

Situation of Physical Development 4-5 Years old Preschoolers in Hanoi City, Vietnam

Nguyen Thi Yen

PhD student, Vietnam Sports Science Institute

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Abstract

In the education system, preschool is the first level of education that lays the foundation for physical, intellectual, emotional, and aesthetic development, and orients the formation of children's personalities; at the same time promoting the learning and development process in the next stages. Recognizing this importance, the Party and State have constantly paid attention to investing in facilities and quality for this level of education. However, the height growth rate of Vietnamese people is still slower than in other countries in the world and the region. Therefore, in addition to proper nutrition, preschools across the country need to develop many methods that have a profound impact on cognition to improve children's physical health. In this study, the author will focus on assessing the status of physical education at 4-5 years old preschool in Hanoi City, Vietnam. On that basis, specific goals are discussed for the research subjects, to contribute to improving the physical health of 4-5-year-old preschool in the coming time in Hanoi city.

Keywords— Situation; Education; Physical development; Hanoi; Vietnam.

I. INTRODUCTION

Preschool age - the first "golden" period of life, physical development needs to help children form and develop basic motor habits such as crawling, walking, running, jumping, throwing, and climbing... Habits Exercise habits not only help children save energy when moving but also help the development of internal organs more completely. In addition, in this period, the goal of physical development in preschool children is also to develop physical qualities such as agility, dexterity, and endurance, and at the same time to form movement habits to help children develop physical activities. Children are more aware of movement to exercise and maintain their health in the future. To develop optimal height, besides genetic factors, in the first years of life, including preschool children, good nutrition combined with an appropriate physical training regimen, a clean living environment Consequently, fewer diseases will help children have the opportunity to develop their maximum adult height [4], [6], [8]. Today, modern science has confirmed that the natural need for movement of the human body is the biological premise, the natural basis of the appearance of all forms of movement, including physical activities and sports [7].

II. RESEARCH OVERVIEW

2.1. New approach to sports for children in the world

In some developed countries, they have begun to gradually develop standards for sports training conditions for preschool children, such as There must be a gym to ensure warmth in winter and cool in summer. summer, the temperature is stable; Gyms or playgrounds must be safe, clean, and dust-free to avoid infection during children's movement and breathing...[3], [5], [10].

"Sport" today has been viewed and evaluated from many different angles, in which sport for everyone in the world is changing rapidly. Each country in the world has a different view and assessment of the influence of "sports for all" on the development policy of national sports [5], [10], [16].

Recently, Singapore launched a training program for preschool teachers and coaches to provide basic motor skills to 18-month-old children; The British government has introduced several major reforms in investment in sports, in which two major issues stand out: the first is to promote the development of "sport for all", "sports for all". the masses" and secondly to attract young people's participation in sports activities;

The New Zealand Government during the 1980s-1990s implemented a sports program called "KiwiSports", which attracted the participation of children aged 9-12. This program was developed with the participation of children aged 9-12. The aim is to increase the number of children participating in outdoor activities such as swimming, picnicking, cycling... The results of this Program were summarized in 1996, with 78% of New Zealanders participating in it. outdoor sports activities have increased significantly, including for both adults and children; China, with its excellent achievements in the recent Olympic arena, has a way of classifying the concept of sport into two different fields. The first is that "sports" often focuses on the development of high-performance sports, and competitive sports; and secondly, "physical activities" often focus on physical training and sports activities, mass activities, health training, and serving social groups.

Malaysia proposed in 1985, with the main goal of focusing on developing sports for all Malaysians, to become a healthy, united, highly disciplined nation, where people have many opportunities to participate. participate in physical activities and let Malaysia's sports industry develop stronger and stronger.

Canada and many other countries associate fitness and health education with personal and social development; Develop a variety of elective physical training and sports content during intra-curricular hours and develop voluntary extracurricular sports activities [9].

In Norway in 2012, the Multi-Factor Model (increasing physical activity, reducing autistic behaviors, and improving meals) with the measure: 10 minutes of weekly exercise increases the sense of exercise and stimulates exercise. practice including time at school and free time. Implementation: 20 months (program name is Adolescent Health (implemented at 2165 schools aged 11) in the curriculum for the physical development of children.

In the Netherlands with the FATaintPHAT model 883 kindergarten students participated. Exercises increase physical activity for students, reduces autism, and improves good eating habits. 15 minutes for each lesson, 8 lessons in 10 weeks to help preschoolers improve their health and develop physically.

In Belgium in the 2006-2007 school year, there were 1589 kindergarten and primary school students participating in a program to strengthen advocacy activities for children. The program adds extra-curricular physical activities for students to develop physically.

Spain in 2013 implemented a program of 2062 children 3-5 years old. Supplementing in the curriculum related to eating habits, and types of physical exercise for preschool

children to develop stature and physical strength for children.

In Germany, a study of 1119 children aged 7-8 years old participated in a program consisting of 29 classroom sessions, 2 training sessions a day, and 6 home exercises, with regulated TV viewing time and carbonated drink consumption to strengthen physical development for children [16].

In Japan, since kindergarten, sports competitions take place for children from 24 months. Fitness expert Len Almond at the British Heart Association's National Physical Training Center said that young children should go to the gym from a young age, but should not do weights because football players train hard at their age. As a child experienced leg pain later in life [16].

2.2. Related research projects in Vietnam

Le Anh Tho (1995), Research using some folk movement games in physical education for 4-year-old preschool children; Includes folk games for physical development for preschoolers. Post-experiment results show that post-experiment has a good effect on the physical development of preschool children [14].

Dang Hong Phuong (2000); Research on teaching methods of basic motor exercises for older preschool children (5-6 years old); The research results have developed four groups of methods, including Developing new motor concepts, reviewing old motor concepts, perfecting motor concepts and checking and evaluating the performance of motor exercises. The book has had a good impact on the physical and mental development of preschool children (5 - 6 years old) [11].

Lam Thi Tuyet Thuy (2007); Research on the physical development of preschool children in some central provinces. Research results, the author has identified tests to assess the fitness level of preschool children with 5 criteria and proposed measures that can improve the effectiveness of physical development for preschool children in some provinces and regions. The middle is: Increase General activities with learning purposes. physical education into 2 activities in 1 week with the method of organizing children to practice in many small groups (teams), applying the form of rotation, increasing the use of motor games, and folk games to develop physical fitness for children [15].

Nguyen Thi Ha (2019), Research on the innovation of the Physical Education program in training students majoring in Early Childhood Education at Hanoi National University of Education 2 towards improving career capacity, through the integration of 2 chapters The program follows the direction: taking the profession as a

motivation to improve the effectiveness of PE, taking the content of PE to combine with equipping students with knowledge and skills to implement PE activities for preschool children, overcoming the limitations of two general PE subject programs and PE subjects belong to the professional knowledge block, contributing to improving professional capacity for students specializing in early childhood education [7]. Nguyen Hung Dung (2021), Research on the physical development of 5-6-year-old preschool children in Dong Thap province, has developed a plan to apply 30 games into teaching practice. Post-experiment results show that 30 games have a better impact on the achievement of physical assessment tests of the experimental group than the control group after the experiment.

Thereby, it has been proved that the use of movement games in the thesis helps students in the experimental group develop good physical qualities such as speed, endurance, flexibility, and dexterity. Besides physical development, children's bodybuilding had positive growth in height and BMI, and the number of malnourished and obese students in the experimental group decreased significantly after the experiment [25].

In addition, the results of scientific research

Tran Minh Thuan (2008); Studying the effect of aerobic exercise on the development of morphology and physical strength for 5-year-old children in preschool in Ho Chi Minh City; Do Vinh, Lam Thi Tuyet Thuy (2007); Nutritional status of preschool children (3-4) years old in Ho Chi Minh City by weight/age and height/age [18]; Vu Duc Van, Dao Thi Tu Anh (2011); Physical status of preschool children (3-6 years old) in Hai Phong city [17]; Tran Thanh Phuong, Trinh Huu Loc (2016); Effects of exercise exercises on the development of physical fitness for 5-year-old boys at Bong Sen Kindergarten, My Tho city, Tien Giang province [12].

The research works on preschool physical education, by domestic and foreign authors, are a valuable source of material, a theoretical and practical basis oriented towards solving the research tasks and objectives. topic.

III. RESEARCH METHODS

3.1. Methods of analyzing and synthesizing documents

This is the method that most of the research works use to systematize the knowledge related to the research area. In the process of researching, collecting, synthesizing, and analyzing documents, documents of the Party and State, legal documents of the sector on the work of physical education in schools; books, journals, scientific documents, and research results of domestic and foreign

authors and scientists related to physical education in schools. The main sources of materials are collected from the libraries of the Universities of Sport and Sport and the Universities of Sport and Education, the Library of the Institute of Sports Science, and the National Library of Vietnam.

3.2. Methods of Interview and Investigation

An interview is a form of conversation, the questions must be prepared in advance and asked in a certain order, and the answers need to be publicly recorded.

In interviews, people use modern technical means such as cameras, recorders, or video recorders to retain research materials.

The survey is also a type of interview, a method that uses several questions in series to be asked to several research subjects to collect their opinions on a certain issue. Responses may be written or oral and recorded by the investigator.

3.3. Pedagogical observation method

Is a method of perceiving research objects in the process of education and reformation without affecting that process, or in other words, a purposeful approach to a certain educational phenomenon to acquire and collect specific data, documents, and events that characterize the evolution of that phenomenon.

Within the scope of the topic, we have directly observed the process of PE at preschools and studied the current plan, content, and methods of the current preschool PE program.

In the process of observing and approaching the research object of the topic, the pedagogical processes have been recorded from both sides: the teacher and the learner to serve as a basis for determining the factors and conditions that ensure the teaching and learning process. application of physical exercises to research subjects.

The selected subjects for pedagogical observation are preschool teachers, physical education teachers (teachers), and preschool children in preschools in Hanoi city, through basic observation (observation with the program). schedule, plan, and take notes); Internal observation (observation when the teacher directly teaches during PE class); Public observation (observation when learners and teachers know there is an observer and the observed content).

3.4. Methods of biomedical examination

Including key methods such as (1) Blood pressure; (2) Pulse pulse; (3) Standing height (cm); (4) Weight (kg); (5) BMI index; (6) Single reflex- Body reaction speed (ms)

3.5. Experimental method of pedagogy

The pedagogical experiment is a method of actively and systematically studying an educational phenomenon to determine the relationship between educational impact and educational phenomenon that needs to be studied under controlled conditions. The experimental method allows researchers to deeply understand the nature of the educational phenomenon to discover new things, but this is a method that requires elaborate preparation in terms of both theories as well as work and site. technical equipment during the experiment.

3.6. Statistical Mathematical Methods

The information and parameters collected during the implementation of the topic will be processed and analyzed by mathematical and statistical methods, ensuring the scientific, reasonable, and logical quality of the entire content of the study rescue.

IV. RESEARCH RESULTS AND DISCUSSION

4.1. Situation of physical development of 4-5-year-old preschool children in Hanoi city

Selection of criteria, test to assess the physical development of preschool children 4-5 years old in Hanoi

Determining the principles of selecting criteria, testing, and assessing the physical development of 4-5-year-old preschool children in Hanoi city

To select the criteria, test application in testing and assessing the physical development of preschool children 4-5 years old in Hanoi city, through reference to relevant

Table 1: Summary of indicators and tests to assess physical development 4-5-year-old preschool children in Hanoi city

| TT | Chỉ tiêu, test | Tác giả | | | | |
|----|--------------------------------------|-----------------|-------------------------|---------------------|--|-----------------------|
| | | Le Anh Tho 1999 | Lam Thi Tuyet Thuy 2007 | Nguyen Duc Van 2011 | Tran Thanh Phuong and Trinh Huu Loc 2016 | Nguyen Hung Dung 2021 |
| 1 | Pulse (times/minute) | | + | | | |
| 2 | Maximum blood pressure (mmHg) | | + | | | |
| 3 | Minimum blood pressure (mmHg) | | + | | | |
| 4 | Height (cm) | | + | | | + |
| 5 | Weight (kg) | | + | | | |
| 6 | BMI | | | | | |
| 7 | Balance standing on 1 foot (seconds) | | + | | + | |
| 8 | Sit forward and bend your body (cm) | | + | | + | |

documents, the selection process criteria, the evaluation tests must follow the following 3 principles:

Principle 1: Selected criteria and tests must comprehensively assess the physical development of research subjects.

Principle 2: Indicators and tests must ensure reliability and informality on research subjects.

Principle 3: Selected criteria and tests must have evaluation criteria. The organizational form is simple, suitable for practical conditions; easy to organize tests and easy to classify, easy to score. To select the criteria, test the application in checking and assessing the physical development of preschool children 4-5 years old in Hanoi according to the following steps:

Step 1: Synthesize the criteria, and test to assess the physical development of preschool children 4-5 years old through relevant resources as well as through sharing with experts and direct observation of physical education work in preschool. young.

Step 2: Determine the feasibility of the tests (through indirect interviews with questionnaires).

Step 3: Determine the reliability and informality of the selected tests through interviews.

Step 4: Test directly on the target audience to study the criteria, the test is selected based on analyzing the changing characteristics of the child's morphology, function, and motor qualities. The criteria, test to assess the physical development of preschool children 4-5 years old in Hanoi city are presented in Table 1.

| | | | | | | |
|----|--|---|---|---|---|---|
| 9 | Thrust in place (cm) | | + | + | + | + |
| 10 | Long throw with 1 dominant hand (m) | | + | | | + |
| 11 | Long throw with 2 hands (m) | | | + | + | |
| 12 | Throw the ball away | | | | | |
| 13 | Throw the ball on target | | | | | |
| 14 | Hit and catch the ball with 2 hands (times/minute) | | + | | | |
| 15 | Toss the ball with 2 hands into the bucket (fruit) | | | + | | |
| 16 | Zigzag (seconds) | | | | + | |
| 17 | Run 10m (seconds) | + | + | + | | + |
| 18 | Run 80 or 100m (min) | | | | + | |
| 19 | Sandbag throw (points) | + | | | | |
| 20 | Pick up marbles (points) | + | | | | |
| 21 | Answer the question (points) | + | | | | |

Note: Biomedical indicators from No. 1-6 comply with Circular No. 14/2013/BYT

From approaching the use of indicators and tests of recent studies, allowing to synthesize and systematize 21 indicators, tests, and references used to test and evaluate the physical development of preschool children 4-5 years old in Hanoi city, presented in Table 2.

Table 2: Results of the interview to select criteria, test to assess the physical development of 4-5-year-old preschool children in Hanoi city (n = 30)

| No | Test | Very important | | Important | | No opinion | | Not important | | □□ count | □□ board | P |
|-------------------|----------------------------|----------------|-------|-----------|-------|------------|-------|---------------|------|-------------|-------------|--------|
| | | n | % | n | % | n | % | n | % | | | |
| Biomedical | | | | | | | | | | | | |
| 1 | Standing height (cm) | 26 | 86.67 | 1 | 3.33 | 1 | 3.33 | 2 | 6.67 | 97.8 | 55.48 | <0.001 |
| 2 | Weight (kg) | 26 | 86.67 | 1 | 3.33 | 2 | 6.67 | 1 | 3.33 | | | |
| 3 | BMI | 3 | 10 | 5 | 16.67 | 7 | 23.33 | 15 | 50 | | | |
| 4 | Quiet pulse (times/minute) | 23 | 76.67 | 3 | 10 | 2 | 6.67 | 2 | 6.67 | | | |
| 5 | Blood pressure (mmHg) | 22 | 73.33 | 3 | 10 | 2 | 6.67 | 3 | 10 | | | |
| 6 | Blood (HC, BC, Hb) | 3 | 10 | 5 | 16.67 | 7 | 23.33 | 15 | 50 | | | |
| 7 | Heart function index (HW) | 3 | 10 | 5 | 16.67 | 7 | 23.33 | 15 | 50 | | | |
| 8 | Vital capacity (ml) | 2 | 6.67 | 7 | 23.33 | 6 | 20 | 15 | 50 | | | |
| 9 | Single reflection (mb/sec) | 27 | 90 | 1 | 3.33 | 1 | 3.33 | 1 | 3.33 | | | |

| | | | | | | | | | | | | |
|-----------------|---|----|-----------|---|-----------|---|-----------|----|-------|-----------|------|------------|
| 10 | Complex reflex (mb/sec) | 9 | 30 | 6 | 20 | 7 | 23.3 3 | 8 | 26.67 | | | |
| 11 | Tapping test (times/10 seconds) | 5 | 16.6 7 | 7 | 23.3 3 | 8 | 26.6 7 | 10 | 33.33 | | | |
| Physical | | | | | | | | | | | | |
| 12 | Balance standing on 1 leg (gy) | 25 | 83.3 3 | 1 | 3.33 | 1 | 3.33 | 3 | 10 | 105. 3 | 59.7 | <0.00 1 |
| 13 | Sitting folded body (cm) | 23 | 76.6 7 | 1 | 3.33 | 3 | 10 | 3 | 10 | | | |
| 14 | Thrust in place (cm) | 28 | 93.3 3 | 0 | 0 | 1 | 3.33 | 1 | 3.33 | | | |
| 15 | One-handed long-throw (m) | 19 | 63.3 3 | 7 | 23.3 3 | 2 | 6.67 | 2 | 6.67 | | | |
| 16 | 2-handed long-throw (m) | 18 | 60 | 7 | 23.3 3 | 3 | 10 | 2 | 6.67 | | | |
| 17 | Hit and catch the ball with two hands (ball/1 minute) | 22 | 73.3 3 | 3 | 10 | 3 | 10 | 2 | 6.67 | | | |
| 18 | Run on a zigzag (gy) | 3 | 15 | 8 | 40 | 8 | 40 | 1 | 5 | | | |
| 19 | Run 10m (seconds) | 28 | 93.3 3 | 1 | 3.33 | 0 | 0 | 1 | 3.33 | | | |
| 20 | Run 80 or 100m (min) | 5 | 16.6 7 | 4 | 13.3 3 | 6 | 20 | 15 | 50 | | | |
| 21 | Sandbag throw (points) | 4 | 13.3 3 | 5 | 16.6 7 | 6 | 20 | 15 | 50 | | | |
| 22 | Pick up marbles (points) | 2 | 6.67 | 7 | 23.3 3 | 7 | 23.3 3 | 14 | 46.67 | | | |

(Source: Survey results from the thesis)

Determining the reliability and informality of pedagogical-fitness tests to assess the physical development of preschool children 4-5 years old in Hanoi city.

Determine the reliability of the test

The reliability of the test is determined by the degree of agreement between the results of the tests on the same experimental object under the same conditions. Therefore, to assess the reliability of the pedagogical tests that have been selected and screened for both ages (4 and 5 years old), the retest method is applied. The interval between the two tests was 15 days, under similar conditions.

The subjects mobilized for the assessment of the reliability of the pedagogical-fitness tests were randomly selected at the age of 4 to be 60 children (30 boys, 30 girls) and at age 5 to be 60 children (30 children). boys, 30 girls) of 2 preschools among sampled preschools in Hanoi city.

Results between two replicates of the test were processed by correlation analysis; The correlation

coefficient between the two replicates is also the reliability coefficient of the tests.

The results of data processing are shown in Table 3.5-3.6, showing that the selected tests achieve the necessary reliability, with the correlation coefficient from tight to very tight ($r \geq 0.8$).

Determine the informality of the tests

According to statistical theory, only tests with reliability $r \geq 0.8$ or higher will ensure the reliability to include in the assessment of informality. Because there is no central factor as a basis to determine the predictability of the fitness assessment tests of preschool children, the study applies the method of factor analysis.

This common factor forms a new independent variable whose values are calculated by multiplying the values of the original variables in the group by the factor coefficient. The values of this new variable are the factor score [2], [15]:

$$F_i = w_1x_1 + w_2x_2 + w_3x_3 + \dots + w_kx_k$$

F: is the estimate of the value of the factor factor

When entering data processing software, to conduct factor analysis, each test is considered an independent variable (or original variable).

The factor analysis process to determine the factor informality goes through many procedures, of which the two most important ones are:

Determine the common factor representing all fitness tests (independent variables). This common factor is valid as a central factor. These factors are also referred to as physical variations.

Determine the correlation between the tests (original variables) with the common factor. The correlation coefficient between the tests and the variables represents their relationship to the kernel. Thus, these correlation coefficients are used as notification coefficients [2].

By convention, tests are considered to be sufficiently informed when the message coefficient $r > 0.4$ [2]. Thus, the tests that are included in the determination of the informality are sufficient for the notification threshold with $r > 0.8$; Presented in Table 3.

Table 3: The results of the test of the communicativeness of the pedagogical tests assessing the development of physical condition of 4-5-year-old preschool children in Hanoi city

| No | Tests | Boys | Girls |
|-----------------------------|---|--------|--------|
| Children 4 years old | | | |
| 1 | Balance standing on 1 foot (seconds) | 0.833 | 0.877 |
| 2 | Sitting folded body (cm) | 0.843 | 0.859 |
| 3 | Thrust in place (cm) | 0.867 | 0.865 |
| 4 | One-handed long-throw (m) | 0.842 | 0.847 |
| 5 | Long throw with 2 hands (m) | 0.846 | 0.884 |
| 6 | Hit and catch the ball with two hands (ball/1 minute) | 0.843 | 0.859 |
| 7 | Toss the ball with 2 hands into the bucket (fruit) | 0.867 | 0.865 |
| 8 | Run fast 10m (seconds) | -0.834 | -0.868 |
| 5 year olds | | | |
| 1 | Balance standing on 1 foot (seconds) | 0.873 | 0.877 |
| 2 | Sitting folded body (cm) | 0.843 | 0.859 |
| 3 | Thrust in place (cm) | 0.867 | 0.865 |
| 4 | One-handed long-throw (m) | 0.862 | 0.834 |
| 5 | Long throw with 2 hands (m) | 0.846 | 0.884 |
| 6 | Hit and catch the ball with two hands (ball/1 minute) | 0.853 | 0.859 |
| 7 | Toss the ball with 2 hands into the bucket (fruit) | 0.867 | 0.865 |
| 8 | Run fast 10m (seconds) | -0.834 | -0.868 |

(Source: Survey results from the thesis)

4.2. Actual situation of physical development of 4-5-year-old preschool children in Hanoi city

From the results of expert interviews on the selection of criteria, the tests used to assess the physical development of preschool children 4-5 years old in Hanoi include:

- Biomedical indicators:
- Standing height (cm);
- Weight (kg);
- Quiet pulse (Times/minute);
- Blood pressure (mmHG);

Single reflex-response to locomotion (ms)

Note: Calculate BMI through standing height index and weight

Pedagogical-fitness tests.

Balance standing on 1 foot (seconds)

Sit forward bending the body (cm);

Thrust in place (cm)

One-handed long-throw (m);

Long throw with 2 hands (m);

Toss the ball with 2 hands into the bucket (fruit);

Hit and catch the ball with 2 hands (balls/min);

Run fast 10m (second).

The results of the survey on the physical development of 4-year-old preschool children in Hanoi, presented in Table 4, show that:

For biomedical indicators:

The blood pressure and pulse of boys and girls develop according to the rules, following biological values; with maximum blood pressure from 100 ± 8.16 mmHg to 100.17 ± 8.13 mmHg; Minimum blood pressure from 60 ± 8.16 mmHg to 60.17 ± 8.13 mmHg, pulse from 99.63 ± 11.42 mmHg to 99.58 ± 11.51 mmHg [1].

For height: Average height for boys is 105.16 ± 3.39 cm; the average height for girls is 105.18 ± 3.40 cm; The average height of 4-year-old boys and girls in Hanoi city is equivalent to the WHO (World Health Organization) standard published in 2020, with the height parameter of boys is $103.3 \text{ cm} \pm 2D$ and that of girls is $102.7 \text{ cm} \pm 2D$ [19].

For weight: Boys weigh on average 17.01 ± 1.94 kg; average weight for girls is 17.8 ± 2.86 kg; The average weight of 4-year-old boys and girls in Hanoi city is slightly higher than the WHO standard, with the weight parameters of boys being $16.3 \text{ kg} \pm 2D$ and girls being $16.1 \text{ kg} \pm 2D$

Through the measurement parameters of height and weight of 4-year-old preschool boys and girls in Hanoi city, BMI is in the normal range: from 20.04 ± 3.54 to 20.67 ± 3.13 .

Motor response – single reflex (ms): Test to determine motor capacity through reaction speed of children: Good class $K < 160$ ms; Fair grade $180 > K > 160$; Medium grade $200 > K > 180$; Weak type: $220 > K > 201$; Poor type $K > 220$ ms. The results of the survey on motor responses of 4-year-old preschool boys and girls

in Hanoi city have K from 429.36 ± 167.1 to 423.82 ± 200.82 , all of which are poor [13].

For pedagogical-physical fitness tests:

Balance standing on 1 foot (second): the results show that the balance ability of 4-year-old preschool boys and girls in Hanoi city is 5.12 ± 2.80 s and 5.34 ± 2.44 s; According to the classification of survey results with measured values, the ability to balance standing on one leg of 4-year-old preschool children in Hanoi city is poor (< 10 seconds); According to the research results of Lam Thi Tuyet Thuy, compared with 4-year-old urban preschool children in the Central region: boys are 8.17 ± 2.09 seconds, girls are 5.62 ± 0.38 seconds, then 4-year-old preschool children in Hanoi city worse in boys and equal in girls [13], [15];

Sitting flexed body (cm): the plasticity through sitting flexion test of 4-year-old boys and girls is 5.83 ± 1.72 cm and 5.88 ± 1.74 cm; compared with 4-year-old urban preschool children in the Central region: boys are 2.04 ± 1.85 cm, girls are 1.77 ± 1.64 cm, then 4-year-old preschool children in Hanoi city are better;

On the spot (cm): The results of the physical examination of boys and girls 4 years old are 55.45 ± 19.16 cm and 53.77 ± 9.39 cm; compared with 4-year-old urban preschool children in the Central region: boys are 84.12 ± 11.55 cm, girls are 81.65 ± 12.97 cm, then 4-year-old preschool children in Hanoi city are worse off in both boys and girls;

One-handed long throw (m): One-handed long throw of a 4-year-old boy and girl in Hanoi ranges from 2.20 ± 0.82 m to 2.26 ± 0.82 m; compared with 4-year-old urban preschool children in the Central region: boys are 4.58 ± 0.59 m, girls are 5.62 ± 0.47 m, 4-year-old preschool children in Hanoi city are worse.

Long throw with two hands (m): The long throw with two hands of 4-year-old boys and girls in Hanoi city is 1.62 ± 0.57 m and 1.87 ± 0.28 m; compared with 3-4-year-old urban preschool children in the Central region: boys are 2.17 ± 0.46 m, girls are 2.56 ± 0.35 m, then 4-year-old preschool children in Hanoi city are worse;

Smashing and catching the ball with 2 hands (balls/min): The achievement of hitting and catching the ball with 2 hands of 4-year-old boys and girls in Hanoi city ranged from 14.44 ± 3.22 balls/minute to 14.52 ± 2.34 balls/minute; compared with 4-year-old urban preschool children in the Central region: boys are 9.12 ± 5.89 fruits/minute, girls are 9.99 ± 4.51 fruits/minute, then 4-year-old preschool children in Hanoi city are better;

Tossing the ball with two hands into the bucket (fruit): The achievement of four-year-old boys and girls in

Hanoi from 1.92 ± 1.66 to 2.03 ± 1.56 ; Compared with urban preschool children in the Central region: boys are 2.37 ± 1.34 fruits, girls are 2.44 ± 0.89 fruits, then 4-year-old preschool children in Hanoi city are worse.

10m fast run (second): The 10m running achievement of 4-year-old boys and girls in Hanoi city ranges from 3.94 ± 0.42 s to 4.01 ± 0.41 s; Compared with urban 4-year-old preschool children in the Central region: boys are 3.22 ± 0.23 seconds, girls are 3.16 ± 0.37 seconds, then 4-year-old preschool children in Hanoi city are worse.

The survey results on the physical development of 5-year-old preschool children in Hanoi, presented in Table 5, show that:

For biomedical indicators:

Blood pressure and pulse of 5-year-old boys and girls in Hanoi city develop according to the rules, under biological values; with the maximal blood pressure of 100.51 ± 7.91 mmHg and 100.19 ± 7.88 mmHg; Minimum blood pressure is 60.57 ± 8.03 mmHg and 60.47 ± 7.98 mmHg, a pulse is 99.63 ± 11.42 mmHg and 99.58 ± 11.51 mmHg.

For height: 5-year-old boys in Hanoi average 106.57 ± 3.2 cm; average height for girls is 106.62 ± 3.01 cm; The average height of 5-year-old boys and girls in Hanoi city is lower than WHO standards: 106.7 cm ± 2 D for boys and 106.2 cm ± 2 D for girls

For weight: The average weight of boys is 18.83 ± 1.91 kg; the average weight for girls is 18.01 ± 1.74 kg; The average weight of 5-year-old boys and girls in Hanoi city is slightly higher than WHO standards: 16.3 kg ± 2 D for boys and 16.1 kg ± 2 D for girls.

Through the measurement parameters of height and weight of 5-year-old preschool boys and girls in Hanoi city, BMI was found to be in the normal range, from 21.04 ± 2.17 to 21.67 ± 3.13 .

Response to locomotion – single reflex (ms): The results of the survey on the motor response of 5-year-old boys and girls in Hanoi city have K from 197.0 ± 8.55 to 196.97 ± 8.17 , which is in the average category.

For pedagogical-physical fitness tests:

Balance standing on 1 foot (second): the results show that the balance ability of 5-year-old boys and girls in Hanoi city is 5.31 ± 1.70 s and 5.07 ± 1.27 s; According to the classification, with measured values, the balance ability of 5-year-old children is poor (< 10 seconds); Compared with 5-year-old urban preschool children in the Central region: boys are 8.87 ± 4.90 seconds, girls are 8.54 ± 6.95 seconds, then 5-year-old preschool children in Hanoi city are worse. If compared with the ability to balance standing

on one leg of 5-year-old boys at Bong Sen Kindergarten, Tien Giang is 8.04 ± 0.67 seconds, than 5-year-old preschool boys in Hanoi city are also worse;

Sitting flexed body (cm): the plasticity through sitting flexion test of 5-year-old boys and girls in Hanoi city from 7.55 ± 1.79 cm to 7.48 ± 1.82 cm; Compared with 5-year-old urban preschool children in the Central region: boys are 2.31 ± 4.27 cm, girls are 2.80 ± 2.93 cm, 5-year-old preschool children in Hanoi city are better. If compared with the result of sitting and bending the body of 5-year-old boys at Bong Sen Kindergarten, Tien Giang is 2.20 ± 1.28 cm, then 5-year-old preschool boys in Hanoi city are also better [12], [15];

On the spot (cm): The achievement of 5-year-old boys and girls in Hanoi city is 57.30 ± 19.35 cm and 55.37 ± 18.9 cm; compared to 5-year-old urban preschool children in Central: boys are 91.85 ± 16.15 cm, 91.79 ± 10.29 cm for girls, 5-year-old preschool children in Hanoi city are worse. If compared with the results of the spot bounce of 5-year-old boys at Bong Sen Kindergarten, Tien Giang is 86.56 ± 6.33 cm, than 5-year-old preschool boys in Hanoi city are also worse; compared to Kindergarten children 5 years old. In Cao Lanh age, Dong Thap province, with the in situ results of 96.19 ± 12.03 cm for boys and 90.31 ± 1.94 cm for girls, 5-year-old preschool children in Hanoi City are also worse.

Long throw with one hand (m): The achievement of one-handed long throw of 5-year-old boys and girls in Hanoi city is 2.34 ± 0.83 m and 2.35 ± 0.84 m; Compared with urban 5-year-old preschool children in the Central region: boys are 620 ± 114 m, girls are 4.63 ± 11.4 m, 5-year-old preschool children in Hanoi city are worse.

Two-handed long-throw (m): The 2-hand long throw of a 5-year-old boy in Hanoi is 1.84 ± 0.34 m and a girl is 1.84 ± 0.34 m; Compared with the results of the 2-hand long throw of the 5-year-old boys at Bong Sen Kindergarten, Tien Giang, which is 4.75 ± 0.27 cm, the 5-year-old preschool boys in Hanoi city are also worse [12];

Smashing and catching the ball with two hands (balls/min): The record of hitting and catching the ball with two hands of 5-year-old boys and girls in Hanoi city is 15.39 ± 2.78 balls/minute and 14.84 ± 2.90 balls/minute; compared with 5-year-old urban preschool children in the Central region: 16.36 ± 6.82 fruits/minute for boys, 13.05 ± 6.93 fruits/minute for girls, 5-year-old preschool children in Hanoi city are better;

Toss the ball with 2 hands into the bucket (fruit); The achievement of tossing the ball into the bucket of 5-year-old boys and girls in Hanoi city is 2.18 ± 1.55 and 2.08 ± 1.48 balls; Compared with urban preschool children in Central region: boys are 2.37 ± 1.34 fruits, girls are

2.44±0.89 fruits, then 5-year-old preschool children in Hanoi city are worse [69].

Fast 10m (seconds): The achievement of 10m fast running of 5-year-old boys and girls in Ha Noi city is 3.72±0.28s and 3.70±0.29s; compared with 5-year-old urban preschool children in the Central region: boys are 2.65±0.33s, girls are 2.94±0.30s, then 5-year-old preschool children in

Hanoi city are worse; Compared with the 10m sprint of boys at Bong Sen Kindergarten, Tien Giang at 5 years old, which is 2.96±0.50 seconds, 5-year-old preschool boys in Hanoi city are also worse. The physical development of 4-5-year-old preschool children in Hanoi city is presented in Table 4-5.

Table 4: Actual situation of physical development of 4-year-old preschool children in Hanoi city

| No | Expense, test | Boy (n=124) | | | | Girl (n=120) | | | | t | P |
|----|---|-------------|----------|------------|------|--------------|----------|------------|------|------|-------|
| | | \bar{X} | δ | $M\bar{X}$ | Cv | \bar{X} | δ | $M\bar{X}$ | Cv | | |
| 1 | HA Max | 100 | 8.16 | 1.02 | 0.08 | 100.17 | 8.13 | 1.05 | 0.08 | 0.12 | >0.05 |
| 2 | HA Min | 60 | 8.16 | 1.02 | 0.14 | 60.17 | 8.13 | 1.05 | 0.14 | 0.12 | >0.05 |
| 3 | Pulse (times/minute) | 99.63 | 11.42 | 1.43 | 0.11 | 99.58 | 11.51 | 1.49 | 0.12 | 0.02 | >0.05 |
| 4 | Height (cm) | 105.16 | 3.39 | 0.67 | 0.06 | 105.18 | 3.40 | 0.7 | 0.06 | 0.02 | >0.05 |
| 5 | Weight (Kg) | 17.01 | 1.94 | 0.24 | 0.09 | 17.48 | 2.96 | 0.38 | 0.14 | 1.14 | >0.05 |
| 6 | BMI | 24.04 | 3.54 | 0.44 | 0.15 | 20.67 | 3.13 | 0.4 | 0.15 | 5.51 | <0.01 |
| 7 | Motor response (ms) | 429.36 | 167.1 | 20.89 | 0.39 | 423.82 | 200.82 | 25.93 | 0.47 | 0.16 | >0.05 |
| 8 | Balance standing on 1 foot (seconds) | 5.12 | 2.80 | 0.35 | 0.39 | 5.34 | 2.44 | 0.32 | 0.46 | 3.71 | <0.01 |
| 9 | Sitting folded body (cm) | 5.83 | 1.72 | 0.22 | 0.22 | 5.88 | 1.74 | 0.22 | 0.22 | 0.16 | >0.05 |
| 10 | Thrust in place (cm) | 55.45 | 19.16 | 2.4 | 0.42 | 53.77 | 9.39 | 1.21 | 0.17 | 3.03 | <0.01 |
| 11 | One-handed long-throw (m) | 2.20 | 0.82 | 0.1 | 0.37 | 2.26 | 0.82 | 0.11 | 0.36 | 0.39 | >0.05 |
| 12 | Long throw with 2 hands (m) | 1.62 | 0.57 | 0.07 | 0.35 | 1.87 | 0.28 | 0.04 | 0.15 | 3.02 | <0.01 |
| 13 | Hit and catch the ball with two hands (ball/1 minute) | 14.44 | 3.22 | 0.4 | 0.22 | 14.52 | 2.34 | 0.3 | 0.16 | 0.15 | >0.05 |
| 14 | Toss the ball into the bucket (fruit) | 1.92 | 1.66 | 0.21 | 0.86 | 2.03 | 1.56 | 0.2 | 0.77 | 0.36 | >0.05 |
| 15 | Run fast 10m (seconds) | 3.94 | 0.42 | 0.05 | 0.11 | 4.01 | 0.41 | 0.05 | 0.1 | 0.89 | >0.05 |

(Source: Survey results from the thesis)

Table 5: Status of physical development of 5-year-old preschool children in Hanoi city

| No | Expense, test | Boy (n=158) | | | | Girl (n=154) | | | | t | P |
|----|--|-------------|----------|------------|------|--------------|----------|------------|------|------|-------|
| | | \bar{X} | δ | $M\bar{X}$ | Cv | \bar{X} | δ | $M\bar{X}$ | Cv | | |
| 1 | HA Max | 100.51 | 7.91 | 0.63 | 0.08 | 100.19 | 7.88 | 0.63 | 0.08 | 0.36 | >0.05 |
| 2 | HA Min | 60.57 | 8.03 | 0.64 | 0.13 | 60.47 | 7.98 | 0.64 | 0.13 | 0.11 | >0.05 |
| 3 | Pulse (times/minute) | 90.39 | 3.2 | 0.26 | 0.04 | 90.73 | 3.52 | 0.28 | 0.04 | 0.89 | >0.05 |
| 4 | Height (cm) | 106.57 | 3.2 | 0.26 | 0.03 | 106.62 | 3.01 | 0.24 | 0.03 | 0.14 | >0.05 |
| 5 | Weight (Kg) | 18.83 | 1.91 | 0.15 | 0.11 | 18.01 | 1.74 | 0.14 | 0.1 | 0.87 | >0.05 |
| 6 | BMI | 21.04 | 2.17 | 0.17 | 0.12 | 21.02 | 2.18 | 0.15 | 0.09 | 0.84 | >0.05 |
| 7 | Motor response (ms) | 197.0 | 8.55 | 0.68 | 0.04 | 196.97 | 8.17 | 0.66 | 0.04 | 0.03 | >0.05 |
| 8 | Balance standing on 1 foot (seconds) | 5.31 | 1.7 | 0.14 | 0.32 | 5.07 | 1.27 | 0.1 | 0.25 | 1.4 | >0.05 |
| 9 | Sitting folded body (cm) | 7.55 | 1.79 | 0.14 | 0.24 | 7.48 | 1.82 | 0.15 | 0.24 | 0.34 | >0.05 |
| 10 | Thrust in place (cm) | 57.3 | 19.35 | 1.54 | 0.34 | 55.37 | 18.9 | 1.52 | 0.34 | 0.88 | >0.05 |
| 11 | One-handed long-throw (m) | 2.34 | 0.83 | 0.07 | 0.35 | 2.35 | 0.84 | 0.07 | 0.36 | 0.1 | >0.05 |
| 12 | Long throw with 2 hands (m) | 1.84 | 0.34 | 0.03 | 0.18 | 1.84 | 0.34 | 0.03 | 0.18 | 0.1 | >0.05 |
| 13 | Hit and catch the ball with two hands (balls/1min) | 15.39 | 2.78 | 0.22 | 0.18 | 14.84 | 2.9 | 0.23 | 0.2 | 1.67 | >0.05 |
| 14 | Toss the ball into the bucket (fruit) | 2.18 | 1.55 | 0.12 | 0.71 | 2.08 | 1.48 | 0.12 | 0.71 | 0.57 | >0.05 |
| 15 | Run fast 10m (seconds) | 3.72 | 0.28 | 0.02 | 0.08 | 3.70 | 0.29 | 0.02 | 0.08 | 0.01 | >0.05 |

(Source: Survey results from the thesis)

V. CONCLUSIONS

Fitness is the quality of the human body that can be used to perform something in learning and sports. Physical development is a process of changing the shape and biological function of the human body. , is the sum of the morphological features of an organism, which

characterize its maturation process at all stages of development.

During the first 5-6 years, children are characterized by vigorous development of all organs and organ systems of the body. Children are born with inherited biological characteristics. These characteristics form the basis for later physical and psychological

development, and the determining factors from the first months of a child's life are the environment and upbringing.

Preschool age (children from 3 to 6 years old): A favorable period for children to acquire and consolidate necessary skills.

Children at this age grow up quickly, feel thinner, and lose the round, chubby look that they had in kindergarten.

About biomedical indicators

Blood pressure is the basis for assessing the health status of each person's heart. Blood pressure is expressed in two numbers: systolic pressure and diastolic pressure.

A child's blood pressure readings depend on several factors such as the child's age, height, and gender, and it is common for girls to have higher blood pressure than boys. Moreover, at different times of the day, the child's blood pressure will also have certain changes. In addition, if the child is happy, the child is excited, or when the child is worried about something, the blood pressure can also change. The child's blood pressure also partly assesses the child's health status. Below is a table of normal blood pressure readings for children (mmHg) by age [1]:

Newborns from 1 to 12 months: The normal blood pressure reading is 75/50 mmHg, the highest level that can be reached is 100/70 mmHg.

Children from 1 to 5 years old: The normal blood pressure reading is 80/50 mmHg, the maximum value achieved is 110/80 mmHg.

Children about 6-13 years old: The normal blood pressure reading is 85/55 mmHg, the highest blood pressure can reach 120/80 mmHg.

Children aged 13 - 15: Have an average blood pressure of 95/60 mmHg, the highest blood pressure reading is 104/70 mmHg.

Adolescents aged 15-19 years: The mean blood pressure reading is 117/77 mmHg and the maximum value is 120/81 mmHg.

About the child's height and weight

According to nutrition experts, in the newborn stage, children need to be monitored for both height and weight monthly, and in the older stage, parents can monitor them every year or half a year. This will help parents better understand the child's development and easily detect abnormalities in the child's development and growth such as malnutrition or overweight, stunting.

bones, to improve the way to take care of the baby as well as to have timely treatment.

The standard height and weight of Vietnamese children are often lower than in other countries in the world. Many people believe that the cause is due to the baby's genetics and physical condition, but according to many studies, these development indicators are also due to living habits and nutrition that are still not enough to meet the child's needs. Therefore, parents need to have appropriate promotion methods to help their children get the best development. If weight cannot be controlled well, over time it will greatly affect the development of many organs of the body, such as:

If the child is too thin, the child's arms will not have strength, the brain will not develop, and the eyes will be blurred...especially for young children, the impact will be even more obvious. Therefore, mothers need to change their diet properly, providing the necessary nutrients for their children. In addition, regularly letting children participate in sports activities, and playing outdoors will also help a lot in stimulating the digestive system, making them hungry and craving more.

For overweight and obese children, if are not intervened early, they will be at risk of cardiovascular diseases, diabetes, blood pressure, etc., and low self-esteem with friends. If your child is overweight, at this time, the mother should cut back on fatty, sweet, and starchy foods, and instead have meals with lots of green vegetables, fruits, etc., which provide abundant fiber for the child. In particular, encouraging children to practice sports every day is a must to ensure their health and shape in the future.

Body mass index

Body mass index (BMI) is a calculation based on height and weight that helps determine if a person is at a normal weight, underweight, overweight, or obese.

BMI does not directly measure body fat, but BMI can be a relative measure of body fat. Furthermore, BMI is associated with the risk of metabolic disease or various diseases caused by being underweight or obese. Body mass index measures a person's weight. BMI is calculated based on height and weight according to the formula: $BMI = \frac{\text{Weight}}{(\text{Height} \times \text{Height})}$. Where a person's weight is in kilograms, and height is in meters. For example 1.7m tall, 65kg weight, $BMI = 65 \div (1.7 \times 1.7) = 22.49 \text{ kg/m}^2$.

According to the classification of the Asian Diabetes Association (IDI & WPRO), the BMI of Asians between 18.50 - 22.9 kg/m² is normal weight. BMI less than 18.5 is underweight, from 23 to 24.9 is overweight,

and 25 or more is obese. And BMI according to the international classification (WHO) is under 18.5 is underweight, 18, 5-24.9 is normal, 25-29.9 is overweight, and 30 or more is obese. The above number accurately measures body weight in most adults over 19 years of age. However, this index does not apply to people with muscular bodies (eg athletes, bodybuilders), pregnant women, the elderly, and people with loss of muscle mass. In children aged 5-19 years, the interpretation of BMI is sex- and age-specific based on the World Health Organization (WHO) standard table [19].

Low BMI indicates low body weight. Lack of nutrients, vitamins, and minerals can cause several conditions such as Bone loss; Decreased immune function; Iron deficiency anemia. Lowering blood pressure in Vietnam has doubled in obese and overweight children in the past 10 years. In just 10 years, the rate of overweight and obesity among school-age children (5-19 years old) nearly doubled (8.5% in 2010 to 19% in 2020).

Obesity is recognized by the World Health Organization (WHO) and the American Medical Association as a chronic disease that requires long-term management and treatment because it causes many dangerous complications such as medical conditions. heart disease, diabetes...Research published in 2018 on NCDs, eating, and nutrition in Vietnam shows that Vietnamese people's lifestyle has changed a lot in recent years, such as being less active, on a diet with a lot of salt, eating a lot of starch, fat, drinking a lot of soft drinks, eating fewer vegetables.

Survey results on the physical development of preschool children 4-5 years old in Hanoi concerning biomedical indicators:

Blood pressure, a pulse of boys and girls develops according to the rules, following biological values;

Height: Boys and girls in Hanoi are equivalent to the standards of WHO (World Health Organization) announced in 2020;

Weight: The average weight of boys and girls in Hanoi is slightly higher than WHO standards;

BMI: Through measurement parameters of height and weight of preschool boys and girls in Hanoi 4-5 years old, BMI is in the normal range;

Reaction to locomotion - single reflex (ms): The results of the survey on motor response in boys and girls are poor.

For pedagogical-physical fitness tests:

Fitness is not simply understood as "How fast are you capable of running?" or "How much force can you

push?", but fitness is a concept formed based on many physical factors, including some basic factors such as age; agility; strength; speed; health; coordination ability; dexterity ability; toughness.

For 4-year-old preschool children:

Balance standing on 1 foot (second): According to research results of Lam Thi Tuyet Thuy, compared with 4-year-old urban preschool children in the Central region: 4-year-old preschool children in Hanoi city are worse than boys and equivalent in girls;

Sitting with the body folded (cm): Compared with urban 4-year-old preschool children in the Central region, 4-year-old preschool children in Hanoi city are better;

In-situ (cm): Compared with urban 4-year-old preschool children in the Central region, 4-year-old preschool children in Hanoi city are worse off than boys and girls;

Throwing away with one hand (m): Compared to urban 4-year-old preschool children in the Central region, 4-year-old preschool children in Hanoi city are inferior.

Throwing away with 2 hands (m): Compared with 3-4-year-old urban children in the Central region, the 4-year-old Kindergarten children in Hanoi city are worse;

Hitting and catching the ball with 2 hands (fruit/minute): Compared with urban 4-year-old preschool children in the Central region, 4-year-old preschool children in Hanoi city are better;

Tossing the ball into the bucket with 2 hands (fruit): Compared to urban preschool children in the Central region, 4-year-old preschool children in Hanoi city are worse.

Running as fast as 10m (seconds): Compared with urban 4-year-old preschool children in the Central region, 4-year-old preschool children in Hanoi city are worse.

For 5-year-old preschool children:

Balance standing on 1 foot (second): according to the classification, with measured values, the balance ability of 4-year-old children is poor (<10 seconds); Compared with 5-year-old preschool children in urban areas in the Central region, 5-year-old preschool children in Hanoi city are worse off. If compared with the ability to balance standing on one leg of 5-year-old boys at Bong Sen Kindergarten, Tien Giang is 8.04 ± 0.67 seconds, than 5-year-old Preschool boys in Hanoi city are also worse;

Sitting flexed body (cm): the plasticity of 5-year-old boys and girls in Hanoi city, compared with 5-year-old urban preschool children in the Central region, 5-year-old preschool children in Hanoi city. better; If compared with the results of sitting and bending the body of 5-year-old

boys at Bong Sen Kindergarten, Tien Giang is 2.20 ± 1.28 cm, then 5-year-old Preschool boys in Hanoi city are also better;

In-situ (cm): Compared with urban 5-year-old preschool children in the Central region, 5-year-old preschool children in Hanoi city are worse; If compared with the results of the spot bounce of 5-year-old boys at Bong Sen Kindergarten, Tien Giang is 86.56 ± 6.33 cm, then 5-year-old Preschool boys in Hanoi city are also worse; Compared with 5-year-old preschool children Cao Lanh, Dong Thap, preschool children in Hanoi city are also worse.

One-handed long-throw (m): One-handed long-throw achievement of 5-year-old boys and girls; Compared with 5-year-old preschool children in urban areas in the Central region, 5-year-old preschool children in Hanoi city are worse off. Long throw with 2 hands (m): The achievement of 2 hands long throw of 5-year-old boys and girls; Compared with the results of boys at Bong Sen Kindergarten, Tien Giang, 5-year-old Preschool boys in Hanoi city are also worse; Hitting and catching the ball with 2 hands (fruit/minute): Compared with urban 5-year-old preschool children in the Central region, 5-year-old preschool children in Hanoi city are better; Tossing the ball with two hands into the bucket (fruit): Compared to urban preschool children in the Central region, 5-year-old preschool children in Hanoi city are worse.

Running fast 10m (seconds): compared to 5-year-old preschool children in urban areas in the Central region, 5-year-old preschool children in Hanoi city are worse; Compared with the 10m running results of 5-year-old boys at Bong Sen Kindergarten, Tien Giang, 5-year-old Preschool boys in Hanoi city are also worse.

The results of the survey on the physical development of 4-year-old preschool children in Hanoi, compared with previous studies, show that physical development tends to be better, although this comparison is only for reference. survey; because it can depend on many factors. If the physical development of boys and girls of the same age is compared, it shows that the physical development is similar, especially the morphological indicators, which reflect the physical development by sex at the same age. The sprouts have not differentiated clearly ($p > 0.01-0.05$). Like 4-year-old preschool children, the physical development of 5-year-old preschool boys and girls in Hanoi city has begun to grow rapidly, basically similar in gender, especially in indicators of gender. morphology, reflecting the physical development by sex at this age is not differentiated ($p > 0.01-0.05$); however, it is limited in physical strength, requiring attention to physical activity.

This indicates that the speed of physical development of preschool children 4-5 years old is slower than that of previous ages, but the process of ossification of the bones takes place rapidly. Children from 5 years old become stronger, self-reliant, hyperactive, and tireless, their movements gradually come to perfection. Therefore, children's movements must be monitored and checked by adults. The psychological processes of children at this age are completed, their attention capacity increases, they understand their tasks, and they can perform familiar movements and movements in many ways, in a short time. long, with a greater amount of exercise; Attention should be paid to the physical activity of children, because from a physiological perspective, movement is the movement of the human body, including the participation of the muscular system, the skeletal system, and the control of the nervous system. terrible.

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