

APPLY MASS TEST TO DETERMINE THE HEALTH STATUS IMPROVEMENT OF YOUNG RUSSIAN TABLE TENNIS ATHLETES

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Abstract:

Using regular scientific research methods to apply mass testing (MT) in assessing the improvement of the health status of young Russian table tennis athletes. From that, determining the correlation between health and status - function of young table tennis athletes, contributing to improving the performance of athletes.

Keywords: Mass test, health status, table tennis.

INTRODUCTION

Prof. John D is a well-known scientist in the field of Sports Management, especially public sports. Many of his scientific works have been widely applied in management, training athletes as well as mass sports training movement ... the Russian Academy of Sciences appreciated. Among them are tests to assess the function of sports learners, which we will introduce about MT tests in the scope of this article. This is a widely used test in the study of physical education and sports of the Russian Federation, in some countries in the world and in Vietnam (during the time Professor John D work as an expert in Vietnam). MT was used in the health status evaluation process of young Russian table tennis athletes, from there, the relationship between health status and functional status of athletes are found, which is the basis for the formation of physical - psychological stability for young athletes, contributing to improving the results of training and competition achievement for athletes.

RESEARCH METHODS

During the study, we used the following methods: Methods of analyzing and synthesizing documents; method of pedagogical observation ; method of pedagogical experiment, statistical mathematics method.

RESULTS AND DISCUSSION

1. Theoretical and scientific basis of mass test (массовый тест - MT)

1.1. Introducing MT test: A test used to assess the health status of athletes, thereby helping them take measures to practice, preserve and improve their health. After 20 years of conducting construction research and testing, this test was highly appreciated by the scientific council of the Russian Academy of Sciences.

1.2. Scientific basis of MT test: According to Prof. John, any amount of exercise or physical activity has a 95% effect on the cardiovascular system, circulation and up to 95% of that effect is expressed by the pulse frequency.

1.3. MT test tools: MT test is also highly appreciated for its convenience in its application, simple and convenient way to perform the exercises.

- Including:

+ A stopwatch ;

+ A podium for testers to perform steps on it according to the sizes shown in Table 1.

1.4. How to proceed with MT Test:

- First measure the pulse in a sitting position for 15 seconds, then count the pulse per minute: the number of pulses in 15'x4 = number of pulses / minute.

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illustration (photo by: upes1)

Table 1. Podium size when performing MT test on young male and female athletes

Age	Male	Female
To 35	40 cm	33cm
From 36 to 50	33cm	25cm
From 51 to 60	25cm	25cm (2')
Over 60	25cm (2')	25cm (1')

Table 2. Table of results after conducting MT test

	From second 1 to 61	From second 61 - 121	From second 121 - 181
	P1	P2	P3
Result			

+ When applying the MT Test, performing with high intensity of activity is not allowed, just maintain normal living, physiological and moving activities. Do not use stimulants such as coffee, tobacco ... when experimenting. Because of the high intensity of activity, stimulants such as coffee, tobacco ... will increase the heart's pulse and circulatory system.

+ Only athletes who have a quiet pulse less than 80 times / minute will be allowed to perform the test, and athletes who have more than 80 times / minute will not perform the test because it can cause consequences and cannot accurately assess the health status of young athletes.

- How to step on the podium: Athletes must step up and down the wooden platform

according to the size and time prescribed for the ages of male and female (Table 1). To be able to step up and down the podium properly (in 3 minutes it is possible to step 60 times up - down), the athletes must do the test unofficially in the previous 15 seconds. After doing the test, they must take 3 minutes off to be able to perform it officially.

- The person who controls the stopwatch can control it for many people to do the test together. The "start" command is for people to start stepping on the podium and the "stop" command is to stop stepping on the podium. When reading the command, it must be clear and loud enough for everyone to do it correctly. Participants count by themselves. Each person can test themselves when they want to test the

Table 3. Classify young table tennis athletes' health by applying MT test

Health classification	Pulse
Very good	Under 55 to 60 times / minute
Good	From 67 to 77 times / minute
Fair	From 78 to 88 times / minute
Pass	From 89 to 99 times / minute
Fail	Over 90 times / minute

functional status of the body by monitoring the stopwatch and counting. Note when stepping on the podium, they must keep the prescribed step frequency, not too fast or too slow.

- How to measure the pulse after podium stepping:

+ When the podium stepping is completed, sit for 1 minute and measure the circuit for 30 seconds to get the P 2 index, continue resting for 30 seconds and measure the circuit for 30 seconds to get the result P 3. The results of the circuit measurements are accurately recorded in the records, P 2 and P 3 columns .

- Results evaluation method: presented in Table 3.

2. Application of MT test to assess the improvement of the health status of young Russian table tennis athletes

2.1. Assess the health status of young Russian table tennis athletes via MT test application

In order to make an objective and more accurate assessment of the health status of young Russian table tennis athletes, we conducted a MT test on 32 Russian table tennis athletes aged 13 - 14 to assess the improvement level of health status for young Russian table tennis athletes.

- Experimental period: 12 months (from November 2009 to November 2010).

- Experimental location: Table tennis club "Pokrovka" - Moscow

The results are presented in Table 4.

Table 4 shows that the health status of young Russian table tennis athletes before the experiment has similarities between the

Table 4. Health status of young Russian table tennis athletes (before experiment)

	Health status of young Russian table tennis athletes (before experiment)					Note
	Very good	Good	Fair	Pass	Fail	
Experimental group (n = 16)	2 (12.5%)	2 (12.5%)	7 (43.75%)	3 (18.75%)	2 (12.5%)	Before the experiment
Control group (n = 16)	0 (0%)	2 (12.5%)	6 (37.5%)	6 (37.5 %)	2 (12.5 %)	Before the experiment

experimental and control groups. This is an important basis in the initial evaluation of athletes, which contribute to improving mental - physiological functions for young Russian table tennis athletes.

2.2. Application of MT test to assess the improvement of the health status of young Russian table tennis athletes under the influence of physical exercises

Based on the principles we assessed the functional status, the organs system of the body with the help of modern biomedical device system. Studying morphological indicators of motor function under the influence of physical exercises can be considered as tests to assess the adaptability of the body to physical exercises, in order to determine the effectiveness and level of recovery.



illustration (photo by: upes1)

Table 5. Health status of young Russian table tennis athletes (after experiment)

Experimental phase	Health status of young Russian table tennis athletes (after experiment)					Note
	Very good	Good	Fair	Pass	Fail	
Experimental group (n = 16)	3 (18.75%)	6 (37.5 %)	5 (31.25 %)	2 (12. 5%)	0 (0%)	After experiment
Control group (n = 16)	1 (6.25%)	3 (18.75%)	7 (43.75%)	4 (25%)	1 (6.25%)	After experiment

Results are presented in Table 5.

Table 5 shows, between the experimental group and control group there are significant changes in health status. Specifically in the experimental group: Good level increased 12.5 %, fair level increased 18.75 %, weak and poor levels decreased 12.5%. This shows that there is a certain effect of physical exercise on the improvement of athletes' health status.

CONCLUSION

MT test is one of the tests to assess the improvement of health status, which is widely used in the field of scientific research and sports of the Russian Federation as well as some countries in the world. The application of MT test in evaluating the improvement of the health status of young Russian table tennis athletes has shown the effect of physical exercises on the process of improving athletes' health (The experimental group had better health than the

control group). This is an important basis for us to proceed to improve functional status for athletes, contribute in improving training and competition achievements.

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