



EFFECTS OF SELECTED PHYSICAL EXERCISES ON SPEED AND STRENGTH AMONG SUB JUNIOR VOLLEYBALL PLAYERS IN VISAKHAPATNAM DISTRICTS

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Abstract

The purpose of the study was to find out “Effect of Physical exercise on speed and strength.” To achieve this purpose 30 volleyball players in Effects of Selected Physical Exercises on Speed and Strength among Sub Junior Volleyball Players in Visakhapatnam Districts. Were randomly selected as subjects. The following physical exercises were selected for giving three months training for 30 subjects. Criterion variable speed were selected and measured by using 50 Mtr run and strength were selected and measured by using Broad jump. It was used for pre test and post test. The result of all performance components of post test indicates improvement in Speed It shows the effect of three months Physical exercise training. On the basis of the study and with the limitation, the physical exercises training programme develops speed and Strength.

Keywords:

Physical Exercises, Speed, Strength, Volleyball players.

INTRODUCTION:

In the past few decades, physical education instructors and sport coaches have been heavily influenced by the opinion that feedback provided to learners is necessary for learning and for the acquisition of physical exercises. Feedback is considered an essential factor that may influence physical and motor learning because it helps the learner in evaluating his/her performance and in identifying his/her development in achieving the ultimate goal. The effect of resistive type exercise on health status have been largely overlooked. Traditionally, strength training has been as a means of improving muscular strength and endurance (muscle mass) and power, but not as a means for improving health.

Sports training are a systematic process extending over a long period. For best results the system of training has to be based and conducted on scientific facts and lines. Sports training are done for improving sports performance. The sports performance is not the product of one single system or aspect of human personality. (Hardayal Singh, 1991) physical exercise is a popular form of training used to improve athletic performance.

The expert committee of the World Health Organization described physical fitness as “the ability to undertake muscular work satisfactorily.” Physical fitness is the capacity to early out, reasonably well, various forms of physical activities, without being unduly tired and includes qualities important to the individual’s health and well-being. Every person has a different level of physical fitness which may change with time, place of work, situation and there is also an interaction between the daily activities, and the fitness of an individual, the point if where to put the level of optimum fitness. From the physiological point of view physical fitness may say to be ability at the body to adopt and recover from strenuous exercise. Speed like strength and endurance is a conditional ability. Speed abilities are trainable to a very limited extent due to its marked dependence on the functioning of the central nervous system. important to be specific so that the athlete and coach understand which specific aspects of sports performance they are training. The definition of speed from a scientific standpoint is



simply distance time, but this is a rather simplistic view of speed. A more accurate definition of speed is this: speed is the ability of an athlete to move as fast as possible, through the optimal range of motion, in a deliberate and intentional manner, in a particular direction. Speed is not just measured on how fast a person is either; there are several components of measurement that give a complete picture of an athlete's speed.

STATEMENT OF THE PROBLEM:

The purpose of the study “Effects of Selected Physical Exercises on Speed and Strength among Sub Junior Volleyball Players in Visakhapatnam Districts”.

METHODOLOGY:

We find out “Effect of Physical exercise on speed and strength.” To achieve this purpose 30 volleyball players in Effects of Selected Physical Exercises on Speed and Strength among Sub Junior (boys) Volleyball Players in Visakhapatnam Districts. Were randomly selected as subjects and age group is 12 years to 15 years between. The following physical exercises were selected for giving three months training for 30 subjects. Criterion variable speed were selected and measured by using 50 Meters run and strength were selected and measured by using Broad jump. It was used for pre test and post test. The result of all performance components of post test indicates improvement in Speed It shows the effect of three months Physical exercise training. On the basis of the study and with the limitation, the physical exercises training programme develops speed and Strength.

Selected Tests following like:

Table 1: Selection of the Variables the Physical fitness variable selected for the present study will be speed and strength. The test items and Measurements.

S. No	Physical fitness Components	Test Items	Measurements
1	Speed	50 Meters Run	Record two trials average to the nearest 0.1 and record as the criterion score.
2	Strength	Standing Broad Jump	

In the present study single group design procedure was followed. A group of 30 volleyball players sub juniors players in Visakhapatnam district. The selected subjects were under gone three months physical fitness training. The researcher was adapted Pre-test and Post-test procedure to see the differences. Collection of data To asses Pre-test and Post-test effect of physical exercise Training on speed and Strength was assessed by t- test. T-test was applied to assess the significant difference in mean score of Pre- test and Post- test.

Analysis Of the Data:

The purpose of the study was to see the Experimental Effect of selected physical exercises on speed and strength among sub junior volleyball boys players age group 12years to 15 years. The obtained data was calculated as per the norms using such as Mean, Standard deviation and t value for the obtained pre-test and post-test.

Table -2: Obtained data was calculated as per the norms using such as Mean, Standard deviation and t value for the obtained pre-test and post-test physical exercises on speed among sub junior volleyball players.

S.No	Physical fitness Components	No. Subjects	Name of the test	Mean	SD	"t" Valu	"p" Value
1	Speed	30	Pre-Test	20.86	2.12	3.15	1.96*
			Post Test	19.43	1.98		

The level of significant 0.05=Table value=1.96*

Results and Discussion:

Table no 2 indicates that the t value is more than the table value that is 1.96, hence it is significant. The pre-test Mean value is 20.86 and the post-test Mean value 19.43. The post-test Mean value is less than pre-test Mean value. It shows significant improvement in the speed performance of sub junior volleyball players after three months physical fitness training.

Table -3 : Obtained data was calculated as per the norms using such as Mean, Standard deviation and t value for the obtained pre-test and post-test physical exercises on strength among sub junior volleyball players.

S.No	Physical fitness Components	No. Subjects	Name of the test	Mean	SD	"t" Valu	"p" Value
1	Strength	30	Pre Test	6.86	1.12	1.15	0.36*
			Post Test	7.25	1.68		

The level of significant 0.05=Table value=0.36*

Results and Discussion:

Table no 3 indicates that the t value is more than the table value that is 0.36*, hence it is significant. The pre-test Mean value is 6.86 and the post-test Mean value 7.25. The post-test Mean value is greater than pre-test Mean value. It shows significant improvement in the strength performance of sub junior volleyball players after three months physical fitness training.

Figure 1: showing mean value of the pre-test and post-test for speed performance physical exercises on speed among sub junior volleyball players.

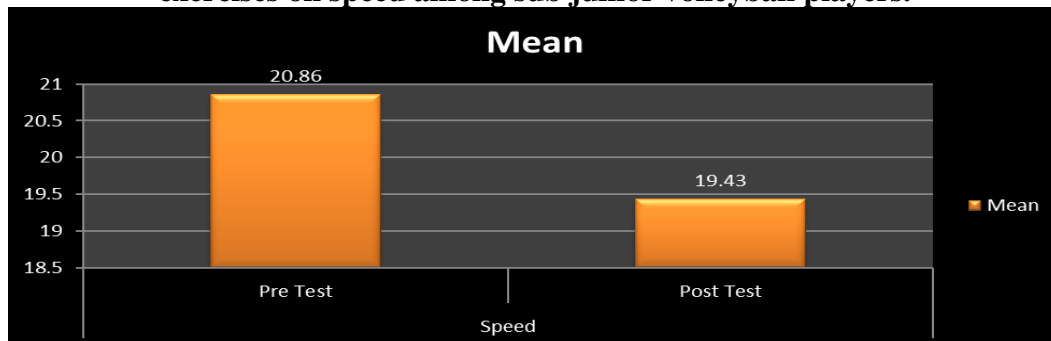
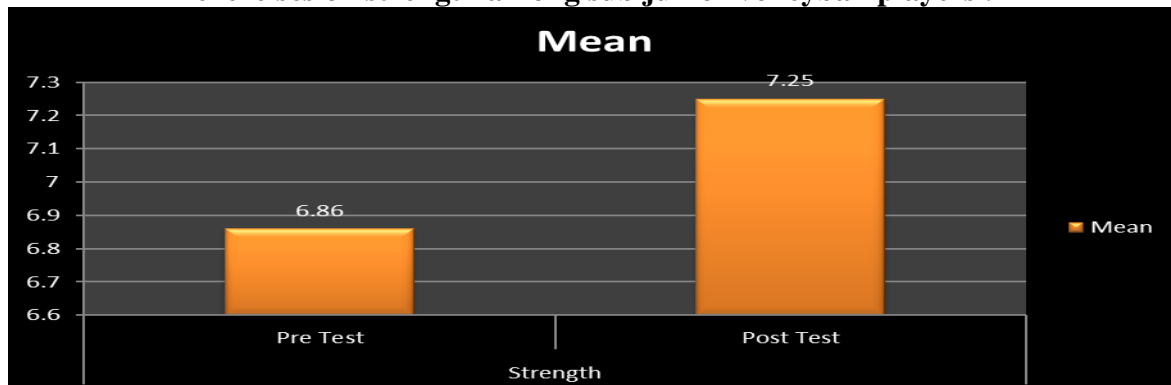


Figure 2: showing mean value of the pre-test and post-test for strength performance physical exercises on strength among sub junior volleyball players .



CONCLUSION:



The results of this study demonstrated that, Physical Exercises speed and strength training has significant impact on speed and muscular strength of sub junior volley players. It is also concluded that due to the physical exercises there is an improvement in the performance of volleyball skills. Hence it is recommended that the physical exercises training must be given to the volleyball players to improve their performance. Similar studies can be conducted on others events in sports and games.

Recommendations:

It is recommended that Sub juniors Volleyball Players must be given good training for speed and strength for the development of performance in sports. Similar studies can be conducted on different sports and games.

REFERENCES:

1. Hardayall Singh, Science of Sports Training. (New Delhi:D.V.S. Publication,1991), p.14.
2. Clarke, H. Harrison (1978). Application of Measurement to Health and Physical education, Englewood Cliffs, New jersey:Prentice Hall Inc.
3. Zhao, D.C., and Ji, C.Y. (2005). Analysis of motor performance status in students of han nationality in fifteen provinces in China, Chinese Journal of Preventive medicine, 39(6):385-387.
4. Antan (1993). Comparison of selected physical, Physiological and pshychol;ogical variables between Nicobar and karikal School boys in Jawahar Navodaya Vidyalaya, Unpublished thesis, Alagappa University, karaikudi.
5. Chen, J.L., Unnithan, V., Kennedy, C., and Yeh,C.H. (2008). Correlates of physical fitness and activity in Taiwanese children. International nursing review, 55(1):81-88.
6. [Www.Fivb.Com](http://www.fivb.com),FIVB Coaches Manual.
7. Baechle, T. R., & Earle, R. W. (2000). Essentials of strength training and conditioning: National strength and conditioning association (2nd ed.). Champaign, IL: Human Kinetics.
8. David K. Miler. And T. Earl Allen.1982. Fitness a life time commitment. Surjeet publications, Delhi:pp.4.
9. Andrews Barry Craig, 1976, physical fitness values of Canadian south African school boys. Tsimeas, P.D. and N. Tsifilis. 2005 Does living in urban or rural settings effect aspects of physical fitness in children? An allometric approach. British journal of Sports Medicine, 39:671-674.
10. Tanva Cassidy (2007), Understanding Sports Coaching, London : Routledge.
11. Uppal A. K. (2001), Principles of Sports Training, New Friend Publications, New Delhi.
12. Bompa, Tudor O., Periodization: Theory and Methodology of Training. Champaign, illinois: Human Kinetics Publishers, 1999.
13. Application of Simulation and Virtual Reality to Physical Education and Athletic Training Department of Physical Education, College of Education, Zhejiaing University Hangzhou, Zhejiaing, 310028, China.
14. Ebben, W. P. (1998). A Review of Football Fitness Testing and Evaluation. *Strength and Conditioning Journal*, 42-46.
15. Barry A. Franklin, (2000) Exercise and Sports Sciences, Lippincott Williams & Wilkins philadelptna, 112 -113.
16. Charles A. Bucher, (1983) Foundation of physical education and sports 9th edn. Saint Louis, the C.V. Mosby Company, 273.
17. Dupont., et al., (2004), 'The effect of in-season, high-intensity interval training in soccer players',*Journal Strength Cond Res.* 18(3):584-9.
18. Jovanovic., et al., (2011). 'Effect of speed, agility, quickness training method on power performance in elite soccer players' *J Strength Cond Res.*25(5):1285-92.