The Development of Physical Training Culture of a Personality

El desarrollo de la cultura de la formación física de una personalidad

Emilia P. KOMAROVA 1; Alexander S. FETISOV 2; Tatiana V. LARINA 3; Olga V. GALUSTYAN 4

Recibido: 24/07/2017 • Aprobado: 23/08/2017

Contents
1. Introduction
2. Methodology
3. Results
4. Conclusions
Bibliographic references

ABSTRACT:
The paper is devoted to the problem of working out a health saving environment. It describes the developed program for the elaboration of physical culture of the individual to preserve and to promote health. The advantages and disadvantages of this program are analyzed. An integrated health assessment system is proposed in the paper.

Keywords: physical training culture, health saving environment, comprehensive health

RESUMEN:
El documento está dedicado al problema de la elaboración de un entorno de ahorro de salud. Describe el programa desarrollado para la elaboración de la cultura física del individuo para preservar y promover la salud. Las ventajas y desventajas de este programa son analizadas. En el documento se propone un sistema integrado de evaluación de la salud.

Palabras clave: cultura del entrenamiento físico, ambiente del ahorro de la salud, salud comprensiva

1. Introduction

Education in the modern world is undergoing significant changes (Galustyan, O.V., 2015, 2017; Fontoura F. B. B. et.al., 2016; Stošić, L. and Stošić, I., 2013; Uryadova T. et.al., 2017; Villarreal J.L. et al., 2016). Global changes in the social and economic structure, evident contradictions between the society and the educational system demand natural resources and sharp deterioration of environment due to their usage. It provides constant development, preservation and improvement of school children health support. The problem of school children health support becomes very urgent within the scope of the strategic goal. The problem of preventive work and health deflections of school children is extremely urgent due to the changes of the value system in education and its humanization, preserving health and
workability in the system of health support technology of educational process of the school.
The paper is devoted to the changes dealing with globalization of education and its constant
development. All these processes influence all spheres of personality's activity and it is
especially important to develop strategic approaches to health saving technologies in the
educational institutions. In this connection, there is a need to establish a system of education
aimed at sustainable human development, providing the possibility of participation of everyone
in solution and prevention of social, economic and environmental problems. A lot of scientists
(Dowda M. et al., 2011; Pate R. R. and O'Neill J. R., 2011, 2012; Pate R. R. et al., 1990, 2006;
Sallis J. F. and McKenzie T. L., 1991) who devoted their papers to the physical training
education suggest that physical culture and physical training are closely connected with the
health of school children. However, the problem of theoretical explanation and practical use of
health support technologies in education, training and everyday life of school children has not
been fully developed yet. This problem becomes especially important due to ecological situation
deterioration in the world. That is why the creation of health saving educational environment of
the school is urgent nowadays.

2. Methodology

It is necessary to follow the conceptual ideas of different scientific approaches by integrating
pedagogical theories for solving personality health support problem. The authors (Kakorina E.P
and Rudiakova S.E., 2011; Stefanik R., 2014) suggest that there is a close interconnection of
such tendencies in education as humanization, professionalization and fundamentalization. The
prevailing point of different points of view of Russian scientists (Aghajanian N.A., 1983; Fetisov
A.S., 2013; Kakorina E.P and Rudiakova S.E., 2011; Vinogradov P.A., 1996) is emphasis on
systemic formative character of physical training education, developing of school children'
personality and individuality based on physical culture.
The health saving educational environment of the school is considered as a combination of
social, psychological and hygienic factors as well as psychological and pedagogical conditions
based on realizing of personality's adaptive possibilities, preserving and strengthening health of
school children (Katzmarzyk P.T. et al., 1998; Pate R. R. et al., 1990; Sallis J. F. and McKenzie T.
L.,1991; Sallis J. F. et al., 1993; Taylor W. and Baranowski T., 2013). The analysis of the
research works (Aghajanian N.A., 1983; Fetisov A.S., 2013; Vinogradov P.A., 1996; Kakorina
E.P and Rudiakova S.E., 2011) revealed that in Russian school physical culture is a compulsory
subject which is taught twice a week. The curriculum consists of two parts such as physical
exercises and theoretical information. Exercises between the lessons are called "physical
minutes" which are organized during the breaks. The improved program of physical culture
included gymnastics, track and field athletics, skiing training, outdoor games, swimming. But
the lessons organization was not well planned and the equipment used was outdated.
This paper examines the problem of the health saving educational environment and gives the
description of the developed program of the formation of a personality's physical training
culture. The main goal of the program is to preserve health which in its turn leads to the
improvement of school children physical training culture which provides rational studies
organization. There are six aspects of this program:
• prophylaxis and medical inspection, detection of early health deviations;
• physical education and culture; the goal of this aspect is realized by the measures leading to
the improvement of school children' physical culture education;
• healthy lifestyle which includes rational nourishment and improvement of school children'
leisure;
• complex value of the state of life which includes systematic testing at the beginning and at
the end of academic year;
• school facilities; this aspect is developed with the purpose to provide sport gyms and
necessary training equipment;
• education; the aspect includes measures for improving, organizing and introducing theoretical information.

3. Results
This study presents the results of implementing the program of forming physical training culture of a personality aimed at saving health which leads to improvement of school children physical training culture. The participants of this study are the school children of the seventh and eighth grades (Voronezh, Russian Federation). Total amount of the participants was 173 (84 boys, 89 girls). This complex program of physical training culture of a personality on saving and strengthening the health developed by Fetisov A.S. (2013) includes health level rates which makes it possible to estimate physical level of the school children' health. This program allows to monitor blood pressure, vital capacity of the length. The results of the study are revealed in tables 1, 2, 3, 4.

![Table 1. Health level express evaluation](image)

Table 1. Health level express evaluation

<table>
<thead>
<tr>
<th>Points</th>
<th>(1)</th>
<th>(2)</th>
<th>boys</th>
<th>girls</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>more than 90</td>
<td>more than 140/90</td>
<td>less than 80/50</td>
<td>less than 50</td>
<td>90 and less</td>
<td>no exercises</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>76-90</td>
<td>131-140/81-90</td>
<td>80-89/50-54</td>
<td>55-55</td>
<td>40-45</td>
<td>91-95/ more than 120</td>
<td>to 1 or less</td>
</tr>
<tr>
<td>3</td>
<td>68-75</td>
<td>90-99/50-59</td>
<td>61-65</td>
<td>51-55</td>
<td>101-105/116-120</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>60-67</td>
<td>121-130</td>
<td>66-70</td>
<td>56-60</td>
<td>106-110</td>
<td>5-7</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>51-59</td>
<td>111-120/71-75</td>
<td>60-70</td>
<td>less than 70</td>
<td>less than 70</td>
<td>8-10</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>50 and less</td>
<td>100-105/76-80</td>
<td>more than 70</td>
<td>more than 60</td>
<td>more than 60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>more than 120/71-75</td>
<td>more than 60</td>
<td>more than 60</td>
<td>more than 60</td>
<td>more than 60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE (1) - heart rate at rest, beats per minute (BPM); (2) - blood pressure at rest, millimeter of mercury (mmHg); (3) - vital capacity of the lungs, ml/kg; (4) - height and weight index. This characteristic can be used instead of (3); (5) - previous experience of making up exercises is not less than twice a week during 20 min and more.

![Table 2. Health level express evaluation](image)

Table 2. Health level express evaluation

<table>
<thead>
<tr>
<th>Points</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>boys</td>
<td>girls</td>
</tr>
<tr>
<td>1</td>
<td>more than 12,00</td>
</tr>
<tr>
<td>2</td>
<td>11,01-12,00</td>
</tr>
<tr>
<td>3</td>
<td>10,01-11,00</td>
</tr>
<tr>
<td>4</td>
<td>9,01-10,00</td>
</tr>
<tr>
<td>5</td>
<td>8,01-9,01</td>
</tr>
<tr>
<td>6</td>
<td>7,30-8,00</td>
</tr>
</tbody>
</table>

NOTE. (6) - general endurance
Tables 1-4 contain the most informative and simple characteristics for quick determination of the health level. This level corresponds to the average of quantity of the following points: very high level - 5,0 and above; high level - 4,0-4,9; medium level - 3,0-3,9; low level - 2,0-2,9; very low level -1,0-1,9 points. Then each characteristic is considered in more details.

4. Conclusions
The analyzed data in this paper show that the development program of physical training culture in the sphere of educational environment of the school helps to preserve health of school children, its prophylactic leads to improvement of their physical state that provides rational organization of study.

The system of the health express includes level rates the complex evaluation of physical training culture of the personality helps to detect weak links in an organism for purposeful influence, to work out an individual program of improving exercises and estimate their efficiency, to prognosticate the risk of occurrence of hazardous to life diseases.
Bibliographic references


1. Faculty of Mechanical Engineering and Aerospace Engineering, Voronezh State Technical University, Voronezh. E-Mail: vivtkmk@mail.ru
2. Voronezh Institute for Educational Development, Voronezh. E-Mail: asfet-2011@mail.ru
4. Institute of Management in Economic, Ecological and Social Systems, Southern Federal University, Rostov-on-Don. E-Mail: ovgalustyan@sfedu.ru