

Some Physical Variables and Their Relationship to the Achievement of Squat Lift for Physical Strength Players

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Abstract

The physical strength sport consists of three lifts, which are the squat lift, the bench push-up, and the deadlift. The game of physical strength is one of the widely spread sporting events in our time, and our national teams have achieved advanced local, continental and international positions in it, and this did not come by chance, but rather from the independence of the state. Its central union and a course in preparing the training and arbitration staff.

The thing that prompted us to study the relationship between the variables under study and achievement is the level variation from one period to another, so (20) was chosen out of (45) from the research community after homogenizing them. After the data were collected and processed statistically, the most important conclusions were reached through the results presented, it appeared that there is a weak correlation between the maximum force variable and the achievement variable, and the results also showed a weak correlation between the explosive ability of the muscles and the achievement variable, and this naturally corresponds to the outcome of the correlation between the force load variable and the achievement variable, which appeared. The results between them have the same description of the aforementioned variables in terms of weak correlation, and certainly it is the result of weak compatibility between the types of strength in the training skills that the research sample members.

Keywords: Physical achievement Squat lift and physical strength.

Introduction

Scientific progress is one of the variables of our modern era, as it includes all life, including the mathematical aspect that interacts with the humanities, to prepare the individual in a balanced manner that paves him to reach the higher levels in sporting events, as access to championships in all sporting events is linked to an integrated series of rules based on Scientific foundations for selecting, educating and training the player, and the science of training is one of these sciences.

What is meant by sports training in its comprehensive meaning is that it is all the stages organized to prepare the athlete to reach the higher levels to compete in local and international competitions, and sports training based on scientific foundations leads to reaching mathematical perfection through an organized and accurate influence on the capabilities of the athlete, where sports training aims mainly to Preparing the individual and changing his behavior and method of performance to achieve a certain level of motor and skill performance, and sports training is the process that puts the athlete or player who has been subjected to physical, physiological and psychological influence that leads him to reach the degree of competence to reach the higher levels.¹

And that improving the maximum strength means learning the course of strength through organized exercises, the aim of which is the rapid progress of each of the physical, mental, tactical, technical, psychological and educational aspects of the athlete with the help of exercises and that is the effort. And the sport of physical strength is one of the sports that depended in its development on other sciences. It is one of the well-known sports. The cranes are dealt with by referees in local and international tournaments, and they are the most important basic pillars on which the game of physical strength is based.²

As they are a sign of upgrading the level of the athlete. The sport of physical strength consists of three lifts, which are the squat lift, the bench press lift, and the deadlift lift. And the game of physical strength is one of the sporting events that is widely spread in our time, and our national teams have achieved advanced local, continental and international positions in it, and this did not come from coincidence, but rather from the independence of its central union and a course in preparing training and arbitration cadres.³

Research objectives

- To identify the relationship between some physical variables and the achievement of physical strength players in the squat lift.

Research Methodology

The researcher used the descriptive approach in the way of correlational relations due to its suitability to the nature of the research procedures.

Research community and sample

The research community included (45) players from the lifters, (20) were selected after homogeneity tests were conducted among them.

Methods, tools and devices used

- Observation and experimentation.
- The resolution.
- Personal interviews.
- Test and measure.
- Arabic and foreign references and sources.
- The lifting platform (drum) number (1) with dimensions (length x width), (2.5m x 2.5m) at least and (4m x 4m) at most, and its height is (10 cm).
- Weight column (shift) number (1).
- Iron discs (weights).
- (1) LENOVO laptop computer
- A tape measure (5 meters) long.
- Adhesive tape of different colors (5).
- Pens of different colors, number (5).
- Device (USP).
- The training device and the tool used.

Pilot Study

The researcher conducted the pilot study on a sample of the players participating in the federations' championships in physical strength, if they numbered (5) players and they are the research sample.⁴

The exploratory experiment helped the researcher to:

- Knowing the time taken for the sample to perform the test.
- Avoiding some mistakes that the researcher and the assistant work team face.
- Ensure the validity of the devices and tools used.
- Knowing the extent of the testers' readiness to take the test.

Tests used in the research

1. Test the effectiveness of squats⁵

- Test name: Squat effectiveness test
- The purpose of the test: Measuring the numerical level of the players' achievement with the effectiveness of Squat.
- Tools used: The researcher prepared a questionnaire, including (player's name, player's block, three attempts, best attempt, notes).
- Description of the test: The player takes a weight pole (shift) from squat stretcher and carries it on the shoulders and descends and ascends with it (squatting) and returns it to the squatting rack.
- Registration: Each player is given three attempts, and the best attempt is recorded.

Results

- **Presentation, analysis and discussion of the results of the variables under study**

Table 1. Shows the arithmetic mean, standard deviations, and sample size for the research variables

Variables	Mean	Std. Deviation	N
Maximum strength	101.00	0.918	20
Explosive capacity	201.85	1.226	20
Endurance strength	18.05	0.887	20
Performance	205.05	2.856	20

Table 2. Shows the correlation between the variables under study

Variables		Maximum strength	Explosive capacity	Endurance strength	Performance
Maximum strength	Pearson Correlation	1	0.140	0.194	0.362
	Sig. (2-tailed)		0.555	0.413	0.117
	N	20	20	20	20
Explosive capacity	Pearson Correlation	0.140	1	0.056	0.283
	Sig. (2-tailed)	0.555		0.816	0.226
	N	20	20	20	20
Endurance strength	Pearson Correlation	0.194	0.056	1	0.230
	Sig. (2-tailed)	0.413	0.816		.330
	N	20	20	20	20
Performance	Pearson Correlation	0.362	0.283	0.230	1
	Sig. (2-tailed)	0.117	0.226	0.330	
	N	20	20	20	20

Through the results presented in the table (1 and 2) it is clear that there is a weak correlation between the variables under study and achievement, and the reason for this is due to the amount of changes associated with the vital capacity of the muscles, as the muscle capacity is variable from one period of time to another according to the variables of the environment and the daily load of the body. Therefore, the maximum performance provided by the body is based on the ability of the player to adjust the exercises in accordance with the increase in the cross-sectional area of the muscle and the modification of the properties of the muscle fibers to comply

with the requirements of the effective performance of each player and according to the specialized effectiveness.⁶

Muscular strength expresses the body's ability to perform a specific activity quickly and repeatedly, whether it is during a single performance or over a long period of time, as maintaining strong muscle strength is very important for body health and quality of life, especially for weightlifters.⁷

The integration of forces with each other is important in achieving the best achievement, so the weightlifter needs great flexibility for the performance requirements that need wide ranges of body joints contributing to the performance, such as the shoulder joint and the elbow. In addition, the weightlifter needs flexibility to overcome the situations that may arise from weight gain during competition.⁸

Through the foregoing, the muscular ability alone is not sufficient to achieve achievement, as the reason behind the weakness of the relationship between the variables under study and achievement is the lack of focus of the coach on some of the relevant motor capabilities, among which we mention flexibility, agility and compatibility, so the coach must focus on the output of strength to achieve the best completion.⁹

Conclusions

Through the results presented, it appeared that there is a weak correlation between the maximum force variable and the achievement variable, and the results also showed a weak correlation between the explosive ability of the muscles and the achievement variable, and this naturally corresponds to the outcome of the correlation between the force load variable and the achievement variable, which appeared. The results between them have the same description of the aforementioned variables in terms of weak correlation, and certainly it is the result of weak compatibility between the types of strength in the training skills that the research sample members.

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