

# The effect of highly-competitive exercises in the speed of competition in the development of rapid strength and the skill of Heri-Kushi-Auchimatt and the concentration of Hexokinase in the blood for young judo players

<sup>1</sup>Liza Rustum Yaqoob

## **Abstract:**

*Through the presence of the researcher in the field, being a former player and currently trained in the field of judo competition, and through careful observation of most training programs for some of the judo competition, I noticed that there is a problem in the field of training judo players, especially the youth category, where the research problem centered on missing training curricula for most of the judo competition Physical abilities and how to develop them, especially the fast power, because of its great importance for young judo players due to the lack of physical and technical skills training for the game, including the skill of Hari Kushi - Ogie Matt, as well as the great lack of exercise mechanism strongly competition speed and a lack of time allocated to it and in the knowledge of the role of indicators Functionality (enzymes) in the anaerobic process during their training units because of its importance to advance the numbers of the player physically and skillfully and focus on the correct performance and find appropriate solutions by following rapid exercises to know the extent of their impact on physical ability which is the rapid strength and ratio and skill of Heri Cauchy - Ogi matt an enzyme concentration hexactine in the blood, the importance of research involving the use of exercises strongly demonstrated the speed of the competitor It is in the development of rapid strength, the skill of Hi-Coche-Ogie Matt and the concentration of hexokinase in the blood for young judo players.*

*The researcher adopted the experimental approach with equal groups and determined the research community (12 players) under the age of 20 years, and the program was implemented in exercises strongly the speed of competition for the rapid strength and the skill of Hari Kuchi-Ogie Matt and the ratio of concentration of hexokinase in the blood to the judo players for eight weeks and at the rate of three Training units per week, the researcher used the statistical bag (SPSS), and the researcher reached the most important conclusions that exercises strongly the*

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<sup>1</sup> University of Baghdad: College of Physical Education and Sports sciences for Girls Women

*speed of competition has positively affected the development of rapid strength and the skill of Hi-Coche-Ogie Matt and the ratio of concentration of hexokinase in the blood to Judo players young and recommends the researcher can rely on exercises strongly Rapid competition in developing all physical abilities and conducting similar studies on other age groups.*

**Key Words:** *Exercises with extreme speed, competition, fast power, and Hi-Cochie-Auchi skill Hexocaine concentration in the blood, judo competition.*

## **I. Introduction:**

Sports training is an essential pillar and an important necessity in the training process, so raising the sports level must be based on sound scientific foundations, so those involved in the training process must develop training plans and programs based on scientific foundations to improve the training process and develop elements of sports training that are elements Interconnected and integrated, as the athlete cannot reach advanced centers if there is no integration in the elements of fitness, and from here it can be said or indicated by focusing on physical capabilities through physical preparation, which is a key stage to reach the highest levels, as this stage is based on Physical abilities and motor skills. The sport of judo competition is one of the important Olympic sports listed in the Olympic program since 1964 in Tokyo because of its importance and sporting status among all sports in terms of the huge amount of gold, silver and bronze medals as well as its multiple benefits to its practitioners, so those involved in it give Their thinking and effort to try to further develop them and upgrade their technical, skill and physical level, through the use of all general methods The number and methods of modern training, which led to a very high physical and technical development that contributed to the achievement at the level of international championships, and scientific research is one of the most important means in the sports field, and the Air Du competition relies heavily on those researches, and among these research is physiological research being It is largely concerned with the state of the body's functional systems and the developments in which it occurs as reactions to external and internal loads. Hence the importance of the research, which includes the use of exercises, the speed of competition, in the development of rapid strength, the skill of Hi-Coci-Oggi Matt and the concentration of hexokinase in the blood for young judo players.

### **Research problem:**

Through the work of the researcher in training for many years in the judo competition and its continuous field follow-up, I noticed that the training process for special physical ability (bearing speed) in the training dose is little or it is mostly done according to the judgments and self-jurisprudence or on what is available from previous experiences without resorting to the scientific foundations in Their training and without studying the impact of functional capabilities (enzymes), as the functional aspect is almost neglected in preparing the training program, and therefore these things became clear through the slowdown in the player's speed and movement and a weakness in the performance of his technical skill in performance due to the large lack of energy systems components due to the lack of the majority of players To the development of rapid strength as these capabilities have become the dominant in the judo competition and that the antenna system is the basic system of the judo competition, as well as knowing the

extent of the impact of those exercises on functional ability (improving the concentration of anaerobic enzymes) especially the hexokinase enzyme in the blood and knowing the large role this plays The enzyme in anaerobic exercises as well as improving physical efficiency.

**Research aims:**

- Exercise preparation with extreme speed, competition in the development of fast strength, Hero-Kushi skill
- Auchu Matt and the concentration of hexokinase in the blood for young judo players.
- Understanding the effect of exercises with the strong speed of competition in the development of fast strength, Hero-Kushi skill - Auchu Matt and the concentration of hexokinase in the blood for young judo players.

**Research hypotheses:**

Exercises with strong competition speed will have a positive effect on developing rapid strength, Hero-Kuchi-Auchu skill and the hexokinase concentration in the blood for young judo players.

**II. Research Methodology:**

The researcher used the experimental method in the experimental design with pre and post -test for the two equivalent groups (experimental and control), as it suits the nature of the research.

**Research community:**

The search community has been identified with the 12 judo players in the Police Sports Club for the 2019 season. As the research sample was chosen using the comprehensive inventory method, the sample was divided into two groups (experimental and controlling), with six players for each group.

**Tools:**

- Several measures to detect hexokinase.
- Medical materials and tools.
- Syringes to draw blood, volume (5) cc.
- Plastic blood tubes containing anticoagulants.
- A tube to store tubes (tubes) containing ice.
- Sterilization materials.
- medical Cotton.

**Field research procedures:**

- Measurements of physical parameters:
  - Arm's distinctive force.

- leg's distinctive force
- Measuring the concentration of hexokinase in the blood.
- Performing the Hari Kushi grab ... Auchu Matt.

**Pre- tests:**

Pre- tests were conducted in the hall of the College of Physical Education and Sports Science, University of Baghdad on Saturday 5/1/2019.

**Main experience:**

- The researcher prepared special training according to the real time achieved in the pre- tests.
- The training was given by three training units per week, days (Saturday, Monday and Wednesday).
- The experiment started on Thursday 10/1/2019 and ended on Sunday 10/3/2019.
- The training took 8 weeks, and 24 training units were applied.
- The researcher followed the method of high-intensity young training and repetitive training to develop speed tolerance.

**Post-test:**

The researcher conducted the post-exams at the College of Physical Education and Sports Science at the University of Baghdad on Tuesday 3/3/2019 (after completing the proposed exercises and with the same steps and conditions in which the tests were conducted).

**III. Results of physical and chemical variables, analysis and discussion:**

Difference of arithmetic mean, standard error, calculated value (t) and significance of differences between the results of the pre- and post- tests in the search variables of the two research groups.							
Variables	Tests	Experimental group		Control group		Calculated value of t	Significance
		A	Std	A	Std		
	Pre-test	16.1	1.42	14.2	1.34	2.91	Sign

Arm's distinctive force.	Post-test	18.3	1.86	14.89	1.86	1.65	Sign
leg's distinctive force	Pre-test	25.6	1.71	23.4	1.65	1.06	Sign
	Post-test	25.6	1.71	27.5	2.12	1.03	Sign
Measuring the concentration of hexokinase in the blood.	Pre-test	0.172	0.873	0.173	0.472	2.21	Sign
	Post-test	0.144	0.254	0.162	0.313	0.86	Sign
Performing the Hari Kushi grab Auchi Matt	Pre-test	7.24	1.92	7	2.7	0.23	Sign
	Post-test	8.645	1.010	7.374	1.061	3.96	Sign

There is a significant difference between the pre and post -tests of the experimental group of the experimental group to use exercises with a strong competition speed that helped in the development of the rapid strength of the arms such as forward leaning the side opening with rapid strength exercises using the intensity of exercise performance, performance time, rest periods and number of exercise repetitions. The researcher attributes the reason for the development to the effectiveness of the codified exercises for developing rapid strength, as physical exercises characterized by rapid strength such as vertical and horizontal vaulting were used to the farthest distance, as well as palladium exercises, jumping over the teammate, and the use of intensity and repetition in a specific time with comfort while helping the players of the experimental sample gain the rapid strength of the arms And the two men during the performance. [1] states that the level of the appearance of the distinct force is related to the nature of the movement's skill performance, and the athlete cannot show the highest level of the distinctive strength at speed except in the case of high skill performance, as the primary role of motor coordination within the muscle between the fibers and the motor units and the temporal properties of contraction The main factor for the development of the force characterized by speed is the compatibility within the muscle between the muscle fibers and the speed of the muscular contraction of the motor units.

The researcher attributes this to the development achieved as a result of the use of highly competitive exercises represented by rapid strength, which helped to create a high speed of movement in the hip. Physical hip works very effectively in the department, as well as the division of skill into several parts and stages in the process of

skill preparation and the use of (Oggy - Comi) i.e. repeated repetition of grabs by throwing and without throwing in addition to intensity and comfort between repetition and some exercises that helped direct pressure to learn the skill more difficult stage In an unstable situation in addition to giving it to the families during skillful preparation, the physical aspect developed as a basic and important factor in mastering the performance of motor skills and reaching the required technical level [2]. An evolution has occurred in the concentration of hexokinase in the blood, and the researcher attributes this to the application of highly competitive training exercises following the method of high-intensity interval training and repetitive training, which leads to changes in the level of its concentration in the blood where training that focuses mainly on the anaerobic side leads to an increase Anaerobic enzyme capacity. [3].

[4] states that in the anaerobic training loads, the percentage and capacity of glucose enzymes increases as well as sports activity accompanies many chemical reactions during the metabolism of energy production and from these processes the chemical division and cracking of glycogen stored in the body, and the production of glucose and its use directly to produce energy Here, it shows us the importance and role of the hexokinase enzyme in chemical reactions to control the process of breaking down anaerobic glucose, as this enzyme is the enzyme responsible for the first reaction in the system of decomposition of glycogen inside the muscle. [5] and [6] Thus, an essential part of the study goal was achieved in preparing exercises according to strength indicators to develop the special physical abilities of the experimental research sample, training in a phase to avoid or overcome the phenomenon of fatigue, using methods and means. And their methods in terms of intensity (relative), distance, size and number of weekly units for their training [7].

#### **IV. Conclusions and recommendations:**

##### **Conclusions:**

1 - Exercises with great competition speed have a positive effect on the experimental group compared to the control

2 - The physical and skill exercises developed by the researcher after codifying the established tests are considered a codified method for developing the complex technical exercises that are related to the Hari Kushi Oji Matt grab.

##### **Recommendations:**

1- The use of modern devices that measure functional and chemical indicators in the field in codifying the training pregnancy, as they give a true indication of the reflection of the training on the internal pregnancy.

2- Attention to developing physical and skill capabilities that have a direct impact in developing achievement in the judo competition, and conducting similar studies on other age groups in the judo competition.

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