

The Effect of Gradual Training By Decreasing Training Load On Some Physical, Physiological Variables, and Achievement In Youth Weightlifters

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Abstract

This study aimed to prepare a curriculum on the principle of gradual decrease the intensity and size training and its impact on some variables , physical, physiological and achievement of power lifters youth The research problem is represented in the great effort that is facing the players during the tournament , which causes fatigue have due to overload in training before the competition, leading to a lack of Achievement and failure of the lifts and sometimes to The researchers used the experimental approach with the two experimental groups. The first experimental group underwent a drop in training intensity from three peaks per week to one peak to be of the same weight, and the second experimental group underwent a gradual decrease in size by reducing the number of iterations while maintaining Training stresses: As the same exercises were applied for the two experimental groups, the researcher concluded that the first experimental group achieved better results than the second experimental group.

Keywords: Gradual Training, Training Load, Physical, Physiological, Variables, Achievement, Youth, Weightlifters

Introduction

The sports training from the fundamentals that contribute effectively to the development of achievement and achieve advanced levels as a n strategic objective of the coach is to reach Basel the overall performance to its peak during the competitions Fa coaches , athletes , sports science and other P are key elements contributing to the achievement of the highest rates of adaptation to the physiological and "In order to achieve this level, workers and those interested in the field of training must display the characteristics, characteristics, knowledge, motives and experiences that enable the trainer to reach goals, and this is what he confirmed." (*Hutchinson, 2018*) As through it, the trainer and the athlete can reach the optimum performance in the main competition, as this is done through the use of different methods that are related to the gradual decline with the total components of the training load (volume - intensity - intensity), where this method is described (gradual decline) and mentioned (*Boyle, 2010*) The good coach analyzes the scientific data and numbers players and deal with them according to the conditions of competition and through the understanding of science and the possibilities of the players who is training based program can be designed help players achieve the required achievement through a downward gradient in intensity and size training to enter the competition in preserves the possibility of the players " as the period leading up to the main tournament (3 -4) weeks and represent the most important periods in which the activation of all the contents of the annual training and configured to reach the ideal in the aspects of physical, technical and physiological changes taking place in this period in parallel with the psychological characteristics therefore be a critical period The coach has a fear that the gradual decline in the loss of athletes will affect important training characteristics such as physical, physiological and artistic aspects, noting that there is an opinion that says it is possible for athletes to retain their abilities for a certain period if the gradual decline in intensity or

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training volume is made . (Contreras, 2013) That the use of the capabilities that can be provided in order to follow appropriate to meet the steps needs landing gradual and achieve the goals of training plans without the characteristics of the training of an athlete loss , which lasted a period of time before the tournament , " Based on these data should be training programs leading up to the tournament through a gradual without landing design that loses athlete what he acquired from the training mission properties after a period of excessive training legalized that may have been optimum fit with the sport weightlifting that rely heavily on excessive training optimum above optimum , it is important to avoid workouts hard before the tournament in order to protect the players from injury and stress than It has negative effects during the championship, so the researchers believe that the intensity in the period of gradual decline to one peak per week to be (100%) while preserving the specificity of weightlifting through the speed of performance. As for the training volume, the researchers believe that reducing the size can become 60 % of the maximum size and in some cases not exceed a decline from 30% of the total volume and reduce the total size is by reducing training doses as well as it should monitor the Changes taking place in the body's organs and organs, which provide the body with energy, must therefore be taken into consideration

The research problem: The research problem is represented in the great effort that the players face during the tournament, which causes their fatigue due to overloading the training stresses before the competition, which leads to failure to achieve achievement, failure of the lifts, and sometimes to injure.

The aim of the study: to prepare a curriculum based on the principle of graduation, with a decrease in intensity and training volume, and the effect of some physical and physiological variables and achievement for the young lifters The research imposed the approach prepared by researchers that affects some of the physical, physiological and achievement abilities of young lifters

Methodology

Method and tools: Researchers experimental method used to suitability nature of the goal of designing totals experimental with pre - test and post either the research community represents the Quartet of the National Center for the care of sports talent and chose the researchers sample consisting of (6) power lifters randomly Reconstruction (16-17 years) participating in Iraq Championship schools specialized as The researchers prepared the training curriculum in line with the nature of the problem through a set of exercises that were employed within the prepared training curriculum taking into account the gradual progression in the components of the training load during the last month of the tournament, which included (4) weeks at a rate of (4) units per week as the highest intensity was reached of the maximum capacity for the quadrant once during the week with regard to the first experimental group. As for the experimental group, the gradual decline was for size only while maintaining the training intensity, and after that the researchers identified a group of physical tests to measure the capabilities that were trained during the curriculum.

Pre-tests: The researchers conducted the pre- tests with the help of the work team represented by some of the trainers of the National Center for the Care of Athletic Talent as well as the researchers. The tests included the achievement test of snatch, net, squat, front and back, vertical jump up, medical ball throw and aerobic ability test.

The researchers performed equivalences on two experimental research samples:

Table (1) shows the equivalence of the two groups

Variables	Experimental group First		Experimental group the second		Values (t) Calculated	level The error	indication
	s	P	s	P			
Back squatting	87.5	2.236	87.916	3.679	0.237	0.817	Immoral
Squatting in front of me	77.916	1.881	76.166	5.715	0.712	0.492	Immoral
Dead Lift	72.916	1.881	72.5	3.872	0.237	0.817	Immoral
Sargent	36.666	1.366	35.833	2.136	0.804	0.439	Immoral
Kidnapping	62.5	2.236	62.083	1.881	0.349	0.734	Immoral
Nitrate	74.833	2.016	73.333	3.027	1.010	0.336	Immoral
Ability	531.333	8.755	532.333	13.923	0.148	0.884	Immoral

Training course:

The training course prepared by the researchers included a set of special exercises in lifting weights based on 10 exercises in which the method of repetitive and interval training was used in high intensity through which the researchers maintained the training level of the physical abilities and achievement of the

research sample by working in the gradient with a careful drop of intensity and training volume and resorting to use one training summit of the three peaks instead of the week for the first experimental group while the second experimental group , the researchers resorted to reducing the size training goal total exercises used in the training curriculum to maintain the readiness of lifters and avoid injury of the pre - tournament as it has been on 2 group training first used landing In intensity and the second, a decrease in size is used to avoid fatigue that may afflict the tournament player, which leads to a decline in the level.

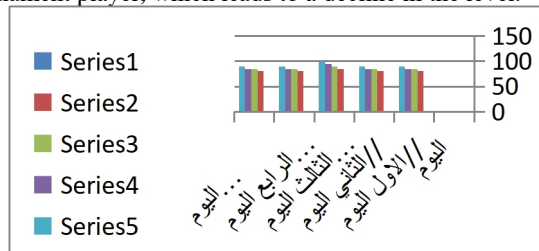
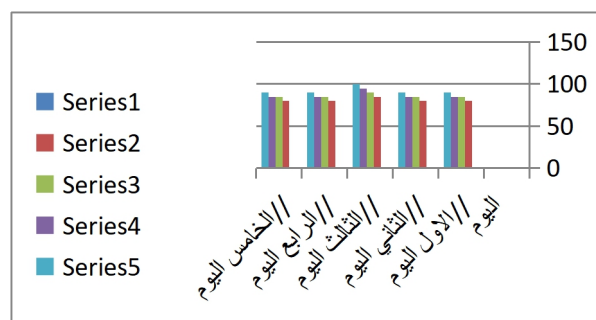


Figure (1) shows the summit in the first week and how to gradually reach one summit during training. As for the second group, the training load sequence was shown in Figure (2)



Results:

Table (2) shows the mean, standard deviations, difference of arithmetic mean, standard deviation of variance, and value (t) Calculated and the error level between the pretest and the post test for the first experimental group

Variables	The pretest		Post test		Arithmeti c mean For differences	standard deviation For differences	Values (t) Calculate d	level The erro r	indicatio n
	s	P	s	P					
Back squatting	87.5	2.236	96.25	2.091	8.75	3.061	7	0.001	moral
Squatting in front of me	77.916	1.881	85.833	2.041	7,916	2.457	7.889	0.001	moral
Dead Lift	72.916	1.881	81.25	3.061	8.333	2.041	10	0.000	moral
Sargent	36.666	1.366	41.833	1.834	5.166	1.722	7.347	0.001	moral
Kidnapping	62.5	2.236	71.25	1.369	8.75	1.369	15.652	0.000	moral
Nitrate	74.833	2.016	82.5	2.236	7.666	2.658	7.064	0.001	moral
Ability	531.333	8.755	685.666	7.685	154.333	5.680	66,551	0.000	moral

Through Table (2) it becomes clear that there are significant differences in all variables and the researcher attributes this to well-prepared exercises according to the scientific foundations through which the

researchers took care of the cautious drop in training intensity from three peaks to one summit while maintaining the highest peak of the lifters as well as the training volume This is what gave relief to the lifters during the time of performing the exercises and this is what I eat (**Omose, 1999**) "The gradient in the exercise creates a state of continuous increase in the physiological processes of adaptation, physical and skill and then raise the level of performance" adds (**Campos, 2002**) "Some research has shown that lifting heavy weights leads to greater gains in strength . In addition, overtraining and fatigue that may afflict the athlete as a result of excessive training and lack of consideration for the proximity of competition, which sometimes brings negative results somewhat that, may cause injury to the athlete or not being able to achieve an achievement

Table (3) shows the mean, standard deviations, difference of arithmetic mean, standard deviation of variance, and value (t) Calculated and the error level between the pretest and the post test of the second experimental group

Variables	The pretest		Post test		Arithmetic mean For differences	standard deviation For differences	Values (t) Calculated	level The error	indication
	s	P	s	P					
Back squatting	87.916	3.679	91.666	3.027	3.75	2.091	4.391	0.007	moral
Squatting in front of me	76.166	5.715	80	4.743	3.833	2.041	4.6	0.006	moral
Dead Lift	72.5	3.872	75.833	3.027	3.333	1.290	6.324	0.001	moral
Sargent	35.833	2.136	37.833	2.041	2	0.632	7.745	0.001	moral
Kidnapping	62.083	1.881	65	1.581	2.916	1.881	3.796	0.013	moral
Nitrate	73.333	3.027	75.416	2.922	2.083	1.020	5	0.004	moral
Ability	532.333	13.923	614.833	8.658	82.5	19.449	10.389	0.000	moral

By looking at the results of the second group in Table (3), we find that all were intangible, and the researchers attribute that to the used training method that was based on scientific foundations while taking into account the cautious descent in the number of iterations of each exercise while maintaining the intensity of the highest exercise as well as maintaining the three peaks In one week, which led to achieving positive results, and this is what went to him (**Brain, 1988**) " The increase in muscle strength according to the exercises used works to develop the efficiency of the nervous and muscular systems for the purpose of performing fast and strong movements, and this gives them the preference in performance" .

In addition, reducing the number of iterations while maintaining the highest achievement of the athlete in the exercise gives the athlete an advantage in maintaining his athletic level and development in a center during this period preceding the competition and it is considered as tests for the level of the weight in a way that accompanies training continuously and this is confirmed by (**Ajan, 1988**) "These exercises also show the control tests for the lifters as well as our need for additional or complementary exercises to develop the muscular strength that is closely related to the results of the traditional lifts. " This mechanism in training can be used in training for continuous knowledge of the level of athletes.

Variables	Experimental group First		Experimental group the second		Values (t) Calculated	level The error	indication
	s	P	s	P			
Back squatting	96.25	2.091	91.666	3.027	3.050	0.012	
Squatting in front of me	85.833	2.041	80	4.743	2.766	0.020	
Dead Lift	81.25	3.061	75.833	3.027	3.081	0.012	

Sargent	41.833	1.834	37.833	2.041	3.569	0.005	
Kidnapping	71.25	1.369	65	1.581	7.319	0.000	
Nitrate	82.5	2.236	75.416	2.922	4.714	0.001	
Ability	685.666	7.685	614.833	8.658	14.986	0.000	

If we look at Table No (4), we will find that the first experimental group that used the gradation by descending in the number of peaks at the expense of the iterations that were descended in the second experimental group at the expense of stress, we will find that it achieved better results than the second experimental group and the researcher attributes this superiority to the importance of giving rest Sufficient, through which energy sources are returned to sports and a sufficient period for muscle building, as well as maintaining the components of the training load in a manner appropriate to the exerted effort and the adoption of gradual loading leads to positive results and this is what was confirmed (*Giechaskiel, 2018*) Whatever the training program, the progressive overload principle is the most important to ensure the achievement of results is usually done by increasing the weights after a certain number of iterations . In addition, the appropriate sequence of repeating exercises in a scientific manner gives preference to the athlete and this is what went to him (*Stone, 1999*) "An appropriate sequence of repetition of exercises produces superior results and not just the amount of work or the number of weights lifted ".

Exercises used
Super Squight + Back Squat Snatch
Klein is seated
Fixed gear + split gear
Back squatting
Fixed kidnap + beard kidnapped
Clean Seated + Jerk
Bash press in front of me + split
Pull Clen
Half squatting in front of me + preparatory
Fixed snatch from the ground
Fixed clean + seated clean
Jerk split off the suspender

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