

Efficacy of Specific Packages of Volleyball Drills with and without Psych-Up Strategies on Selected Physical Fitness and Playing Ability among Inter Collegiate Volleyball Players

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Abstract

The purpose of the study was find out the efficacy of specific packages of volleyball drills with and without psych-up strategies on selected physical fitness and playing ability among inter collegiate volleyball players. Pre test and post test randomized group design was applied to this research. Forty five college men volleyball players from Chennai city were randomly selected and they were assigned into three equal groups. Each group consisted of fifteen subjects. Pre test was conducted for all the forty five subjects on selected physical fitness variables namely agility, explosive power and playing ability. Playing ability was measured by experts rating. This initial test scores formed as pre test scores of the subjects. Experimental Group I was exposed to specific volleyball drills with psych-up strategies (SVWPS), experimental group II was exposed to specific volleyball drills without psych-up strategies (SVWOPS) and the control group was not exposed to any experimental training other than their regular daily activities. The duration experimental period was 12 weeks. After the experimental treatment, all the forty five subjects were measured on the selected physical fitness and playing ability. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's Post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses. The result of the study reveals that the specific volleyball drills with psych-up strategies training group (SVWOPS) better than specific volleyball drills without psych-up strategies training group(SVWPS) on improving agility, explosive power, and playing ability of the volleyball players.

Key words: Psych-up strategies, Agility, Explosive power and Playing ability.

Introduction

Volleyball players required all round physical fitness, qualities to show a successful performance. They require agility and explosive power to perform well. To enhance successful performance they used to engage various types of physical fitness and psychological training. The present study aim to find out the efficacy of specific packages of volleyball drills with and without psych-up strategies on selected physical fitness and playing ability among inter collegiate volleyball players.

Fitness is multidimensional and involves several sub-components. It is the quality and quantity of these components that determine overall fitness.

Specialization in these components enables players to demonstrate their advanced competence in sport related contexts such as volleyball. Deficiencies in fitness will affect the ability of a player to express technical and tactical abilities during competition. (Gareth Stratton et al., 2004). Physical Fitness is a positive quality. Everybody has some degree of fitness. But it varies from individual to individual and in the same individual from time to time. It is a combination of physical attitudes, social adoptability, emotional stability and mental efficiency.(Yobu.A, 2010).Agility is the ability to change the position and control the movement of the body quickly and efficiently. Agility is central to successful volleyball performance because of the requirements to twist, turn, jump and sprint. (Gupta, 2003).Explosive power is the ability to release maximum force in the vertical jump. The predominant requirement for success in a large number of sports skills is explosive power.(Hardayal Singh, 1991).

Psychology

Psychology as a branch of knowledge is devoted to the study of behavior of human beings. (Aloa, K.O and Adeniyi, W.O, 2008).Sports psychology is a science in which the principle of psychology are applied in a sport or exercise setting. These principles are often applied to enhance performance. (Richard H.Cox, 2002).Psychological skills training is an important to the athlete as physical training, and in most sports success comes from utilizing and maximizing a combination of technical, tactical, physical, and psychological abilities. (Hardy, Jones 1997). They also asserted that these skills are attaining a specific standard of proficiency on a task, usually within a specified time limit can increase performance during competition. (Vealey, 2007 and Williams & Harris, 2001).Psych Up Strategies 'Psych-up' refers to psychological readiness and 'strategy' refers to long term plan. Although having all the physical, physiological aspects elevated and not mental drive, the performance will lag. By practicing psych-up strategy, players can improve the qualities such as self-concept, confidence, determination, optimism, motivation, calmness under pressure, by enhancing mental strength (Loehr, 1986). The basic foundation of psych-up strategies is that mental skills can be learned and developed in a manner similar to physical skills. (Silva and Weinberg, 1984).

Playing ability

In the present study playing ability refers to ability of the player to play volleyball during competitions and was assessed by subjective rating.

Hypothesis

It was hypothesized that the efficacy of specific volleyball drills with psych up

strategies would have a greater significant improvement on selected physical fitness and playing ability than the specific volleyball drills without psych up strategies among inter collegiate volleyball players.

Review of Related Literature

Manoj kumar .A, (2012) conducted the study to find out the efficacy of specific packages of football drills with and without psych up strategies on selected physical fitness, game skill variables and playing ability among inter collegiate football players. Forty five college men football players were randomly selected and they were assigned into three equal groups of fifteen each. Pre and post test were conducted for all the subjects on selected physical fitness variables namely speed, agility, explosive power, flexibility and cardio vascular endurance and game skill variables namely passing, shooting, dribbling, kicking for distance in left leg and kicking for distance in right leg. Experimental group I was exposed to specific football drills with psych-up strategies, experimental group II was exposed to specific football drills without psych-up strategies, and the control group was not exposed to any experimental training other than their regular daily activities. The duration experimental period was 12 weeks. The collected data were subjected to statistical analysis using Analysis of Covariance and Scheffe's Post hoc. The results of the study indicates that the football drills with psych up strategies improved the selected physical fitness variables and game skill variables among intercollegiate football players.

Methodology

Pre test and post test randomized group design was applied to this research. Forty five college men tennis players from Chennai city were randomly selected and they were assigned into three equal groups. Each group consisted of fifteen subjects. Pre test was conducted for all the forty five subjects on selected physical fitness variables namely agility, explosive power, and playing ability. Playing ability was measured by experts rating. This initial test scores formed as pre test scores of the subjects. Experimental group I was exposed to specific tennis drills with psych-up strategies, experimental group II was exposed to specific tennis drills without psych-up strategies, and the control group was not exposed to any experimental training other than their regular daily activities. The duration experimental period was 12 weeks. Psych up strategies (Jacobson. E, 1929) such as preparatory arousal, imagery, self talk, attentional focus and relaxation were included in the study. After the experimental treatment, all the forty five subjects were measured on the selected physical fitness and playing ability. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to statistical analysis using Analysis of Covariance (ANCOVA)

to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant, Scheffe's Post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

Result and Discussion on Agility

Table-I
Computation of Analysis of Covariance on Agility
(Scores in Seconds)

Variables	Test	Specific volleyball drills with	Specific volleyball drills without	Control Group	S.V	S.S	Df	M.S	F
Agility	Pre	12.88	12.85	12.57	B	1.0	2.0	0.5	1.1
					W	19.	42.	0.4	5
	Post	11.43	12.11	12.14	B	4.1	2.0	2.0	5.7
					W	14.	42.	0.3	7*
	Adjusted Mean gain	11.43	12.00	12.16	B	4.2	2.0	2.1	5.9
					W	14.	41.	0.3	8*
		1.43	0.85	0.41					

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22, 3 and 41 (df) =3.21

*Significant

The mean scores of agility of both experimental and control groups were numerically presented in the above Table I. The obtained f ratio for agility was 5.98. Which was more than the tabulated value [F (2,41) = 3.21]. Since the 'F' ratio was found to be significant scheffe's post hoc test was used and presented in Table -II.

Table-II
Scheffe's Confidence Interval Test Scores on Agility
(Scores in Seconds)

Means			Mean Difference	Required C.I
Specific volleyball drills with psych-up strategies(SVWPS)	Specific volleyball drills without psych-up strategies(SVWOPS)	Control Group (CT)		
11.43	12.00	-	0.57*	0.56
11.43	-	12.16	0.73*	0.56
-	12.00	12.16	0.16	0.56

From table II it is proved that specific volleyball drills with psych-up strategies training group (SVWPS) was better than the specific volleyball drills without psych-up strategies training group (STWOPS) and control group (CT) on agility of the volleyball players .

Figure -1

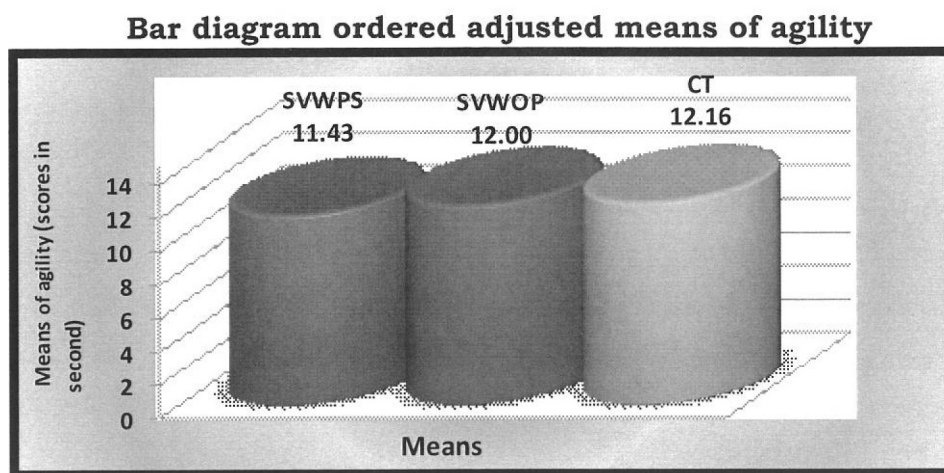


Table- III

Result and Discussion on Agility I
Computation of Analysis of Covariance on Explosive Power
(Scores in Centimeters)

Variables	Test	Specific volleyball drills with psych-up strategies (SVWPS)	Specific volleyball drills without psych-up strategies (SVWOPS)	Control Group (CT)	S . v	S.S	df	M.S	F
Explosive Power	Pre	55.29	52.69	51.6	B	106.	2	53.	2.0
					W	108	4	25.	6
	Post	60.61	56.01	52.40	B	506.	2	253	11.
					W	935.	4	22.	39*
	Adjusted Means	58.93	56.42	53.68	B	188.	2	94.	17.
					W	223.	4	5.4	27*
Mean gain	5.33	3.33	0.80						

Table F-ratio at 0.05 level of confidence for 2 and 42 (df) =3.22, 3 and 41 (df) =3.21

*Significant

The mean scores of explosive power of both experimental and control groups were numerically presented in the above Table III. The obtained f ratio for explosive power was 17.27. Which was more than the tabulated value [F (2, 41) = 3.21]. Since the 'F' ratio was found to be significant scheffe's post hoc test was used and presented in Table -IV.

Table-IV

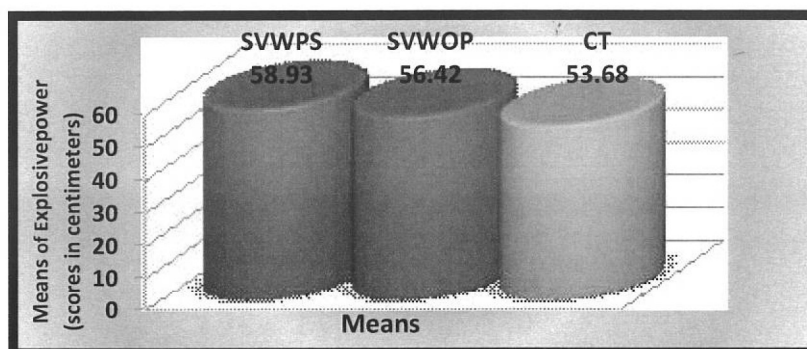
**Scheffe's Confidence Interval Test Scores on Explosive Power
(Scores in Centimeters)**

Means			Mean Difference	Required C.I
Specific volleyball drills with psych-up strategies	Specific volleyball drills without psych-up strategies(SVWOPS)	Control Group (CT)		
58.93	56.42	-	2.51*	2.17
58.93	-	53.68	5.25*	2.17
	56.42	53.68	2.74*	2.17

From table IV it is proved that specific volleyball drills with psych-up strategies training group (SVWPS) was better than the specific volleyball drills without psych-up strategies training group (SVWOPS) and control group (CT) on explosive power of the volleyball players .

Figure -2

Bar Diagram Ordered Adjusted Means of Explosive Power



Result and Discussion on Agility**Table-V****Computation of Analysis of Covariance on Playing Ability
(Scores in Marks)**

Variables	Test	Specific volleyball drills with psych-up strategies(STWPS)	Specific volleyball drills without psych-up strategies(STWOPS)	Control Group (CT)	S.V	S.S	d f	M.S	F
Playing ability	Pre	69.07	70.02	67.41	B	52.44	2	26.22	1.10
					W	100.176	4	23.85	
	Post	75.34	72.27	66.36	B	624.95	2	312.48	14.93*
					W	879.	4	20.	
	Adjusted Means	75.21	71.60	67.16	B	476.06	2	238.03	17.43*
					W	560.02	4	13.66	
	Mean Gain	6.27	2.25	1.05					

Table F-ratio at 0.05 level of confidence for 3 and 42 (df) =3.22, 3 and 41 (df) =3.23

*Significant

The mean scores of playing ability of both experimental and control groups were numerically presented in the above Table V. The obtained f ratio for agility was 17.43. Which was more than the tabulated value [F (2, 41) = 3.21]. Since the 'F' ratio was found to be significant scheffe's post hoc test was used and the presented in Table -VI.

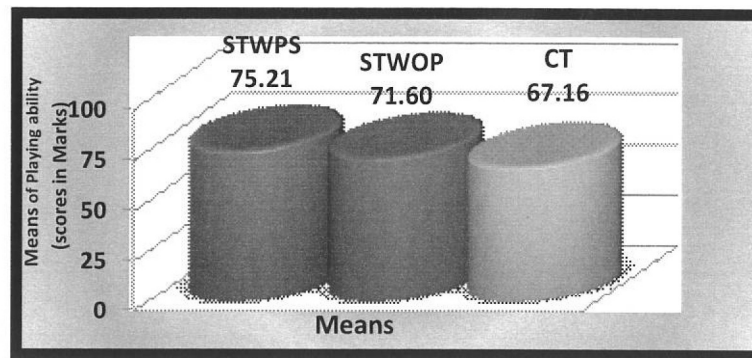
Table- VI**Scheffe's Confidence Interval Test Scores on Playing Ability
(Scores in Marks)**

Means			Mean Difference	Required C.I
Specific volleyball drills with psych-up strategies(SVWPS)	Specific volleyball drills without psych-up strategies(SVWOPS)	Control Group (CT)		
75.21	71.60	-	3.61*	3.43
75.21	-	67.16	8.04*	3.43
-	71.60	67.16	4.43*	3.43

From table II it is proved that specific volleyball drills with psych-up strategies training group (SVWPS) was better than the specific volleyball drills without psych-up strategies training group (SVWOPS) and control group (CT) on playing ability of the volleyball players.

Figure -3

Bar Diagram Ordered Adjusted Means of Playing Ability



Conclusions

1. It was concluded that specific volleyball with psych-up strategies training group (SVWOPS) showed significantly greater improvement on the selected physical fitness variables namely, agility and explosive power than the specific volleyball without psych-up strategies training group (SVWOPS) of the volleyball players.
2. It was concluded that specific volleyball drills with psych-up strategies training group (SVWOPS) showed significantly greater improvement on the volleyball playing ability than the specific volleyball drills without psych-up strategies training group (SVWOPS) of the volleyball players.
3. There was no significant difference between specific volleyball drills without psych-up strategies training group (SVWOPS) and control group (CT) on the physical fitness variable of agility among volleyball players.

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