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THE INFLUENCE OF SECTIONAL CLASSES ON PHYSICAL CONDITION OF NINE-TEN-OLD BOYS

ВПЛИВ СЕКЦІЙНИХ ЗАНЯТЬ НА ФІЗИЧНИЙ СТАН 9–10-РІЧНИХ ХЛОПЦІВ

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Scientific, methodological sources and regulatory documents indicate trends towards a decrease in physical activity and a deterioration in the health of students in Ukraine. Over 50% of schoolchildren with physical and functional disabilities study in general secondary education establishments (GSEEs). Enhancing the level of physical activity is one of the most effective ways to improve students' health [1; 2; 4].

Unfortunately, three physical education lessons per week cover only 15–20% of the required amount of daily activity. This is not enough to ensure significant positive changes in the physical condition of children [1].

According to regulatory documents, physical education lessons and other forms of physical education and sports training aimed at increasing the level of physical activity and, consequently, physical condition are among the ways to form the health of students [2; 4].

In addition to traditional physical education and exercise programmes, new forms of physical activity are becoming increasingly popular for health promotion. In our opinion, the popular type of sports games – floorball – deserves attention, which is actively implemented in the process of physical education of primary schoolchildren.

Floorball, as a popular form of sectional classes, is successfully implemented in the practice of physical education. This is due to the spectacularity, accessibility and emotionality of this sport. Physical conditions, functional state, and physical development improve during floorball classes. Students enhance their motor skills and learn to cooperate within a team to achieve certain goals [3].

The **purpose** of the research is to compare the influence of sectional classes floorball and general physical training on physical condition of 9-10-year-old boys.

Methods of the research. Analysis and generalisation of literary sources, normative documents; pedagogical experiment; pedagogical testing; methods of mathematical statistics.

To achieve the purpose of our study, we have conducted a pedagogical experiment. The experiment involved 9–10 year old boys. The pupils of the control group (CG) were engaged in the section on general physical training (GPT), and the pupils of the experimental group (EG) attended the floorball section. There were 15 pupils in each group. Teacher of physical culture conducted sectional classes on the basis of the secondary school № 8 in Ternopil. The boys' participation in the experiment was voluntary and agreed with their parents. All participants of the experiment belonged to the basic medical group.

Organisational and methodological bases of conducting sectional floorball lessons were aimed at complex solution of educational, health-improving and educational tasks, in particular at improvement of physical development, functional state, physical condition, acquisition of motor skills in floorball, learning theoretical knowledge of floorball, increasing interest to physical activity.

In the sectional classes of GPT, the main physical qualities were purposefully developed: speed, power, speed and strength, agility and flexibility through the use of traditional means of physical education. In

addition to the means of developing basic physical qualities, various types of outdoor games, relay races and elements of sports games (volleyball, basketball, football, badminton) were practiced.

During the sectional classes, the following methods of activity organisation were used: group, frontal and circuit training methods. Methods of forming theoretical knowledge, motor skills and abilities; development of physical qualities were also used. For the development of physical qualities and formation of technical and tactical skills in floorball the game, competitive and circle training methods were used.

To compare the influence of sectional training in floorball and GPT on the physical condition of 9–10-year-old boys we tested at the beginning and at the end of the pedagogical experiment. The results show that in both groups there were statistically significant positive changes in physical development of boys (Fig. 1). Boys in the CG showed a smaller increase (2.1–7.6%) than in the EG (2.6–9.5%).

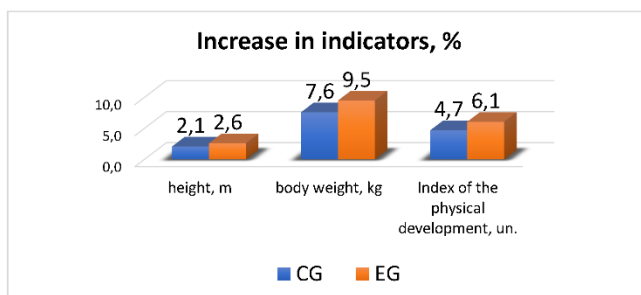


Fig. 1. Increase in indicators of physical development 9–10 year old boys during the experiment

The largest changes were in the increase in body weight (7.6–9.5%), and the smallest in the increase in height of 9–10 year old boys (2.1–2.6%). In our opinion, this change is determined by both the natural process of development of boys' organism and systematic physical exercises.

Physical fitness indicators of both groups also had positive changes (Fig. 2). In CG the increase was somewhat less (3–42.6%) than in EG (3.2–57.9%). While EG demonstrated physical qualities within the limits of good physical health, CG did not reach this level in terms of speed and endurance.

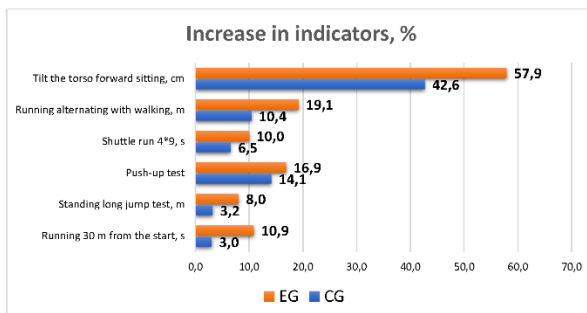


Fig. 2. Increase in indicators of physical fitness 9–10 year old boys during the experiment

Indicators of functional condition grew after the experiment in two groups (Fig. 3). In CG the increase was somewhat less (2.1–4.8%) than in EG (3.7–6.9%). Changes in indicators of functional state in CG and EG were statistically significant ($p < 0.05$) and corresponded to a sufficient and average level of physical health.

The parameters of growth of indicators of physical development, physical fitness, functional state of cardiovascular and respiratory systems in 9–10-year-old boys of EG are somewhat higher than in boys of CG. Sectional classes, both in floorball and GPT, had a positive influence on physical condition of boys. However, it should be noted that changes in physical condition of pupils who were engaged in "floorball" section were more pronounced.

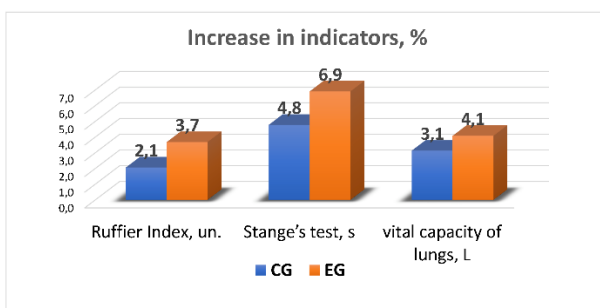


Fig. 3. Increase in indicators of functional state 9–10 year old boys during the experiment

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