

APPROACHING THE CRITICAL PROBLEMS OF MOTOR SKILLS DEVELOPMENT

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Abstract: *The harmonious and correct physical development is an important objective of physical education and sport, and it is considering that during the childhood we can exert favourable influence on growth and body development. The statistics are alarming about the children overweight and obesity. We proposed and we managed to determine the loss of weight and change the body mass index of overweight and obese children from the kindergarten Ag. Dometios Lefkosia Cyprus, who participated into an experiment with supplementary moving games, and also to awareness their parents concerning the importance of sport, healthy lifestyle, and the systematic habit of movement.*

Key words: *overweight, obesity, physical activity.*

1. Introduction

The lack of movement make the present period to be characterized by increase the number of overweight or obesity, the alarming growth of specific disease inactivity, attracting all more children and young people today to negative models of alcohol, tobacco, drugs, excessive use of computers, television [1].

The European Association has recently published statistics that are more and more alarming: the number of cases of obesity has doubled since 1980; in 2008 there were 1.5 billion people aged 20 years or over who had weight than normal, over 200 million men were obese and nearly 300 million women were obese; 65% of the world population lives in countries where overweight and obesity kills more people

than underweight; girls are more susceptible to weight gain, obesity risk being aged 10-12 years [7].

A trend of our times, harmful to human health is physical inactivity, determined, and among other things by the technological progress recently recorded [2]. Thus, children prefer computer games to outdoor games; most young people seek for various forms of entertainment often avoiding sport activities, while adults carry a type of work involving too little physical effort because we live in century of speed, in which most problems are solved by computer. Lack of time and especially designed places are also causes of sedentariness [4].

Inactivity is a major problem, with strong effects not only on physical but also on mental health, tonus, and efficiency in work [7]. The human body is designed to move

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and, in its absence, the normal physiological processes are disturbed, sometimes to total disruption [4].

Children are the most active segment of the population, but only 60% of young people aged between 15-24 years and only 41% of adults aged between 25-39 years practice sport once a week. From the age of 12, physical activity decreases by 3% per year at boys and 7% per year at girls [8].

Budget cuts in many countries, affecting physical education and sports programs, cannot justify the downfall of this area of activity, covering 64% of young people in Africa, 57% in Southeast Asia, 56% in Latin America, 47% in Eastern Europe, 35% in Western Europe [8].

The lack of exercise is more dangerous than smoking, [3]. In Hong Kong, the mortality caused by sedentariness has exceeded, in 1998, the number of victims of smoking.

The practice of a physical activity at least once a week increases life expectancy by 40%, shows a different study, made by a team of specialists at the Karolinska Institute in Stockholm. "Exercise, even those practiced occasionally, reduces risks of cardiovascular disease," [5].

People who exercise more in their leisure time seem biologically ten years younger than sedentary people, according to a study conducted by researchers at King's College London [3].

Researchers believe that physical activity prevents a natural process called oxidative stress, which affects and kills the cells and thus contribute to aging. The researchers believe that moderate physical activity, performed for 30 minutes five times a week can help to maintain health and slow the aging of the body.

Usually, overweight people want to avoid physical activity because they get tired easily and fear to get sick. This fact can be explained, by comparison, that they are in the situation of people with normal weight,

who have to carry permanently, and unnecessarily, a backpack with many extra kilograms [5].

2. Impact of Physical Activity in the Treatment of Obesity

Studies performed by various researchers have confirmed the effectiveness of associating diet with exercise [5].

Recent studies have shown that physical activity is the key-factor in achieving and maintaining weight loss, 95% of people have regained the lost pounds if they have not included exercise in the weight loss program. Exercise sessions of 10 minutes duration, performed 4 times a week can signify a program with good results for obese patients [6].

Physical activity has a psychological effect of improving the state of well-being, by replacing sedentary habits which lead to frequent consumption of snacks, and also by acting to some extent as a factor in diminishing the appetite, people who do exercise respect on longer term a hygienic-dietary program [1], [6].

The calorie intake and sedentariness are major factors contributing to higher levels of overweight and obesity. Several studies have revealed the following: weight loss is acquired more easily by changing food attitudes combined with an exercise program; exercise is more effective in preventing overweight and obesity, than in their treatment [2],[5].

However, consumers perceive food as more important in preventing weight gain than exercise.

3. Operational research approach

In this paper we proposed **the following objectives:**

Attracting overweight and obese children from the kindergarten Aghios Dometios Lefkosia Cyprus to an additional program

of motor games to decreased the body mass index.

Awareness of overweight and obese children and their parents concerning the importance of sport, healthy lifestyle, and systematic movement habit of training.

3.1. Research hypothesis

We believe that by involving of overweight and obese children, in preschool age, into supplementary moving games programs, we get weight loss and awareness of overweight and obese children and their parents concerning the importance of sport, healthy lifestyle, and systematic movement habit of training.

3.2. Research stage

After we measured the height and the weight of the children, we calculated the body mass index. We identified a total of 24 overweight and obese children, from the Aghios Dometios Kindergarten of Lefkosia Cyprus that have been subject of our experiment.

Our research continued with design and implementation of opinion questionnaires for children, and the overweight and obese children's parents. The purpose of the questionnaires was to determine overweight and obese students' and their parent's attitudes, and to move it. The questionnaire was applied separately, under the guidance of the teacher and director of the kindergarten.

After that we started with an additional program of movement games, with the parental consent, which included activities performed by 3x / week of 30 min. From the program objectives we glean: to attract children to movement games, weight loss and body toning, education the systems of perception, transmission, analysis and control of rhythm and tempo, the development of the general and specific

motor skills, formation the habit of movement for fun and relaxation, consolidation / improving the specific skills of an healthy lifestyle.

The means used movement games, gym exercise to influence locomotors system, outdoor activities, walking, hiking, rollerblading and bike rides, water games, contests and competitions in the form of game, shot and catch games with different balls.

We made the final measurement and evaluation of the children from our experiment, the last stage of our research consisted of final data collection, the analysis of the results, and statistical processing of data and then formulation of conclusions.

3.3. Results

3.3.1. The opinion questionnaires results

The opinion questionnaires applied on children and parents have highlighted interests which we are checked in our experiment, and further are inspired us our conclusions for future research:

Children expressed their pleasure to play in the yard: 84.42%, in the school yard 83.49%, in park 78, 82%.

They prefer to play: with other children 65.73%, with brothers and sisters 22.12%, with parents 19.94%.

Children's favorite forms of exercise are many, the first places are the dynamic games (tag, hopscotch) 80.04%, ball games 76.32%, swimming and bathing in the sea by following 52.02% and gymnastics 28, 35 %.

Among the concerns of home, first are watching TV: 68.22%, sports, ballet and music: 71.96%.

The second opinion questionnaire was completed by 337 parents of children from the 4 kindergartens. From these 183 (54.30%) said they are employees and 154 (45.7%) freelancers.

Most of those who responded, 329 (97.63%) consider that the movement are important in the harmonious development of their children.

About outdoor effect of sports, 83.09% know its role in increasing resistance to disease and strengthen health.

About maintaining normal body weight, parents share their views: 163 (48.37%) give prime importance to the movement, and 148 (43.92%) give more importance to healthy diet.

If their children practice or not supplementary sport activities 198 (61.68%) responded affirmative and 139 (43.30%) have infirmed.

3.3.2. The measurements results

After the weight and height measurements from the children from Kindergarten Aghios Dometios in Lefkosia Cyprus we calculated body mass index and selected the following data:

Table 1

Number of obese, overweight, normal and underweight children

No. crt.	Category	Kindergarten children
1.	Obese	4
2.	Overweight	20
3.	Normal	45
4.	Underweight	39
5.	Total	108

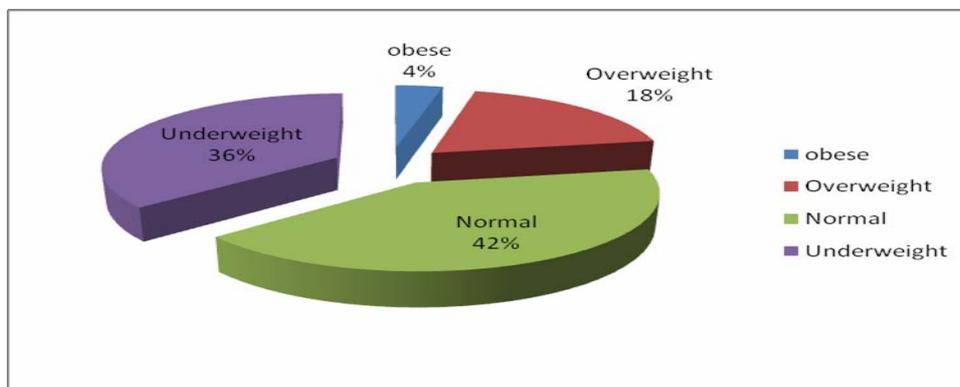


Chart 1. *Percentage distribution of obese, overweight, normal and underweight children*

3.3.3. The experimental research results

After applying the program of movement games to the 24 overweight and obese

children from kindergarten 1, we have obtained the following results:

Is obvious and substantial the weight loss of obese and overweight children in the experimental group mean: 4.08 kg.

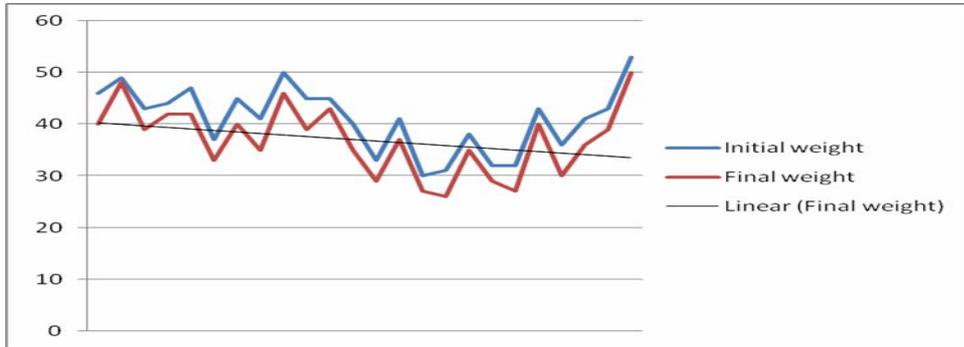


Chart 2. *Initial and final weight at the obese and overweight children*

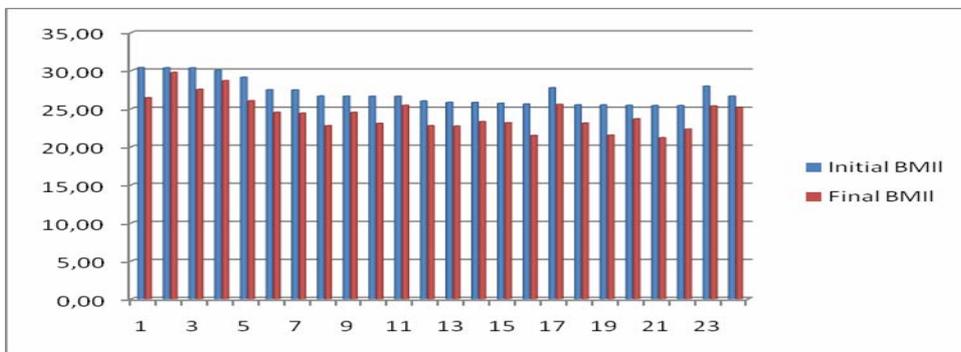


Chart 3. *Initial and final BMI at the obese and overweight children*

Table 2

The initial and final averages of weight and BMI

	Weight (Kg)	BMI
Initial average	41,04	27,11
Final average	36,96	24,35

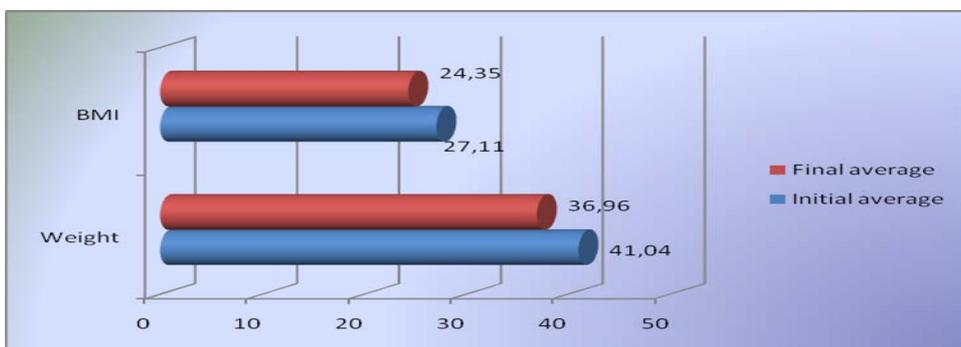


Chart 4. *Initial and final BMI and weight average at the obese and overweight children*

4. Conclusions

The conclusions are focused on the hypothesis paper that confirms, namely:

- As a result of statistics in kindergartens in Ag. Dometios Lefkosia Cyprus it was established that 4 children were found obese, 20 overweight, 45 normal and 39 underweight.
- After the experiment all the children participants was found in loss weight, those who had more interest for the movement have lost weight further.
- Also the body mass index (BMI) decreased proportionally with the weight loss of 24 children.
- Losing weight in overweight and obese children with an average of 4.08 kg and BMI of 2.75.
- Losing weight with 6 and 5 kg, of 4 and 6 children are the result of participation in all activities of movement with a strong interest.
- Losing insignificant weight of 1 and 2 Kg of only 3 children, confirm our hypothesis about the importance of participation in movement activities, except for children who were involved, very little, in activities practiced.
- Decrease of body mass index (BMI) in the same proportions reinforces the conclusions provided by the analysis of body decrease.

Proposals

- Increase the number of hours of physical education and sport at the preschool age children.
- To find new methods to getting children interested in movement in leisure activities and encouraging parents to support their children over.
- Awareness of children and parents about healthy food regime.

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