian, Foreign Languages and Art-Criticism Department, Dnipropetrovsk Oles Honchar National University.*

*The author highlights the necessity to train prospective teachers to use health-conscious technologies in their professional activity. The research is focused on the necessity and reasonability to adapt and implement international standards of minimal physical activity into the academic program within the context of globalization and standardization. It also points out the need to design and launch minimal standards of health-eating as unified instruments of health-consciousness. The authors describe aims and the main points of the World Health Organization standards regarding minimal physical motion activity.*

*Prospective teachers, physical condition, experimental studies, World Health Organisation, physical motion activity, healthy eating.*

**Problem.** According to the World Health Organization (hereinafter - WHO) a problem of a health threat to both of individuals and humanity itself is considered to be the additional global seventh threat to the six previously identified ones (i.e. threat of the world war, lack of the planet resources, ecological cataclysms, etc). Researches of WHO discovered significant decline in people's health condition worldwide. It demands immediate interference of the states and their governments into the problem. National health protection programs, first of all, those concerning physical motion activity aspects and healthy eating habits should be elaborated. Thus, this problem demands careful attention of both practitioners and scientists at different national and lower levels. A problem of prospective teachers' physical condition study and the analysis of their readiness to use health-conscious technologies is an important and underexplored issue. To solve it is the objective of our article.

**Last publications analysis.** Works of those who study issues of healthy lifestyle are in the focus of our great interest. Among the researchers are O. Balakirjeva, N. Komarova, R. Levin, O. Vakulenko, O. Yaremenko L. Zhalilo, , etc; health protection of studying

youth is the subject of research of O. Yezhova (2010), O. Omelchenko (2008), S. Futorny (2011). The same problem of students was studied by L. Bezugla (2009), Y. Dragnev (2008), O. Sokolenko (2008). Recreational activity was analyzed by O. Andreeva (2007), T. Krutsevytch (2010), and others. Researchers also paid attention to such aspects of processes and social issues as the ones bordering on the physical culture and non-professional physical education: theoretical and methodological basis of professional and practical education of students (L. Pylypei, 2011; A. Radchenko, 2012)

Researchers-economists also pay attention to the definition of education for health in connection with the quick development of the global modern idea of consumers' rights protection – consumerism. They develop theoretical and methodological basis for consumer education focused on health protection (S. Vehera, N. Prytulska). International organizations (e.g. UN Program of Development) together with European Union developed the framework of co-project “Community of consumers and civil unions” .

**Presentation of the main material.** Concerns of the state and their modern strategy are stated in the main national regulations, namely: Concept of State Social Focused Program of Physical Culture and Sport Development for 2012-2016 (2011) and Concept of State Program “Health 2020: Ukrainian Dimension” for 2012-2020 (2011). It is mainly determined by the strong negative trend, i.e. health decline of children, studying youth and students. Negative trends in modern youth health surveys are obvious not only at physical but also psychological levels, demonstrating low level of health-conscious competence.

At the same time WHO experts state that the person's health condition is determined by the following factors: individual lifestyle – by 50%; heredity – 9%; influence of the environment – 20 %; level of medical care – 10 % [1, p. 32].

So, it is necessary to pay attention to the health-consciousness education, connected with individual lifestyle.

Pedagogues-researchers support an idea of poor correspondence of the educational content and the society and labour market demands; it is not fully directed to the necessary life competences, among which the health-consciousness is the most important one. Such researchers as N. Bibik, O. Ovcharuk, O. Savchenko, L. Vashchenko, and others think that one of the ways to renew the educational content and to coordinate it with modern needs, integration with European and world educational space is orientation of educa-

tional programs to the acquisition of key competences and creation of mechanisms of their implementation. One of the most important competences at the present stage of the world development is, to our opinion, health-conscious competence.

We surveyed prospective teachers – the students of the 1st year of ***the Ukrainian, Foreign Languages and Art-Criticism Department, Dnipropetrovsk Oles Honchar National University as for their attitude to new types of motion activity***. We found out that physical condition of 100% of respondents is poor. If we don't include different chronic diseases, then the most widespread is the feeling of tiredness, dizziness, weakness, blood pressure, etc. Among 46 prospective teachers 91% would like to go in for different kinds of sports, 82% of whom prefer shaping and aerobics. 7% doesn't want to participate in any physical activity. 73 % of respondents mentioned the lack of information about health-eating and standards of minimal motion activity needed. At the same time our analysis has demonstrated that the majority of students – prospective teachers – don't have any information about educational activity of WHO and about the existence of internationally recognized standards of minimal motion activity and health eating.

We support the WHO eating habits recommendations, i.e.:

- to get energy balance and provide optimal weight;
- to limit getting energy from the consumption of fats and to change them for trans fatty acids and unsaturated fats;
- to increase consumption of fruit and other plant products, including vegetables, whole grains and nuts;
- to limit consumption of free sugar;
- to limit consumption of (sodium) salt from all the sources and provide it iodination [2, p. 4].

Following these recommendations we used three methods (focused and group interviews, questionnaire) to get information about the situation of eating habits of prospective teachers and to figure out the reaction of our respondents to the recommendations mentioned above. The results of the focused and group interviews were compared with each other and the with figures taken from the method of questionnaires.

As for the results of the research and pedagogic studies, they proved our assumption for the lack of knowledge among prospective teachers in the field of health-consciousness. 98% of respondents mentioned that they are aware of how important health-eating and motion activities are; 2% admitted their indifference to these issues.

At the same time 12 % of respondents confirmed that they have some knowledge in the field of health eating and minimal motion activity. We found interesting that the majority of young women mistakenly considered house work to be the motion activity too.

During our trainings respondents, while discussing it in the small groups, admitted that there are certain recommendations they should follow in terms of their actions in the field of physical activity. Those recommendations, being compared with the ones of WHO, surprised our respondents, since basically they coincided with the late ones. They are: 1.) Each individual is recommended to be provided with the adequate amount of physical activity in the lifelong period. For different results different forms of physical activity are needed: at least 30 minutes of regular physical exercises of average intensity during the week decrease the risk of cardiovascular diseases, diabetes, rectal cancer and breast cancer [3, p. 21]. 2.) Strengthening of muscular system can decrease the possibility of falls and improve functional status among adults. 3.) More intensive physical load is needed to lose weight [2; 3, p. 21]

We note that WHO program “Global strategy of eating habits, physical activity and health” states four main tasks: - “...to reduce risk factors of noninfectious diseases due to the absence of physical activity and wrong eating habits by means of prompt political actions to provide health protection of population; also to take an action in health-consciousness and disease-prevention”;

- to increase general awareness and understanding of needed physical activity and role of healthy eating as the main factors of well-being, positive changes of preventative measures...” [2].

When prospective teachers were asked a question about their role as teachers in the solution of the problems mentioned above, almost 91% answered that had never thought about talking to their pupils about healthy eating and motion activity. Quite predictable was positive answer of our respondents that the minimal motion activity for different age groups will differ, but they weren't able to define why. 78% of respondents were not able to divide age groups correctly. The most strange for them was the fact that people from 18 till 64 are able to have equal minimal load of physical motion activity, thus belong to the same age group.

We used convincing scientific data of WHO to develop recommendations for the motion activity of prospective teachers to use/recommend health-conscious technologies in their professional activity at different levels, i.e.:

*At the level "teacher to teacher"*

1.) adults from 18 to 64 and more need to have physical activity of average intensity during not less than 150 min per week, or do aerobic exercises of high intensity not less than 75 min per week, or equal physical activity of average and high intensity;

2.) aerobic exercises should be done in series of not less than 10 min;

3.) to get extra benefits for health adults should increase time for aerobic exercising of average intensity up to 300 min per week, or do aerobic exercises of a high intensity up to 150 min per week, or equivalent amount of physical activity of average and high intensity;

4.) muscle-strengthening exercises for the main groups of muscles should be done two or more days per week.

*At the level "teacher-to-pupil"*

1.) children and young people aged 5-17 have to take up physical activity of average and high intensity not less than 60 min per day;

2.) physical activity of more than 60 min per day provides additional benefits for health;

3.) the main part of daily exercises should be aerobic ones;

4.) physical activity of high intensity, including muscle- and bone tissues strengthening exercises should be undertaken minimum 3 times per week [3, p. 20].

**Conclusions.** To sum up we have to state the low level of the physical condition of prospective teachers studying at the Dnipropetrovsk Oles Honchar National University. Considering this, there is a necessity to improve their health and level of physical training by means of physical training development. The majority of students – prospective teachers – would like to take up such popular physical motion activities as aerobics and shaping, but this intention hadn't become physical activity.

However, respondents showed understanding of the necessity to undertake such activities, that will allow them to improve their physical condition and physical efficiency.

Modern students lack the awareness of the health-consciousness (healthy eating and standards of minimal motion activity, that contribute to the health protection), so there is a necessity to design special physical culture programs including complexes of both practical exercises with aerobic elements of round training, shaping and aerobics, and teaching theoretical aspects of health-

consciousness.

So, it is important to prepare prospective teachers to use health-conscious technologies in their professional activity. It is emphasized that it is necessary to adapt and implement international standards of minimal physical motion activity, to design and pilot minimal standards of healthy-eating as unified instruments of health-consciousness into the academic program of prospective teachers training.

### Література

1. Довгань А. І., Довгань О. А., Овчарук О. В., Оліфіра Л. М., Пужайчерета Л. М. За заг. ред. Овчарук О. В. Здоров'я дитини – здорове харчування: Навч. – метод. посіб. для вчителя навч. курсу за вибором для 5-7 кл. / Довгань А. І., Довгань О. А., Овчарук О. В., Оліфіра Л. М., Пужайчерета Л. М. – К.: Логос, 2012. – 128 с.
2. Глобальная стратегия в области режима питания, физической активности и здоровья / Доклад Секретариата, А57/9. Пятьдесят седьмая сессия Всемирной Ассамблеи здравоохранения, Пункт 12.6 предварительной повестки дня, 17 апреля 2004 г. [Режим доступа: <http://www.who.int/dietphysicalactivity/goals/ru/index.html>]. – 29 с.
3. Global recommendations on physical activity for health. / Глобальные рекомендации ВОЗ по физической активности для здоровья. [Режим доступа: [http://whqlibdoc.who.int/publications/2010/9789244599976\\_rus.pdf](http://whqlibdoc.who.int/publications/2010/9789244599976_rus.pdf)]. World Health Organization. 2010. – 60 с. (ISBN 978 92 4 459997 6).

### REFERENCES

1. Dovgan A. I., Dovgan O. A, Ovcharuk O. V. Olifira L. M, Puzhaichereda L. M. Za zah. Red. Ovcharuk O. V. Zdorovia dytyny – zdorove kharchuvannia: Navch. – metod. posib. Dlia vchytelia navch. Kursu za vyborom dlia 5-7 kl. / Dovgan A. I., Dovgan O. A, Ovcharuk O. V. Olifira L. M, Puzhaichereda L. M. – K.: logos, 2012 – 128 s.
2. Globalnaia strategiiia v oblasti rezhyma pitania, fizicheskoi aktivnosti i zdorovia / Doklad Sekretariata, A57/9. Piadesiat sedmaiesesiia Vsemirnoi Assamblei zdavoohraneniia, punkt 12.6 predvaritelnoi povestki dnia, 17 aprelia 2004 g. [Rezhym dostupu : <http://www.who.int/dietphysicalactivity/goals/ru/index.html>]. – 29 s.

3. Global recommendations on physical activity for health. / Globalnyie rekomendatsii VOZ po fizichskoi aktivnosti dlia zdorovia. [Rezhym dostupu: [http://whqlibdoc.who.int/publications/2010/9789244599976\\_rus.pdf](http://whqlibdoc.who.int/publications/2010/9789244599976_rus.pdf)]. World Health Organization. 2010. – 60 с. (ISBN 978 92 4 459997 6).

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## **ЕТИЧНІ ЗАСАДИ ПРОФЕСІЙНОЇ ВЗАЄМОДІЇ НАУКОВО-ПЕДАГОГІЧНОГО ПРАЦІВНИКА АГРАРНОГО ВИЩОГО НАВЧАЛЬНОГО ЗАКЛАДУ**

**ШИНКАРУК В.Д.**, доктор філологічних наук, професор, декан гуманітарно-педагогічного факультету Національного університету біоресурсів і природокористування України (м. Київ)

*Розкрито специфіку професійної взаємодії науково-педагогічного працівника аграрного вищого навчального закладу із різними суб'єктами освітнього процесу на засадах педагогічної етики. Виокремлено групи норм етичної поведінки педагога вищого навчального закладу стосовно професії, колег, студентів, навколишнього середовища та наукової діяльності.*

**Етика, етичні норми, етична поведінка, педагогічна етика науково-педагогічного працівника, етичний кодекс.**

*Раскрыта специфика профессионального взаимодействия научно-педагогического работника аграрного вуза с различными субъектами образовательного процесса на основе педагогической этики. Выделены группы норм этического поведения педагога высшего учебного заведения относительно профессии, коллег, студентов, окружающей среды и научной деятельности.*

**Этика, этические нормы, этическое поведение, педагогическая этика научно-педагогического работника, этический кодекс.**