

ANALYSIS OF THE PHYSICAL ACTIVITY OF PRIMARY SCHOOL TEACHERSGrigoniene J.J.¹, Skyriene V.^{1,2}, Margeliene N.²
Lithuanian sports university¹
Mykolas Romeris University²

Annotation. The purpose of the study - to identify the ratio of primary school teachers in physical education and sport and to establish their level of physical activity, depending on the length of teaching. The volume of the experimental sample consisted of 74 people. To conduct questionnaires designed questionnaire including 29 questions open and closed. The study found that 77.3% of primary school teachers in Kaunas with 16 to 20 years of work experience were engaged in physical activity and sports. Two - three times a week, they practiced in walking, sports games, cycling, swimming, etc., with this 4-10 hour. All respondents, regardless of their teaching experience, consider physical activity and sports as an excellent means of healing and disease prevention. According to them, they should be engaged in physical activity throughout life and children need to develop positive attitudes towards physical education from their childhood.

Keywords: physical activity, teacher, elementary school.

Introduction

In ancient time there already existed knowledge about significance of physical activity for human health. Hippocrat said that gymnastics, physical exercises, walking shall firmly enter in everyday life of everybody, who wants to maintain workability, health, full fledged and happy life. Nothing exhausts organism so much as physical inactivity.

Motion is a biological demand of organism, without satisfying of which normal human life activity is impossible. In the opinion of World health protection organization, sufficient physical activity influences positively on mood and self-respect of an individual, on good appearance and carriage, reduces obesity and hypertension, cardio-vascular diseases and early mortality. Insufficient physical activity is one of the most significant factors of chronic diseases [14]. There can be a lot of reasons of it: technical progress, increasing of quantity of cars, preference of means of transport (for example lift instead of going upstairs), spending free time, watching TV sitting at computer. Age also reduces motion activity. It is recognized that every day activity decreases in the periods of third (20-29) and sixth (50-59) decades of life [8].

Physical abilities is a number of indicators, which depend on human motion activity and condition ability to fulfill physical work. Physical abilities have trend to decrease with age. Physically passive individuals have low aerobic productivity, reduced muscular force; often it is a reason of aged people transition to "sitting" way of life [2, 3, 12].

B. Sanda et al. (2012) discovered that twice a week motion activity during minimum 1 hour influences positively on upper and lower limbs' muscles, with it not practically influencing on endurance of these muscles, is exercises lack of aerobic elements, sufficient quantity [11].

Rather often there appear objections of some researchers concerning usefulness of physical activity for individual's psychological state. The works by Yu. Fukuhava et al. prove that aged individual is bent to motion passivity and it is very difficult to make him to be physically active. Against the background of these changes psychological state also worsens [4].

Physical activity in mature period is used for maintaining of general organism's state or for treatment of certain diseases. With this purpose mature people are recommended to fulfill special exercises of their modifications. Type of training (power trainings, trainings of aerobic orientation and so on), frequency and quickness of exercises' fulfillment, their intensity shall be selected individually, basing on functional abilities of a trainee [10].

Rationally chosen kind of physical activity can safely be used by mature people, because age is not a counter indication to physical culture trainings. Regular motion activity facilitates activation of cardio-vascular and blood circulation systems' functional abilities, reduces risk of different diseases and helps to avoid worsening of organism's cognitive functions [7].

According to recommendations of sport medicine college of America and American heart association it is necessary to practice physical activity of moderate intensity for 5 times a week (during 30 minutes every time), or practice aerobic exercises of higher intensity three times a week (minimum 20 minutes every training). Realizing these recommendations one can alternate motion activity of moderate and higher intensity [5]. Besides, twice a week it is worth to practice physical activity, which facilitate maintaining (or even increasing) certain level of strength and endurance. Regular motion activity, corresponding even to minimal recommendations, increases individual's physical abilities, reduces symptoms of certain diseases and even helps to avoid some of them [5].

Healthy life style of disciples can be educated by pedagogue in the following way: rendering knowledge, formation of skills and values, example of own behavior. It means that physical activity of primary classes, teachers is an important mean of educational and academic work with rising generation, because it is not a secret that in primary classes physical culture lessons are conducted by the same teachers, who teach children to read, write and count.

In order to remain motionally active during all professional activity, school teachers shall maintain at certain level their physical state and practice healthy and active life style [13].

Nevertheless, as per data, supplied by D. Visbarayte (2006), rather significant quantity of Lithuanian pedagogues have passive attitude to physical culture and sports. In this connection there appears a number of questions: 1. Could teachers of primary classes be able prove by own example teoretical knowledge about physical activity, which thje they teach, because simply accumulated information can not become way of life and behavior? 2. Can motionally passive person attract rising generation (children) to physical activity? In other words, is we wish to educate positive attitude to physical culture and sports, shall we personally practice the same kind of activity andinfluence positively by own example on our disciples?

Purpose, tasks of the work, material and methods

The purpose of the research is to determine attitude of primary classes" reachers to physical culture and sports and their level of physical activity, depending on the period of their professional activity.

The methods and organization of the research. Main methods of the research were questioning and statistical analysis of obtained data.

For questioning we developed a questionnaire, which included 29 questions of open and closed types. With the help of it we established the level of physical activity of primary classes" teachers. The questionnaire was tested in laboratory of sociological researches of Lithuanian university of sports.

Statistical processing of data was carried out with the help of package of programs of data storing and analyzing SPSS (*Statistical Package for Social Science*) 17.0. For comparing of results of different groups of tested we used χ^2 (*chi-square*) criterion. Confidentiality of differences of mean-group data was determined by Stjudent"s t-criterion with significance level of $p < 0.05$.

For theoretical foundation of the research we fulfilled review of literature sources.

Organization of the research. Anonymous questioning, in which representatives of eight comprehensive and primary schools of Kaunas took part, was carried out in autumn 2012. The scope of experimental sample was 74 persons. Participants were selected by method of random sampling on principle of series. All they were divided into groups, depending of period of their pedagogical activity (see table 1).

Table 1.

Characteristics of the tested

Group	Period of pedagogical activity (years)	Quantity (persons.)	Quantity (%)
I	15 and less	27	36.5
II	16-20	22	29.7
III	21 and more	25	33.8

Results of the research

Human physical activity is determined by many factors. In the course of the research we analyzed: frequency and duration of primary classes teachers" motion activity practicing, preferred by them, forms of trainings, attitude to physical culture and sports.

The obtained results witness that most of pedagogues practice physical culture or sports in free time. Especially group of teachers, having period of pedagogic work from 16 to 20 years, dominates. More than 77% of them ($p < 0.05$) are motionally active (practice walking, outdoor games, bicycle, swimming etc.) (see table 1, table 2).



Fig.1. Quantity of teachers, who practice physical culture and sports, depending on period of pedagogical activity (%).

Table 2.

Weekly physical activity of teachers (hours)

Group	Indicators				
	Period of pedagogic activity	N	\bar{x}	δ	S_x
I	15 and less	27	6.02	5.33	1.03
II	16-20	22	7.42	15.35	3.02
III	21 and more	25	6.64	5.73	1.15
	Total	74	6.65	9.43	1.10

Teachers with minimal and maximal period of pedagogic activity (48.1 and 48% accordingly) find time for motion activity's practicing not less than three times a week and as a result their breathing and pulse become more frequent ($p>0.05$).

Most of the questioned (independent on period of pedagogic activity) practice physical culture and sports 2-3 times a week ($p<0.05$). This kind of activity is practically ignored by 20% of teachers with great period of pedagogic work, 9.1% - with period of 16-20 years and 3.7% with the least period of pedagogic work ($p<0.05$) (see fig. 2).

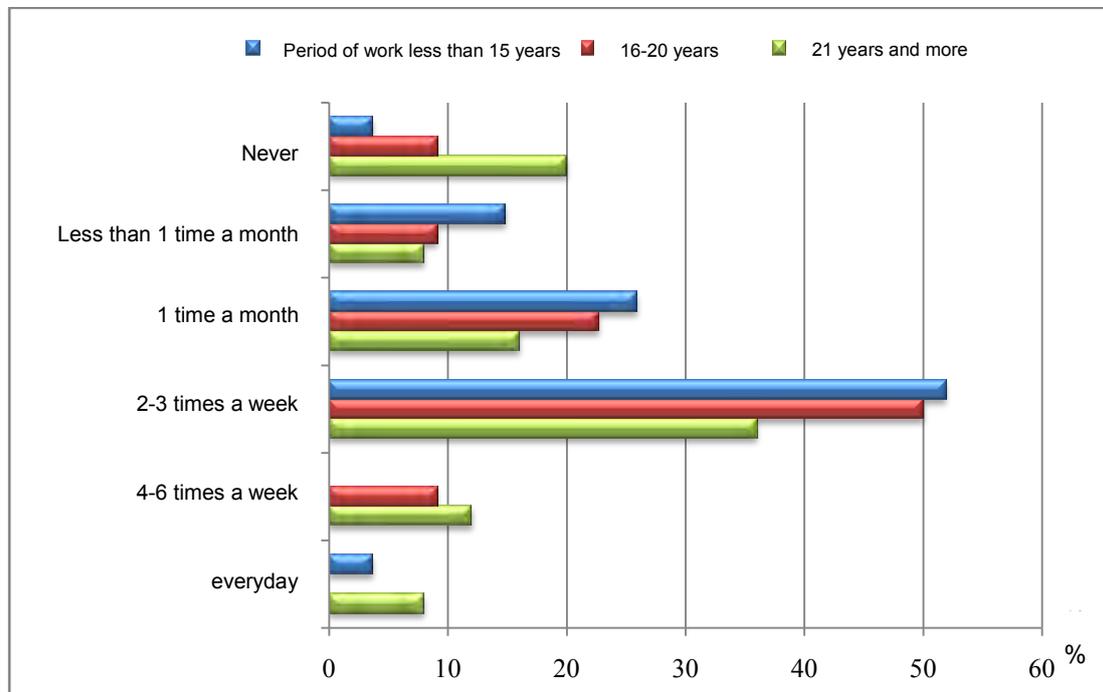


Fig.2. Frequency of physical activity of primary classes' teachers (%).

In order to improve physical education of rising generation it is necessary to know attitude of pedagogues themselves to physical culture and sports. Basing on this fact, respondents were offered questions with four variants of answers (in rank order).

The obtained data did not show any influence of period of pedagogic activity on respondents' opinion. Analysis of questioning results witness that practically all questioned, independent of their periods of pedagogic work, consider physical culture and sports an excellent mean of health improvement and prevention from diseases ($p>0.05$). In respondents' opinion physical exercises shall be practiced during all life and positive attitude to physical culture shall be cultivated to everybody since early childhood (see table 3).

Table 3.

Primary classes' teachers' opinion about physical culture and sports

Groups	Variants of answers			
	Completely agree	Partially agree	Agree but not completely	Not agree
	Physical culture and sports is the best health related mean and method of prevention from diseases			
I	81.5	18.5	0	0

II	72.7	27.3	0	0
III	72.0	28.0	0	0
Physical exercises shall be trained for all life				
I	70.4	29.6	0	0
II	68.2	31.8	0	0
III	76.0	20.0	4.0	0
Children shall be cultivated with positive attitude to physical culture since early childhood				
I	96.3	3.7	0	0
II	95.5	4.5	0	0
III	84.0	16.0	0	0

The obtained by us data contradict to the data. Supplied by Yurechko [1], who says that primary classes teachers insufficiently understand significance of physical culture for their personal self-perfection.

Studying of way of life of adult Lithuanian population showed that in the period from 1994 to 2008 percentage of inhabitants, who appraise their health as “good” or “sufficiently good” significantly increased. Increment of such persons among male population is 25% and among female – 63%, with it persons with higher educational level appraised their health in such way two times oftener than persons with not completed secondary education [5]. This fact permits to assume that among educated representatives of country's population new values began to form, among which care of own health and choice of healthy life style, with physical culture as an integral; component, are expressed.

Conclusions:

Absolutely all teachers of primary classes of Kaunas, who participated in the research, are motion active, have positive attitude to physical culture and sports and think it necessary to form such attitude to physical activity of his disciples since early childhood.

Further researches will be oriented on studying of attitude to physical activity of comprehensive schools’ pedagogues. Besides, in our opinion, it would be interesting to compare and appraise attitude to physical culture and sports of higher educational establishments’ teachers of our Republic, who train future primary and secondary classes’ teachers.

References:

1. Iurechko O. V. *Tekhnologija integrirovannogo obuchenija budushchikh uchitelej nachal'nykh klassov k vedeniu fizkul'turno-ozdorovitel'noj deiatel'nosti* [The technology of integrated education of primary school teachers to conduct sports and recreation activities], Cand. Diss., Moscow, 2003, 236 p.
2. Beswick D. A., Rees K., Ayis S. Complex interventions to improve physical function and maintain independent living in elderly people: a systematic review and meta-analysis. *The Lancet*, vol.371(9614), pp 725-735
3. Cena P. D., Blanco A. K., Garcia J. R., Barrera H. V.. Time trends in leisure physical activity and physical fitness in elderly people: 20 year follow – up of the Spanish population national health survey (1987 – 2006). *BMC public health*, 2011, vol.11, p. 799.
4. Fukukawa Y., Nakashimi C., Tsuboi S., Kozakai R. Age differences in the effect of physical activity on depressive symptoms. *Psychology and Aging*, 2004, vol.19(2), pp. 346 – 351.
5. Grabauskas V. *Health behaviour among Lithuanian adult population*. KMU, 2009, 160 p.
6. Haskel W. L., Lee I. M., Pate R. R., Powell K. E. Physical activity and public health: updated recommendation for adults from the American college of sports medicine and the American heart association. *Medicine & science in sport & exercise*, 2007, vol.39(8), pp. 1423 – 1434.
7. Heckman G., McKelvie R. Cardiovascular Aging and Exercise in Healthy Older Adults. *Clinical Journal of Sport medicine*, 2008, vol.18(6), pp. 479 – 485.
8. Jakicic J. M. The role of physical activity in prevention and treatment of body weight gain in adults. *The Journal of Nutrition*. 2002, vol.132(12), pp. 3826–3829.
9. Kardelis K., Kavaliauskas S., Balzeris V. *School physical education: Realities and Perspectives*, [Mokyklinė kūno kultūra: realijos ir perspektyvos], Kaunas, LKKA, 2001, p. 25.

10. Lovering R. M., Brooks S. V. Eccentric exercise in aging and diseased skeletal muscle: good or bad? *Journal of applied Physiology*, 2013, pp. 3 – 7.
11. Sanda B. S., Martinsen W. E., Borgen S. J. Changes in physical fitness, bone mineral density and body composition during impairment treatment of underweight and normal weight females with longstanding eating disorders. *International journal of environmental researches and public health*, 2012, vol.9, pp. 315 – 330.
12. Strohle, A. Physical activity, exercise, depression and anxiety disorders. *Journal of neural transmission*, 2009, vol.116, pp. 777 – 784.
13. Vizbaraitė D., Česnaitienė V. J. *Education. Physical Education. Sport*, 2006, vol.2(61), pp. 64-70.
14. Zuožienė, I. *Physical education and health promotion knowledge on students' physical activity* [Kūno kultūros ir sveikos gyvensenos žinių įtaka moksleivių fiziniam aktyvumui], Dokt. Diss., Kaunas, 1998, 240 p.

Information about the authors:

Grigoniene J.J.: j.grigoniene@gmail.com; Lithuanian sports university; Sporto str. 6, LT-44221 Kaunas, Lithuania

Skyriene V.: v.skyriene@gmail.com; Lithuanian sports university; Sporto str. 6, LT-44221 Kaunas, Lithuania

Margeliene N.: margeliene@mruni.eu; Mykolas Romeris University; Ateities str. 20, LT-08303 Vilnius, Lithuania

Cite this article as: Grigoniene J.J., Skyriene V., Margeliene N. Analysis of the physical activity of primary school teachers. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 2013, vol.9, pp. 20-24. doi:10.6084/m9.figshare.749692

The electronic version of this article is the complete one and can be found online at: <http://www.sportpedagogy.org.ua/html/arhive-e.html>

This is an Open Access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited (<http://creativecommons.org/licenses/by/3.0/deed.en>).

Received: 25.06.2013
Published: 30.09.2013