

THE EFFECT OF KATSU EXERCISES ON SOME ABILITIES OF STRENGTH AND ACHIEVEMENT OF ADVANCED WEIGHT LIFTERS, BAGHDAD CLUBS

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Abstract

The purpose of this paper is to prepare kaatsu exercises for advanced weight lifters, Baghdad clubs, and identify the effect of kaatsu exercises on some strength and achievement abilities of the advanced lifters of the Baghdad clubs. The researcher used the experimental approach in one group design with pre and post-test, since this design is of tight control with its suitability for the research procedures. The process of choosing a research sample is one of the most important things in scientific research, as it must represent the original community honestly in order to give accurate and real results about that community and enrich the research with honest scientific information, so the researcher chose a random sample consisting of (6) lifters out of a total of 20 players in the weight category (81) kg. One of the most important results reached by the researcher is that: Kaatsu exercises had a positive effect on developing the achievement of the clean and jerk snatch, and use of kaatsu exercises contributes more to the process of developing strength capabilities. One of the most important recommendations recommended by the researchers is that: Necessity of using kaatsu intended for lifters and in special preparation specifically, and need to use kaatsu exercises with a variety of high-speed intensities to influence achievement.

Keywords: Katsu exercises. Weight lifters. Sports exercises. Sports psychology

Introduction

The sport of weightlifting requires high efficiency of physical exercises and resistance to relatively high weights, as well as diversification of training methods and methods, which start with medium intensity and high repetitions and end with high intensity and few repetitions. According to the training goal and the preparation period, lifters need different training methods and from that, the concept of modern training tended to discover exercises that can be applied to most sports, including weightlifting, and I got results that should be paid attention to. Among these exercises are exercised with kaatsu belts, as these methods may be the most appropriate with the sport of weightlifting, since the process of pressing the kaatsu belts on a specific part of the body, leads to the generation of high stress as a result of the blood restriction process in the part that the player trains, and this matter generates physical returns as well as the physiological. which the player must deal with carefully in terms of the quality of training, by repeating the two lifts in such a type of training and with the presence of resistances to develop the distinctive strength with speed and maximum power, it may achieve a result of these methods in these periods of preparation, and here lies the importance of the research in developing updated exercises

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represented by cardio exercises and kaatsu exercises and rationing these exercises in a manner commensurate with the period of special preparation for bodybuilders the Classic Physique class is in the hands of the coaches in order to deal with the player optimally in this sensitive period, hoping that it will bring better results than the previous methods.

Research Problem

The sport of weightlifting in general requires physical capabilities capable of bearing the burdens and stresses of high training as best as possible to complete the optimal physical image commensurate with the nature of the completion of this sport, as the most difficult periods faced by the weightlifting athlete is the period of special preparation because the player is under the influence of intense training Extremism and subject to a strict, precise and specific training system, and this is what is applicable in the old traditional methods of weightlifting, and in contrast to the classic method used, updated methods of exercises and kaatsu appeared, which help lifters to face the difficulty of the special preparation period, as it may have an impact on the level of achieving physical abilities Optimum with time economy in terms of training with intensity ranging from (75-85)% using kaatsu belts and for the duration of the program ranging from 4 to 6 weeks leads to an increase of 10-20% in the maximum strength of the muscles (physio-pedia.com) and thus the research aims to address the routine followed in this period of preparation the mission

Research objective

- Preparing kaatsu exercises for advanced weight lifters, Baghdad clubs

To identify the The effect of katsu exercises on some abilities of strength and achievement of advanced weight lifters, Baghdad clubs

Research hypotheses

- KAATSU exercises have a positive effect on some abilities of strength and achievement for the advanced lifters of the Baghdad clubs

Research fields:

- Human field: The advanced lifters category (81) kg) by lifting weights in Baghdad clubs teams

- Time field: (15/6/2022) to (1/8/2022)

- Spatial field: Training center for the national team of Al-Amanah weightlifting club

Research Methodology and Field Procedures

Research methodology

The researcher used the experimental approach in one group design with pre and post-test, since this design is of tight control with its suitability for the research procedures, as "the experimental approach depends on introducing a deliberate and controlled variable for the specific conditions of an accident and observing and interpreting the resulting changes in the accident itself" (Mahjoub, 1993).

Community and sample research

The process of choosing a research sample is one of the most important things in scientific research, as it must represent the original community honestly in order to give accurate and real results about that community and enrich the research with honest scientific information, so the researcher chose a random sample consisting of (6) lifters out of a total of 20 players in the weight category (81) kg.

Methods, Tools and Devices used in the Research:

Means of collecting information

- Measurement and testing.

Tools and devices used in the research:

- A computer (Dell) made in China.
- Medical scale (Chinese-made electronic).
- Saw iron and iron discs of different weights (2.5 kg - 25 kg).
- Traps of different heights.

Field Research Procedures

Determine the tests and measurements:

1. Test name: the completion of the snatch

- Purpose of the test: To measure the completion of the snatch lift
- Measurement unit: kilogram
- Tools used: iron discs - iron shaft - (drum)
- Performance method: The player fully adheres to the technical stages of weightlifting while carrying as many resistances as possible.
- Scoring method: The player is given three attempts, the best of which is counted.

2. Test name: Clean and jerk achievement

- The purpose of the test: to measure the achievement of Clean and jerk
- Measurement unit: kilogram
- Tools used: iron discs - iron shaft - (drum)
- Performance method: The player fully adheres to the technical stages of weightlifting while carrying as many resistances as possible.
- Scoring method: The player is given three attempts, the best of which is counted.

3. Test the strength characteristic of the speed of the two legs (Al-Ankabi. 2010):

- Name of the test: back squat during (10) seconds with intensity (70%).
- Purpose of the test: Measuring the strength characteristic of the speed of the muscles of the legs during the downward movement and then the full rise.
- Equipment and tools: legal weightlifting set, (2) iron braces.
- Procedures: Determine (70%) of the maximum weight in kilograms for each member of the three experimental groups, and the frequency is calculated during the performance period.
- Performance description: The initial position for this test is characterized by placing the weight pole on the shoulders from behind, after the tester holds the weight pole at a distance wider than the shoulders, leans on the shoulders from behind, and grips it with the hands at a distance greater than the breadth of the hands, and the distance between the feet is shoulder-width apart and the back is maintained flat and the chest is high after Taking the weight pole from the suspenders and with the help of the assistant work team, the laboratory bends the knees completely and then fully rises with the iron for more times within (10) seconds while maintaining the initial position.
- Recording: The largest number of repetitions within (10) seconds.

4. Strength endurance for two legs

- Test name: back squat (Allawi and Al-Din Radwan. 1982)
- Purpose of the test: Measuring the dynamic strength of the muscles of the legs during the full downward movement and then the rise.
- Tools:
- New regular bar weighing (20) kg.
- Iron discs of different weights.
- Bearded bras.
- Procedures: Calculating the weight of the iron bar with calculating the weight of the iron discs carried on the complete bar. The laboratory places the iron bar with the discs carried on shoulder width behind the neck.
- Description of the performance: Placing the weight bar (iron bar) on the shoulders, resting on the neck and shoulders, holding the bar shoulder-width apart, and the distance between the feet is shoulder-width apart, while maintaining the flat back position and the chest protruding high. After taking the bar from the suspenders, the tester bends the knees completely and then fully rises with the iron.
- Method of measurement: The number of repetitions is calculated within 30 seconds at an intensity level of 50% according to the maximum resistance.

Pre-tests:

In order to determine the levels of individuals of the research sample before conducting the main experiment on them, the researchers and the auxiliary work team gave some directions to the sample and introduced them in general about the importance of the research and then the implementation of the tests in front of the players with an emphasis on the mechanism of correct kinetic performance for each test, after which the pre-tests were started on the day 6/17/2022:

- First day: achievement test for the snatch and jerk lifts.
- Second day: testing the strength of the two men with speed - the continuity of the strength for the two men.

Main experiment

The following steps show the specifications of the work in the main experiment of the research group, as follows:

- Training units per week of kaatsu exercises.
- At the beginning of each training unit, emphasis is placed on ensuring that warm-up and muscle-stretching exercises are performed.
- The main section begins with exercises.
- Two Paleo Kaatsu exercises are used in each training unit. These exercises target different muscle groups.
- It was stressed on the full and accurate adherence to the instructions and instructions for the kinetic performance of the lifts
- Organizing the performance of exercises
- The player performs a number of exercises from (3-4) exercises for the restricted muscles without stopping or resting.
- At an intensity of 70-80% of your RM for each exercise -
- With repetitions of (8-10) repetitions for each exercise.
- The rest is (100-180) seconds.
- From (4) groups targeting an individual or opposing muscles -
- The total number of training units (12) training units

Post-test:

On Tuesday, corresponding to 7/30/2022, the tests and post-measurements began. The researcher took into account that the procedures should be similar to the conditions of the pre-tests as much as possible in terms of timing, tools and devices used, and follow the same sequence in conducting the pre-tests and measurements, as follows:

- First day: achievement test for the snatch, clean and jerk.
- Second day: testing the strength of the speed of the two men - the continuity of strength for the two men.

Statistical methods: The search data was processed through the Statistical Package for the Social Sciences (SPSS).

Results and Discussion

Presentation, analysis and discussion of the results of achievement and the capabilities of the strength.

Presenting, analyzing and discussing the results of the pre and post-tests in the achievement of strength abilities (Table 1).

Discussing the achievement of the snatch, clean and jerk lifts and strength abilities:

The researchers attribute the superiority of the results of the post-test over the pre-test to the kaatsu exercises used by the research group and what they contain sequential and intensive exercises, which generate stress upon him when performing as a result of repetitions without rest with the transition from one exercise to another, which had a positive impact on the results obtained by the research group. As this method is of great benefit in the sport of weightlifting because the method of performance in it was using kaatsu exercises to serve the kinetic path of lifting in terms of kinetic performance, and physical adaptations occurred as a result of it, and this is confirmed by that "Each group of exercises must be prepared in a way that gives an effective effect in developing all abilities related to the type of activity." (Basir. 2006).

The term kaatsu exercises refers to working to imprison the blood flow returning to the muscle, which gives it strength, greater muscle building, and a more beautiful appearance, and helps the muscles to mobilize large muscle

Table 1: Shows the arithmetic mean, standard deviation, calculated (t) value, error level, significance, differences of the arithmetic mean, and deviation of the differences in the pre and post-tests.

No.	Variables	Pre-test		Post-test		Arithmetic mean of difference	Standard deviation of differences	T value calculated	Level Sig	Type Sig
		Arithmetic mean	Standard deviation	Arithmetic mean	Standard deviation					
1	Achievement snatch kg	142	10.332	150	9.022	7.987	2.222	3.594	0.021	Sig
2	Achievement of the Clean and jerk kg lift	162.112	9.111	169.033	12.654	6.221	1.200	5.184	0.000	Sig
3	The strength characteristic of the speed of the two legs / repetition	7.008	2.985	10.654	3.098	2.432	0.452	5.380	0.030	Sig
	Continuity of strength for the two legs / repetition	21.111	7.123	26.765	6.762	5.332	1.890	2.821	0.010	Sig

Significant at an error level $\leq (0.05)$ with degrees of freedom (5).

groups and fibers in a specific period of time, as this works to achieve muscle contraction with greater force, in which a group of factors contribute, including those related to the two organs Nervous and muscular and in different directions in each of them. The method of kaatsu exercises gives additions in the strength of the contraction without the rest of the methods as a result of the high repetition of the weights in a simultaneous instantaneous manner, as well as the added pressure through the stimulation of the soft tissues in the ligaments, joints and tendons that are under pressure and this energy in itself. There are relative increases in the outputs of maximum strength and physical capabilities, which reflects positively on the achievement of the clean and jerk snatch lifts. The reason for the development of the results of the achievement is due to the exercises of the Kaatsu method, which affected positively, as it requires transitions in muscular work from one muscle group to another with control over the positions and parts of the body through the precise and mutual regulation between the muscle groups when performing them, which directly affects the process. The participation of muscle groups with great accuracy, and this matter is sufficient for the occurrence of high neuromuscular compatibility, as he confirms "Physiology considers compatibility as the regulation of the exchange of muscle action" (Maynell. 1987), This matter is largely directed to the development of the maximum ability, which expresses the movement in which a large amount of force is used, and this matter is a major requirement in the sport of weightlifting in the clean and jerk lifts because the level of the maximum ability appears through the proportionality between the amount of force used and the momentary performance time. Which is determined based on the relationship (strength - speed). It is obvious that there is an inverse relationship between force and speed, as both variables cannot reach the maximum at the same time, which is what the maximum capacity requires.

The results of the physical capabilities, the strength distinguished by speed, came positively through the superiority of the results of the dimensional tests over the tribal ones because the capabilities of the strength are considered to be affected by the severity and repetitions of the sports performance. Training for maximum strength. The force that is characterized by speed tends, once to speed more, and once to maximum force, depending on the size of the external resistance as well as the external configuration of the movement. This ability appears in two cases, when heavy resistances are used, the speed level of the force is determined according to the level of the maximum force. When using light resistances, the speed level of the force is determined according to the degree of inclination to which the curve ascends (Khraibet and Turki. 2002). In order to show rapid strength, the rapid contracting materials of the muscles play a major role. That is, the fast fibers and the slow fibers are compatible in movement, and the fast fibers form the basic material in the muscle fibers of the representatives of the high skills of the types of strength sports that are characterized by speed

The most important factors associated with the force characteristic of speed are: - (Khraibet and Turki. 2002)

1. Neurological compatibility within the muscle between the fibers, which is one of the most important factors.
2. The strength characteristic of speed is related to the degree of proficiency in skillful performance. The higher the degree of skillful performance, the higher the level of compatibility between the fibers.

The results of the research group in the strength table are positive because kaatsu exercises simulate this ability as a result of the high repetitions that the player performs in the presence of relatively high resistances to perform various types of exercises within the various training rules and its different

systems. From preparing it well, the strength here alone is not enough, as it must be combined with the characteristic of prolonged to complete the achievement of strength and then complete the entire training unit, and it seems that the need is greater for the ability to stretch the strength through the periods of preparation for the competitions, where the training is high-intensity, not to mention the lack of rest periods and the effort that is required to complete the exercises appropriately (Al-Qaisi. 1991).

Conclusions and Recommendations

Conclusions

- Kaatsu exercises had a positive effect on developing the achievement of the clean and jerk snatch.
- The use of kaatsu exercises contributes more to the process of developing strength capabilities.
- Including the kaatsu exercise in the vocabulary of the training curriculum makes it easier for the trainer to overcome many training problems, especially in the achievement
- The specific use of the intensity of the kaatsu exercises is consistent with the performance requirements, the form of the exercise, and the required kinetic duty.

Recommendations

- Necessity of using kaatsu intended for lifters and in special preparation specifically.
- Need to use kaatsu exercises with a variety of high-speed intensities to influence achievement.
- Necessity of diversifying the intensity of kaatsu exercises to confirm that it is highly effective in line with the requirements of kinetic duty.
- Accurate and complete adherence to the requirements of kaatsu exercises, as well as the availability of safety and security conditions.

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Appendix 1: Shows a sample daily kaatsu training module, Typical training unit, Training unit time: 55 minutes.

No.	The name of the exercise	Exercise intensity	Repetitions for each exercise (station)	group time (series)	Rest between series of exercises	Sets
1	Jerke strapless	%85	10-8	min (12-10)	min 4-3	5-4
2	Klein Hank checked out					
3	Pull snatch chairs					
4	Pull hunk hijac					