The Impact of Weight Training on the Defensive Performances for the Sitting Volleyball Players (Amputees)

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Abstract: The research aims to identify the effect of weight training on the defensive performances of the volleyball players physically disabled seating. The researcher followed the experimental method using two sets, one pilot and the other officer and the sample was of 12 volleyball physically disabled seating players. Results indicated that weight training had a positive impact on the muscle strength of the arms and renderings defense with volleyball seating players (amputees), weight training have a positive impact better than a conventional program on muscle strength of the arms to the players volleyball seating (amputees). It is recommended to use weight training in the training of volleyball seating players (amputees) because of its positive effect on muscle strength of the arms and defense performances.

Key words: Weight training • Defensive performances • Volleyball players sit

INTRODUCTION

The sitting volleyball of activities very difficult as supports access to the level reached a high of performances defense on the availability of the capacity of skill high, and this can only be achieved through the development of physical abilities especially the arm's muscle power. The law of sitting volleyball is considered the primary reference indicates that moving without the ball and participate in the games are of the most important things in the game of sitting Volleyball Players for physically handicapped. As they sit on the ground does not mean that these players are unable to move, as the ball and the direction of movement of the variable forces the players to move aside or forward or return back. The movement as quickly as possible to get the ball methods agreed by using hands effectively at any time during the game, especially that the area of the pitch more difficult performance shall be off on a rectangular shape (10 m length × 6 m width), which requires to make muscle strength more by the arms for the performance of motor skills. Defensive appears an important element of force in their various forms, like power top, power deals as soon as the "capacity" as one of the primary determinants of program planning the physical setup in the volleyball seating and are defensive moves, both in the front line or rear difficult as depends where the player on the muscle strength of the arms to move from one place to another as a defense for the pitch or the defense of transmission in the opposing team and are defensive moves in the directions (in front of - behind the - right - north), which depend on the arms in the transition, which relies in its tracks motor to pay frequent arm and Here emerged the importance of developing the ability to upgrade the muscle defensive performance defense which requires great ability of the neuromuscular system of the arms to overcome the resistance requires a high degree of speed of contraction necessary for this type.

Through previous experience of the researcher in the field of training of disabled mobility (amputation) of the volleyball seating, he has noted the difficulties facing the players in the move to defend the pitch or the defense of transmission, which have a negative impact on the outcome of matches and this is what was called the researcher to develop a training program using weights to develop muscular power of the arms, which could lead to improved payment arm and thus lead to improve the performance of defensive performances of the players in front and rear lines.

Research Objectives:

- Identifying the effect of weight training on the development of muscle strength of the arms and the level of defensive performances in volleyball players physically disabled seating (amputees).
- Identify the differences between measurements for the two experimental and control groups on the development of muscle strength of the arms and the level of defensive performances in volleyball physically disabled seating players (amputees)
- Understand the rates of improvement to the exercises and weightlifting exercises, traditional muscle power of the arms and the level of defensive performances in volleyball players physically disabled seating (amputees) of the training program proposed for the variables under discussion.

Research Hypotheses:

- There are significant differences between pre and post test for the two experimental and control groups on the development of muscle strength of the arms and the level of defensive performances in volleyball players physically disabled seating (amputees) for telemetric.
- There are significant differences between measurements for the two experimental and control groups on the development of muscle strength of the arms and the level of defensive performances in volleyball players physically disabled seating (amputees) in favor of the experimental group.
- There are differences in the rates of improvement to the exercises and weightlifting exercises, traditional muscle power of the arms and the level of defensive performances in volleyball players physically disabled seating (amputees) of the training program proposed for the variables under consideration for the experimental group.

MATERIALS AND METHODS

Research Methodology: Follow the researcher experimental method using two sets, one pilot and the other officer that suit the nature of this research.

Research Sample: Sample selection was intentional. Their number was 18 players from training centre of persons with disabilities in Damietta governorate were selected. 12 in sitting Volleyball Players of physically handicapped were randomly assigned to conduct the baseline study and the 6 remaining players were to conduct surveys. There was a harmony between members of the research sample in age, height and weight and the variables under consideration and it became clear that the torsion coefficients of a sample search in the selected variables may be limited to ±3 which shows the homogeneity of the sample in these variables.

Data Collection Tools:

Equipment and Measuring Instruments:

- Arstamitr device to measure length in centimeters.
- Medical balance to measure weight in kilograms.
- Medical balls in different weights.
- Wooden boxes of different heights (10 cm) to (20) cm.
- A multi-weights, weights traditional.

Tests used:

A - Tests of the maximum power of the arms
- Raise the weight arm in front of the head
- Push of medical ball as far away as 1 kg

Assess the Level of Defensive Performances

Weight Training

Program period: 12-week duration of the program aims to develop the maximum strength of the muscles of the arms using weights of 3 units per week.

The Basis for Formulating Training Weight Lifting:

- Warming up at the beginning of the training module and calm in the end.
- That it suits used in the training program with physical activity so that the specialist on track with similar motor movements in defense of the sitting volleyball.

The Severity of Weight: Intensity used for training muscular power of the arms using weights training ranged between 75 and 95%, has been strongly gradient weight weekly, where the increase in altitude and horizontal distances between them and increase the weights of the medical balls.

The Load:

- Ranged in size from the weight from (4:10) iterations of the exercise and one from (4:6) repetitions per set and the performance of training time ranged from one from (4:10) seconds.

Rest Periods, Intra: Ranged rest periods between them from (30:90) seconds between each exercise and another and (2:5) seconds between the groups.
The Contents of the Training Facility Weight:

- Warm-up exercises including elongation and flexibility to all parts of the body.
- Weight lifting exercises proposed and include 8 exercises.
- Final part: exercises to calm and relax

Application Program: The researcher proposed the application of weight training to develop the capacity for muscle, 12 weeks in the period from 14/4/2010 to 5/7/2010 by 3 units per week a time of 60 minutes for each training module.

Dimensional Measurements: The researcher conducted dimensional measurements of research variables on 6/7/2010 after the completion of the application of weight training.

RESULTS AND DISCUSSION

DISCUSSION

Table 1 shows the existence of significant differences between pre and post test experimental group in muscle strength of the arms and the level of defensive performances and for the sake of telemetric. The researcher attributed these differences between pre and post tests to the appropriate training loads for the exercises weight to the level of the sample as taken into account the principle of individual differences in terms and then develop a training program for each player also took into account the practical foundations of the programs weight in terms of intensity, size, rest periods, intra-and continuity and progression and privacy, which helped the development of maximum strength of the muscles of the arms. This is consistent with previous studies [1-3].

Table 2 shows the existence of significant differences between pre and post test of the control group in muscle strength of the arms and the level of renderings of

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Table 3: Differences between measurements for the two experimental and control groups in tests of muscle strength of the arms and the level of defensive performances. $n_1 = n_2 = 6$

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Table 4: Differences between the rates of improvement between the two sets of measurements experimental and control groups in tests of muscle strength of the arms and the level of defensive performances.

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<th>Officer percentage</th>
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From Table 3, there are significant differences between measurements for the two experimental and control group in muscle strength of the arms and the level of defensive performances for the experimental group. This is because there were differences between measurements to the impact of the weights. This is consistent with the opinion of some researchers [2-4].

Table 4 shows differences in the rates of improvement measurements for the two experimental and control groups in tests of muscle strength of the arms and the level of renderings of defense and hit ratios improving in pre and post tests ranged between 24.78% and 32.92% for the control group and ranged between 61.65% and 66.26% for the experimental group, as was the difference in the percentage of improvement between 33.34% and 40.40% for the experimental group and because the researcher these results to the positive effect of weight training which demonstrates the high rate performance of the maximum strength of the players. Where weight training is directed to the development of maximum strength of the muscles primarily engaged in the skills in question has resulted in elevating the level of defensive performances [5].

Also the researcher attribute these differences to the impact of weight training (a positive impact) on improving the capacity of the muscles of the arms and thus led to higher levels of performance renderings defense where they work. Weight training reduce the time of roller bearings during upgrading push hands, as the researcher finds that the renderings defensive need in the performance of the momentum arm as must be strong and fast without stopping and this is what makes the development of muscle strength, which consists of a group of exercises similar in the course of motor with the movements required in the study and performance, strength and speed which helped the performance of defensive moves in a proper and track motor correct strongly and quickly, which helped to improve level renderings defense and because of the gradual improvement in muscular power and the level of performance renderings defense to weight training under discussion, which included the development of maximum strength of the arms where the lead of this type of training in the growth rates of muscle power. These results are consistent with the results of previous studies [1, 6-12].

### CONCLUSION

- Weight training has a positive effect on muscle strength of the arms and defensive performances in volleyball players physically disabled seating (amputees).
- Weight training have a positive impact the program is better than the traditional renderings of defensive muscle strength of the arms to the volleyball players physically disabled seating (amputees).

### Recommendations:

- The use of weight training in the training of volleyball players physically disabled seating (amputees) to have a positive effect on muscle strength of the arms and defensive performance.
Conducting studies using weight training in the training of sitting Volleyball Players of physically handicapped (amputees) for the development of muscle strength of the arms and offensive performance.

REFERENCES


