

Effect Of Skill Based Drills And Plyometric Training On Explosive Power Of The Volley Ball Players

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ABSTRACT

The purpose of study was to find out the effect of skill based drills and plyometric training on explosive power volleyball players. To achieve the purpose thirty male volleyball players were randomly selected as subjects from the Department of Physical Education, Tamilnadu Physical Education and Sports University, Chennai. The subject were divided into three groups each comprising of ten each as experimental-1(Skill based drill training), experimental-II (plyometric training) and control groups. The average age, height, and weight of the experimental group were 17 to 24 years. The experimental group-I and experimental-II had undergone 60 minutes of skill based conditioning three alternate days in a week for eight weeks whereas control group did not participate any type of specific training .the criterion variable confined to this study were explosive power measured by sergeant jump before and after the training programmed . The collect data were statically analysis of co variance(ANCOVA). On the basis of the result , it was found that there was signification improvement on explosive power due to the above said training among volleyball player. Hence, it was concluded from the results that both skill based training and plyometric training were better metal to improve explosive power in terms of vertical. Among the training, skill based training improve much better than plyometric training programmed.

KEYWORDS: Volleyball, Plyometric, Explosive Power.

INTRODUCTION

Volleyball is an interim intent sports that requires players in sports to frequent short bouts of high-intensity exercise, followed by periods of low-intensity activity. (kuntlinger et al., 1987; Polgleze and., Dawson.,1992; Viitasalo et al.,1987). The high –Intensity bouts of exercise, coupled with the total duration of the match (~90 minutes), requires players to have well-developed aerobic and anaerobic galactic (ATP-CP) energy systems. (Viipasalo et al., 1987; hackney, 1993). Skill-based volleyball conditioning methods allows skill development and fitness. This type of conditioning is technique specific and could have complex game like drill with more efficient type of conditioning combining physical development along with technique and mental skills. Athletes can enjoy conditioning drills that are more specific to game situation. Volleyball is a game played with five sets of matches which includes about seventy jumps all over the match with explosiveness so the present study gives the idea of how far the explosive power can be improved without any exhaustion in the training.

METHODOLOGY

The purpose of study was to find out the effect of skill based drills and plyometric training on explosive power volleyball players. To achieve the purpose thirty male volleyball

players were randomly selected as subjects from the Department of Physical Education, Tamilnadu Physical Education and Sports University, Chennai. The subject were divided into three groups each comprising of ten each as experimental-1(Skill based drill training), experimental-II (plyometric training) and control groups. The average age, height, and weight of the experimental group were 17 to 24 years. The experimental group-I and experimental-II had undergone 60 minutes of skill based conditioning three alternate days in a week for eight weeks whereas control group did not participate any type of specific training .the criterion variable confined to this study were explosive power measured by sergeant jump before and after the training programmed. The collect data were statically analysis of co variance(ANCOVA). On the basis of the result , it was found that there was signification improvement on explosive power due to the above said training among volley ball player.

ANALYSIS OF THE DATA

Analysis of covariance on explosive power in terms of the pre and post test scores of skill based training, plyometric and control group have been analyzed and presented in table - 1.

TABLE -1
ANCONA OF SKILL BASED TRAINING, PLYOMETRIC TRAININGS AND CONTROL GROUPS ON EXPLOSIVE POWER IN TERM OF VERTICAL

Test	Skill based group	Plyometric group	Control group	Source of variance	Sum of squares	df	Mean squares	Obtained 'F'ratio	
Pre test									
mean	49.40	53.30	50.60	between	79.80	2	39.90	1.482	
S.D	5.18	6.21	3.89	within	726.90	27	26.92	1.482	
Post test									
Mean	61.90	58.00	51.60	between	540.86	2	270.43	10.26	
S.D	4.81	6.32	3.97	within	711.30	27	26.34	10.26	

[the table values required for significance at .05 level of confidence for 2 and 42 and 2 and 41 are 3.222 and 3.226 respectively]

Test table -I shows that the pre-test mean values on explosive power in terms of vertical of skill based training, plyometric training and control groups are 49.40, 53.30 and 50.60 respectively. The obtained "F" ratio of 1.482 for pre-test scores is less than the table value of 3.222 for df 2 and 27 required for significance at .05 level of confidence on explosive power inn terms of vertical. The post-test mean values on explosive power in terms of vertical of skill based training, plyometric training and control groups are 61.90,58.00 and 51.60 respectively. The obtained "F" ratio of 10.26 for post test scores is greater then the table value of 3.222 for df 2 and 27 requires for significance at .05 level of confidence on explosive power in terms of vertical.

The adjusted post-test means of skill based training, plyometric training and control groups are 63.43, 56.01 and 52.05 respectively. The obtained "F" raddio of 69.94 for adducted post test scores is greater than the table value of 3.226 for df 2 and 26 required for significance at .05 level of confidence on explosive power in terms of vertical. The results of the study indicated that there was a significant difference among the adjusted post-test means

of skill based training, plyometric training and control groups power in terms of vertical. To determine the significance difference among the three paired means, the Scheff's test was applied as post-hoc test and the results are presented in table-II.

TABLE II
SCHEFF'S TEST

Skill based group	Plyometric group	Control group	Mean differences	Confidence interval value
63.43	56.01	-	7.42*	2.29
63.43	-	52.05	11.38*	2.29
-	56.01	52.05	3.96*	2.29

❖ Significant at .05 level of confidence.

The table-II shows that the mean difference values between skill based training and plyometric training skill based training and control groups, plyometric training and control group 7.42*, 11.38* respectively on explosive power in terms of vertical which were greater than the required confidence interval value 2.29 at .05 level of confidence. Hence the above comparisons were significant.

CONCLUSION

Hence, it was concluded from the results that both skill based training and plyometric training were better method to improve explosive power in terms of vertical. Among the training, skill based training improve much better than plyometric training programmed.

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