

# Public Health Sector for Health Promoting Schools in Hungary

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## **Abstract:**

The objective of this paper is to show the way how public health actors were able to reach the mandatory prescription and gradual implementation of daily physical education for all school children in Hungary and how the implementation was helped by the medical professionals and by some huge projects. It is also shown that daily physical education is part of holistic health promotion in schools, which – according to the long struggle of public health actors again - is also prescription for all educational institutions. High political commitment and good intersectoral cooperation at governmental level were of utmost importance. Now our task is to give a permanent and organized professional help from the side of public health institutions and actors – as teachers are in need for it.

**Keywords:** health promoting criteria of daily physical education, holistic health promotion in schools, intersectoral cooperation

## **1. Introduction**

Physical inactivity has been identified as one of the leading risk factors for noncommunicable diseases, which are by far the primary causes of death in the world and their impact is steadily growing. Children are not immune to this burden, and effective interventions are urgently required. Several documents were there to urge physical activity. The Global Strategy on Diet, Physical Activity and Health [1] states in 49.§: „Schools are encouraged to provide students with daily physical education.” After several newer documents [2,3,4,5,6,7] the Physical Activity Strategy for the WHO European Region 2016-2025 [8] highlights the need of at least 60 minutes physical activity for children and young people and recommends that schools should provide “an appropriate number of regular physical education lessons, in line with the available scientific evidence”. “Nationwide implementation of quality physical education classes” and “legislation” is also recommended.

According to recommendations of WHO, with wide consensus and after a long struggle of several medical societies in Hungary we made daily physical education (DPE) an important goal of the National Public Health Program in 2001 [9]. As the education sector was not convinced if schools were able to organize DPE, we organized in 2001 an intersectoral application for schools (Ministry of Health, Ministry of Education, Ministry of Sports). More than 700 schools applied and this convinced the colleagues in the Ministry of Education that schools may organize DPE if they are given the missing finances. Thereafter DPE was included in the national education plan (2006), but we had to wait until 2010 when DPE became part of the Government’s Program. The new National Education Act Nr. 190 of 2011

prescribed daily physical education for all schools, and after a 4 year long gradual implementation now all students take part in DPE since September 2015. Health promoting criteria of DPE became part of the basic ruling documents of public education in 2012. After a long work of the health sector since 2003 also holistic health promotion (HHP) in all educational institutes was prescribed in 2012.

## **2. Daily physical education (DPE)**

### Health promoting criteria of DPE:

To achieve the expected health gains of DPE it must fulfill some special health-promoting criteria which we laid down together with several medical societies in 2012 [10,11]:

1. Every student must take part in daily physical education classes. Namely, the number of unexcused and excused absences must be reduced. On the one hand, this is the parents' obligation and, on the other, this applies to the doctor who, lacking in sports knowhow but wanting to be helpful and please, writes an excused note at the request of the student or parent. It is important that our medical colleagues consider the current sedentary life style that now requires a change in our thinking. For instance, a student with a musculoskeletal disorder who needs as much physical activity as possible should not be excused from physical education classes (of course, it is the physician's responsibility and right to decide otherwise in individual cases).
2. Every physical class should contain enough exercise to properly strain the students' cardiovascular and respiratory systems (indicated by: flushing, perspiration, panting) and the classes planned so that time spent by the students waiting (i.e., not moving) to take their turns be reduced to as little as possible.
3. Every physical education class should contain gymnastics including special posture correction exercises for every student for the development of biomechanically correct posture, and exercises for developing good breathing techniques. (The special posture correction exercises do not change with age and cannot be replaced with something else at any age, at most it may be supplemented with playful or diversified exercises.) The rules for protecting the spine and joints must be observed at all times. (Népeü tt, link)
4. Special attention should be given to the age-related weight bearing capacity of the spine and the joints while exercising.
5. Relaxation exercises should also be part of every student's daily physical education class (the method used for ages 1-4 varies from the others).
6. Awareness of our body and muscles during the special posture correction and relaxation exercises will intensify the effect of physical education on the general wellbeing of our body and soul. It is important, therefore, that the physical education teachers emphasize this awareness and encourage its verbal expression.
7. The physical education teachers should also impart their knowledge between the connection of physical activity and the healthy psyche and the development of the ability to learn.
8. Dance classes could also be part of the daily physical education classes, if possible. Folk dancing for classes 1-4 and folk dancing and ball room dancing for classes 5-12. These encourage healthy psychological development.
9. It is important to also teach, as part of the daily physical education, sports that the students would want to continue practicing even throughout their entire lives (i.e., lifestyle sports). The schools can help choose these sports according to their facilities and possibilities.

10. Every physical education class should include disciplined work, joyful playfulness and a sense of achievement for each student, even those of less than average physical talent. In order to achieve this, such pedagogical and psychological methods should be followed that give each student activities suited to his or her capabilities; i.e., create work and play conditions that will allow each student to experience the sense of achievement and pleasure after a job well done.
11. The physical education teacher is in a singular position to make the students understand, through their own experiences, the effect that the activities of the class have on the healthy development of their system, body and soul. For this reason, in order for health skills to be effective and be internalized by the students, it is important that it be taught as an integral part of the physical education class. Personal hygiene, showering, or other cleansing methods, after physical activities and fluid replacement are especially important topics to be included.
12. When evaluating physical education it should be done in such a way that encourages the student to take an active part. Each student should be evaluated according to his or her own capabilities and based on his or her own personal results.
13. The quality of daily physical education is best ensured if the physical education class is taught by a physical education teacher or a teacher especially trained in physical education.
14. It is important that the students become familiar with the history of Hungarian sports. That the outstanding sports figures may be a motivation for them when choosing a sport outside school.
15. In Hungary, there is still much to be done on the part of the government in improving the physical conditions of daily physical education and in replacing missing items. Since the improvement of the conditions takes time and can only be accomplished gradually, many physical education rooms may, at the moment, not be set up adequately. In these situations, it rests upon the creativity of the teaching staff and the physical education teachers to come up with acceptable solutions for daily physical education classes. Worse than the lack of a perfect location is the lack of daily physical exercise.

All the above health-promoting criteria for daily physical education are contained in the national education rulings. Now is the time for the public health sector to ensure that these criteria are met and are part of all school children's daily life.

Project to enhance the quality of DPE:

To enhance the quality of DPE the Government launched a huge project in 2013, which was realized through the Hungarian School Sport Federation (HSSF).

HSSF produced seven very important methodological publications to help PE-teachers in using new methods according the health promoting criteria of daily physical education. All Hungarian schools (ca. 3800) were given these publications, and nearly 8.000 teachers took part in postgraduate courses to practice these new PE-methods.

HSSF in cooperation with the Cooper Institute (USA) created a new national measurement tool (NETFIT) for PE teachers to monitor physical fitness of schoolchildren from 10 to 18 years. Online input of data and online analysis of results was made available for the public [12]. The devices for NETFIT were given to all Hungarian schools (more than 3800 schools). The use of this measurement tool is compulsory according to the Decree No. 20/2012 of the Ministry for Human Capacities.

HSSF together with the education, sports and health sector (all in the Ministry for Human Capacities) produced a strategy to further development of quality daily physical education.

Professional review in education was ceased in Hungary since 1985. Now it is reintroduced as monitoring and supervision, while graduate and postgraduate education of PE teachers is also renewed – all these are tools to enhance the quality of DPE.

#### In or outside of gyms?

We do not have enough gyms for all school classes to have their DPE in them. At the beginning we could hear quite often, that we should have waited with the prescription of DPE until we have built enough gyms for that. We communicated intensively the opposite opinion: not the gym, but the physical activity is needed daily for the children. As part of the above project, all schools were given a special methodologic publication „Alternative sport-games” in which HSSF introduced 87 types of interesting and enjoyable sport-games to be used outside of the gym. Today we know that we have won this communication-game.

Of course it is needed to increase the number of gyms and the Government is building new gymnasiums and swimming pools and improving equipments of DPE – but nevertheless PE teacher’s creativity is also needed for PE classes outside the gymnasium.

#### Monitoring of DPE:

The new national measuring tool “NETFIT” was developed by HSSF in cooperation with the Cooper Institute (USA) on a correct scientific basis and with protection of the spine. This is an appropriate tool for monitoring DPE. NETFIT is a yearly compulsory measurement for PE-teachers, for all 10-18 years old school-children. It has four profiles:

- Body composition
- Aerobe fitness
- Musculoskeletal fitness
- Flexibility

In May 2015 NETFIT was measured at the first time (623.026 schoolchildren took part with 13.543 teachers); in May 2016 it was measured on 651 431 school-children by 14.685 teachers; in 2017 it was measured on 662.501 schoolchildren by 17.724 teachers; and in 2018 it was measured on 644.524 children by 19.410 teachers.

Main statements of the analysis after the measurements are [12,13]:

- Overweight and obese children were between 25,8 % (2015) and 26,4 % (2018). (BMI was calculated and bioimpedance was measured by using OMRON BF511.)
- Worst results were seen in:
  - Progressive aerobic capacity endurance test (PACER-test) – in health zone were only 57,6 % of the children in 2015 and in 61,1 % of the children in 2018.
  - Trunk lift test – in health zone were only 51 % of the children in 2015 and .
- We could detect development of PACER test in 2015: girls developed in PACER-test by 10%, especially those who already have taken part in DPE; but PACER test showed a slight development according summarized data also.

We see that we have to give more attention to:

- better motivation of children in participating in DPE, especially with better methods for girls;
- better internalization of healthy eating;
- better and more effective use of special posture correcting exercises.

### **3. Holistic health promotion (HHP) in schools**

#### Interministerial planning and prescription of HHP in schools:

In 2001, Healthy Nation Public Health Program [9] and the Public Health Interministerial Board was launched with the Government Resolution No. 1066/2001 (VII.10.). In 2003, corresponding to the Parliamentary decision No. 46/2003. (IV.16.), and to the Public Health Interministerial Board's decisions the Ministry of Health in consensus with other competent departments (Ministry of Education, Ministry of Children, Youth and Sport, Ministry of Finance) made the plan of holistic health promotion (HHP) in schools, which – mainly because of lacking political commitment from the side of education – was not implemented until 2010. In 2010 the Program of Government, in 2011 the Act Nr. 190 on National Education, and in 2012 the Decree No. 20/2012 of the Minister for Education prescribed the institutionalized implementation of holistic school health promotion in Hungarian educational institutions. In 2015 three huge projects gave significant professional assistance and motivation to schools to further their daily work in health promotion. For this result an efficient intersectoral cooperation was needed, which worked on the basis of the “giga-ministry”: the Ministry of Human Capacities containing 8 human sectors (health, education, sport, higher education, youth and family, social integration, culture, church and civil society).

#### HHP: what does it practically mean for schools?

Holistic health promotion means a holistic, whole school approach where health promotion has to be part of the every day life of the school. There are four main health promoting tasks for schools to do in their daily work - with participation of the whole school, of parents and the public environment:

- I.) Healthy eating - potentially based on local food products;
- II.) Daily physical education fulfilling health promotion criteria and other forms of physical activity;
- III.) Appropriate pedagogic methods (including also the use of arts) to enhance mental health;
- IV.) Improving health literacy and health competencies of the children.

#### Follow up of HHP:

We have to follow up the effects of HHP with measurements of the 4 health promoting tasks:

- for healthy eating we have the results of National Institute of Pharmacy and Nutrition, and the results of HBSC;
- for daily physical education we have the new national measuring tool “NETFIT” (see above)
- for mental health we have HBSC and ESPAD
- for health literacy we have no significant measurement till now, but in a new project we just start to produce it.

#### Social gains of HHP:

The key strategic goal of HHP is to reach for all school-children a better physical, mental and spiritual health; better academic achievement; better social inclusion; better social well-being; primary prevention of NCDS. All participating sectors (health, education, sport, higher education, youth and family, social integration, culture, church and civil society) co-benefit from an efficient implementation of HHP, the gains for each are obvious:

- Health: primary prevention of most NCD-s, better physical, mental, spiritual and social well-being and health for all children.
- Education: better health for all children = better academic achievements, more effective pedagogic work of teachers, better social inclusion, less drop-out, less aggressivity.
- Sport: better basis for later sportsmen.
- Higher education: better health, better academic achievements.
- Youth and family: better health of children needs much cooperation from parents and families - this means shared tasks.
- Social integration: children from poor social background can be reached mostly in the schools; better health=better social integration.
- Culture: mental health promotion of the children is served by the application of arts in the school-days.
- Church and civil society: churches have schools, where health promotion is also prescribed; better health=better academic achievements.

#### **4. Our tasks now in giving professional help for teachers:**

Between 2012 and 2015 there were 3 huge governmental projects to help the implementation of HHP: one for DPE (see above) and two other projects producing materials on some health topics mainly for teachers. Now we have a newer project in which we produce materials on all other health topics and not only for teachers but also for children – using gamification through the modern ICT devices.

We have still to work hardly to organize the official helping network from the public health side – as schools need our professional help continuously, not only during our projects [18,19]. After the appropriate legislation in the education sector we have now a new challenge: teachers are highly loaded with their work, so building the “whole school approach” in their daily routine work is not easy. The new quality management in education and the ongoing whole renewal of the national education are important helping structures and factors for us.

#### **5. TAKE HOME MESSAGES:**

The key lessons we learnt may be helpful for other countries also:

- The highest political commitment was needed, in our case this was the commitment of the prime minister and of the leader of education sector, since 2010. Commitment of the health sector is naturally needed, and this was always given since 2001.
- Good cooperation between sectors was helped by the giga-ministry for human resources since 2010 (Ministry for Human Capacities with 8 sectors: health, education, sport, higher education, youth and family, social integration, culture, church and civil society).
- Persistent struggle of civil medical societies in cooperation with the civil society of physical education teachers was also an important basis since 1995.
- Agrar-sector’s work to strengthen the social functions of agriculture was in good interaction with several goals of public health.

We had several facilitating factors from the international professional sites:

- The lessons learnt from the European Network for Health Promoting Schools, now Schools for Health in Europe [14,15,16].
- The supporting works of WHO European Region in several fields: healthy eating, physical activity, mental health, health literacy, “whole school, whole child, whole society” approach in Health 2020 [17].

## 6. Conclusion

Commitment and insistent work of several medical professionals was the starting point, which was followed by the highest political commitment. Since 2010 governmental cooperation has been working effectively through the Ministry of Human Capacities responsible for health, education, sport, youth, family, social integration, culture, church and civil society. Our next tasks are the organization of the continuous professional help from the public health institutions to the teachers; and the motivation of teachers to change their routine and accustomed pedagogic methods.

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