



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (RJIF): 5.38
IJPESH 2022; 9(6): 247-250
© 2022 IJPESH
www.kheljournal.com
Received: 13-08-2022
Accepted: 14-09-2022

V Arundathi

M.Phil. Scholar, Department of Physical Education, Bharathiar University, Coimbatore, Tamil Nadu, India

Dr. T Radhakrishnan

Professor, Department of Physical Education, Bharathiar University, Coimbatore, Tamil Nadu, India

Effect of pre-season training on selected physical fitness and skill performance of high school volley ball girls

V Arundathi and Dr. T Radhakrishnan

Abstract

The purpose of the study is to find out the effect of pre-season training on selected physical fitness and skill performance variables of high school volley ball girls in Pudukkottai District. To achieve this purpose thirty girls Volley ball high school level players were selected and they were divided into equal groups namely Experimental group (Pre-season training) and Control group. The pre session training group was treated with interval Training, resistance training, circuit training, agility and plyometric training in the morning session. Ball drills, functional training and tactical training was given in the evening session, five days a week for a period of six weeks. The obtained pre and post test data on selected physical fitness and skill performance variables were analysed using ANCOVA. The findings of the study reveal that pre-session training group significantly improve in selected physical and skill performance variables of high school level girls volley ball players.

Keywords: Preseason training, speed, endurance, agility, explosive power, strength, service, volleying performance, volleyball players

Introduction

Sports have become as competitive as other fields in the world. In ancient times, our ancestors exhibited the extraordinary talents in terms of physical activity. But now it has become completely professional. Somehow or other irrespective of age the human race is involved in different kinds of sports either for recreation or competition. In the present world, Sports have become extremely competitive. It is not mere participation or practice that makes an individual victorious. Sports life is affected by various factors like physiology, biomechanics, sports training, sports medicine, sociology and coaching, computer application and psychology and so on.

To achieve top level performance in the international arena one has to have a plan and systematic execution. To win medals, in the Olympics, there should be spotting of talent, systematic and scientific method of training, competitive exposure, etc.

Volleyball is a sport played by two teams consisting of 12 players each on a playing court, divided by a net. The object of the game is to send the ball over the net in order to ground it on the opponent's court and to prevent the same effort by the opponent. The team has three hits or contacts to return the ball.

Volleyball is a dynamic, fast-paced game. The purpose of systematic training for volleyball is not to build big muscles, but to develop the physical attributes necessary to improve a player's performance. So strength training is very important to volleyball and should not be developed independently of other abilities such as agility, quickness and endurance. Developing volleyball skills like, jumping, landing skills allows them to elevate quicker and higher in order to take better shots themselves and to block more of their opponent's shots. To develop the overall fitness and skill performance in the present study the Preseason training includes interval, resistance, circuit, plyometric and agility training in the training session. This training may be the shows to develop selected physical fitness and skill ability of higher secondary level girls volley ball players.

Corresponding Author:

V Arundathi

M.Phil. Scholar, Department of Physical Education, Bharathiar University, Coimbatore, Tamil Nadu, India

Statement of the problem

The purpose of the study was to find out the effect of pre-season training on selected physical fitness and skill performance of high school volley ball girls.

Hypothesis

It was hypothesized that practice of pre-season training may significantly improve the selected physical fitness and skill performance of high school volley ball girls.

Delimitations

1. This study was delimited to thirty Govt. Hr. Sec. School, Keeramangalam and Vadakadu high school. Volleyball players of in Pudukkottai district and their age was ranged from 13 to 15 years.
2. The study was delimited to the following physical fitness and skill performance variables namely Speed, Endurance, Agility, Leg Explosive power, Strength, Service and Volleying performance.

Methodology

To achieve the purpose of this study thirty (N-30) high school volley ball girls were selected from Government Higher Secondary School, Keermangalam and Vadakadu in

Pudukkottai District, Tamil Nadu as subjects. The selected thirty (N-30) subject were divided in two equal groups (n-15). Group I Pre-session training group the other was Control group. Both groups were tested on selected variables and the score were carefully recorded in their respective units as pre-test score. After pre-test Group I underwent pre-session training namely in travel, resistances, circuit, agility and plyometric training in the morning session. In the evening session ball drills, functional training and tactical practices were given five days a week for a period of six weeks. Were as the control group did not underwent any specific training. After six weeks of training both groups were tested again on selected variables (Speed, Endurance, Agility, Leg Explosive power, Strength, Service, volleying performance) and the score were carefully recorded in their respective units as post-test score. The pre and post test scores were analysed with analysis of co-variance. The obtained results were analysed and presented in the form of tables.

Results of analysis of variance on pre-test means

In the initial data analysis of variance ('F' test) was applied to find out the significance of mean difference in the pre-test among the two groups namely Pre-Session Training (Group - I), and Control Group (CG)

Table 1: Analysis of variance on pre-test means among pre-session training group and control group

S. No.	Variables	Source of variance	Sum of Square	df	Means Square	'F' ratio
1	Speed	Between Sets	2.31	1	2.13	0.74
		Within Sets	80.09	28	2.86	
2	Endurance	Between Sets	104083.33	1	184083.33	4.17
		Within Sets	136345.47	28	44154.76	
3	Agility	Between Sets	0.00	1	0.00	0.00
		Within Sets	6.49	28	6.49	
4	Leg explosive power	Between Sets	0.00	1	0.00	1.16
		Within Sets	0.06	28	0.00	
5	Strength	Between Sets	0.06	1	0.06	0.61
		Within Sets	2.96	28	0.11	
6	Service	Between Sets	19.20	1	19.20	0.83
		Within Sets	648.67	28	23.17	
7	Volleying performance	Between Sets	80.03	1	80.03	2.66
		Within Sets	843.33	28	30.12	

* Significant at 0.05 level of confidence = 4.20

Table-I reveals the obtained 'F' values on pre-test means among the two groups. The obtained 'F' ratio were 0.74 (speed), 4.17 (Endurance), 0.00 (Agility), 1.16 (Leg explosive power), 0.61 (Strength) and 0.83 (Service). 2.66 (Volleying performance). The obtained 'F' ratio on these variables were not significant since it fails to reach the table value of 4.20 for the degrees of freedom 1 and 28 at 0.05 levels. Based on the result it is inferred that the mean differences among two groups of Preseason and Control Group on selected physical

fitness and skill performance variables of High school Volleyball Girls used in the study before start of training are found to be insignificant. Thus this analysis confirms the random assignment of subjects into two groups is successful.

Results of analysis of co-variance on post-test means

In the analysis of variance on post-test means, 'F' test was applied to find out the significance of mean differences in the post-test among the two groups namely Pre-Session Training (Group - I), and Control Group (CG)

Table 2: Analysis of variance on post-test means among pre-session training group and control group

S. No.	Variables	Source of variance	Sum of Square	df	Means Square	'F' ratio
1	Speed	Between Sets	2.25	1	2.25	6.80*
		Within Sets	9.25	28	0.33	
2	Endurance	Between Sets	560333.33	1	560333.33	13.89*
		Within Sets	1129333.33	28	40333.33	
3	Agility	Between Sets	16.19	1	0.58	11.70*
		Within Sets	15.53	28	0.55	
4	Leg explosive power	Between Sets	0.03	1	0.03	10.96*
		Within Sets	0.08	28	0.00	
5	Strength	Between Sets	7.28	1	7.28	40.69*
		Within Sets	5.01	28	0.18	
6	Service	Between Sets	163.33	1	163.33	10.38*

		Within Sets	440.53	28	15.73	
7	Volleying performance	Between Sets	132.30	1	132.30	6.26*
		Within Sets	591.87	28	21.14	

* Significant at 0.05 level of confidence = 4.20

Table-II reveals the obtained 'F' values on post-test means among the two groups. The obtained 'F' ratio were 6.80 (speed), 13.89 (endurance), 11.70 (agility), 10.96 (leg explosive power), 40.69 (strength), 10.38 (service) and 6.26 (volleying performance). The obtained 'F' ratio on these variables were significant since the obtained value was greater than the table value of 4.20 for the degrees of freedom 1 and 28 at 0.05 levels. Based on the result it was inferred that the mean differences of post-test among the two groups of Preseason and Control Group on selected physical fitness and

skill performance variables of High school Volleyball Girls used in the study after six weeks of training were found to be significant.

Results of analysis of co-variance on adjusted post-test means

Since individuals and group differ in their initial scores, analysis of covariance was applied to determine whether the training programmes produced significantly improvements in each variable. The analysis is presented in Table-III

Table 3: Analysis of co-variance on adjusted post-test means among pre-session training group and control group

S. No.	Variables	Source of variance	Sum of Square	df	Means Square	'F' ratio
1	Speed	Between Sets	1.83	1	1.83	5.72*
		Within Sets	8.63	27	0.32	
2	Endurance	Between Sets	115350.63	1	115350.63	22.84*
		Within Sets	136345.47	27	5049.83	
3	Agility	Between Sets	6.43	1	6.43	37.45*
		Within Sets	4.64	27	0.17	
4	Leg explosive power	Between Sets	0.01	1	0.01	52.88*
		Within Sets	0.01	27	0.00	
5	Strength	Between Sets	6.19	1	6.19	48.15*
		Within Sets	3.47	27	0.13	
6	Service	Between Sets	6.49	1	85.19	11.70*
		Within Sets	15.53	27	1.72	
7	Volleying performance	Between Sets	25.90	1	25.90	3.68
		Within Sets	189.85	27	7.03	

* Significant at 0.05 level of confidence = 4.20

Table-III reveals the obtained 'F' values on adjusted post -test means among the two groups. The obtained 'F' ratio were 5.72 (speed), 22.84 (endurance), 37.45 (agility), 52.88 (leg explosive power), 48.15 (strength) 11.70 (service) and 3.68 (volleying performance). Since the observed F value on the selected the variables higher than the table value of 4.20 at 0.05 level of signification for the degrees of freedom 1 and 27, it was found that adjusted post mean difference among the two groups on selected physical fitness variables such as speed, endurance, agility, leg explosive power, strength and skill performance variables of services were found to be statistically significant, were as there is no significant different found in volleying skill. By this it was concluded the selected physical fitness and skill performance variables were influenced by the treatment used in the study. Thus the formatted hypothesis in this study was accepted.

Findings

The findings of the present study are as follows

1. The mean different observed on the selected physical fitness and skill performance variables of high school volley ball girls among the two groups (pre-session training and control group) before the treatment was statistically not significant.
2. The mean different observed on the selected physical fitness and skill performance variables of high school volley ball girls among the two groups (pre session training and control group) after the pre-session training significant improvement was found due to the training.
3. In the adjusted post-test the mean different observed on selected physical fitness and skill performance variables were statistically significant expect volleying

performance

Conclusion

Based on the result of the study it was concluded that the pre-session training includes in travel, resistances, circuit, agility and plyometric training, ball drills, functional training and tactical practices for five days a week for periods of six weeks produced significant improvement on selected physical fitness and skill performance variables (speed, endurance, agility, leg explosive power, strength, services, volleying performance) of high school volley ball girls.

References

1. Arnold John, Roberison Ivan T, Cooper Carry L. Work Psychology (New Delhi, Macmillan India Ltd.); c1996. p. 284.
2. Carl E Willgoose. Evaluation in Health & Physical Education (New York, Scorne – Hail Book Company,); c1961. p. 16.
3. Crow Lester D. Crow Alice Educational Psychology (New Delhi, Eurasia Publishing House (Pvt. Ltd.); c1973. p. 83.
4. Dhanraj Hubert V. Volley ball Men and Women (Madras, Navodaya Press); c1958. p. 26.
5. Gerschiper Weldner. Interval Training Technique; c1964. p. 392.
6. Johnson Barry L, Nelson Jack K. Practical measurement for evaluation in physical education "Third Edition" (Delhi Surjeet Publications); c1988. p. 107-109.
7. Morgan GRE, Adamson GT. Circuit Training (London, G. Bell and Sons); c1957. p. 154.
8. Bater Barry. The Relationship performance on lateral

- change at direction agility test completed Research. 1972;14:88.
9. Choleking Lats. An investigation of the effects of two training programmes on selected respiratory variables of college women completed research in Health, Physical Education and Recreation; c1963. p. 101.
 10. Dinitman George Blouge. Effect of various training programme on running speed, Research Quarterly. 1964;35:56.
 11. George Blough Distman. Effects of variation training programme on running speed. Inter-American University Sen German Furtorico, Research Quarterly. 1959;35:479.
 12. Kamala AK. A comparative study of spiking practice on a 24.8 mts height net with that of a standard me, unpublished Master's Thesis, Madras University; c1982.
 13. Lamelbown Missh. Pre-season Circuit training for Lo Crosse. Athletic Journal; c1974. p. 54, 32.
 14. Martin Henry G. The shooting accuracy of third grade students who practiced shooting at goals less than 10 feet height, completed Research in Health, Physical Education and Research. 1975;17:93.
 15. Nelson Gerold D. Effect of weight training on basketball shooting accuracy. Completed Research. 1964;6:99.
 16. Richard A Berger. Effects of Dynansis and Static training as vertical jumping ability. Research Quarterly. (34 May 1963); c1964. p. 423.
 17. Singh Hardayal. Sports performance and its structure Snipes Journal. 1984;5:4.
 18. Steward Kerry J, Cerin Dernard. Effect of specific physical training and cardio respiratory fitness in children, Research Quarterly. 1976;47:110.
 19. Thompson Push L, Still Lan. Effect of various training programme in speed of swimming, Research Quarterly. 1959;30:479.
 20. Wallin Charles C, Scheneder Jack. Physiological changes in middle aged men following a ten weeks jogging programme. Research Quarterly. 1968;40:600.