EFFECT OF SAQ TRAINING ON EXPLOSIVE POWER IN TERMS OF VERTICAL DISTANCEAND ELASTIC POWER AMONG UNIVERSITY MEN STUDENTS

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ABSTRACT

The purpose of the study was designed to examine the effect of SAQ training on explosive power in terms of vertical distance and elastic power of university men students. For the purpose of the study, thirty men students from the Basaveshwara Pre University College, Bagalkot, Karnataka State were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent SAQ training for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables namely explosive power in terms of vertical distance and elastic power were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using vertical jump and bunny hops respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate. The results of the study showed that there was a significant difference between SAQ training group and control group on explosive power in terms of vertical distance and elastic power. And also it was found that there was a significant improvement on explosive power in terms of vertical distance and elastic power due to twelve weeks of SAQ training.

KEYWORDS: SAQ training, explosive power in terms of vertical distance, elastic power, ANCOVA.

INTRODUCTION

Sports specific plyometric exercises, known as SAQ (speed, agility, and quickness) training, are designed to help athletes improve their performance. Through the use of agility ladders, cones, and other equipment, SAQ training can help athletes develop their speed, agility, and quickness skills. SAQ training is designed to increase an athlete's ability to react quickly and accurately in different situations. It also allows the athlete to develop greater control over their body and its movements. Speed, agility, and quickness training can be used to increase an athlete's ability to move quickly and accurately in all directions, while maintaining balance and control.

SAQ training exercises can be tailored to the specific sport and the individual athlete's needs. For example, a football player may be trained to quickly accelerate, decelerate, and change direction in order to make quick cuts to avoid defenders. A basketball player may be trained to quickly react to a defender's movements, while maintaining control and balance in order to move around and shoot. The benefits of SAQ training are numerous. It can improve an athlete's speed, agility, and quickness, which can help them to become more athletic and competitive in their sport. It can also improve an athlete's coordination, balance, and reaction time. It can also help them to become more physically and mentally fit. SAQ training can be

done in a variety of settings, such as in a gym or at home. It can also be done in a group setting, which can help an athlete to learn from others and benefit from the support of their peers.

METHODOLOGY

The purpose of the study was designed to examine the effect of SAQ training on explosive power in terms of vertical distance and elastic power of university men students. For the purpose of the study, thirty men students from the Department of Physical Education, Annamalai University were selected as subjects. They were divided into two equal groups. Each group consisted of the fifteen subjects. Group I underwent SAQ training for three days per week for twelve weeks. Group II acted as control who did not undergo any special training programme apart from their regular physical education programme. The following variables namely explosive power in terms of vertical distance and elastic power were selected as criterion variables. All the subjects of two groups were tested on selected dependent variables by using vertical jump and bunny hops respectively at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. The .05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate.

ANALYSIS OF THE DATA

Explosive power in terms of vertical distance

The analysis of covariance on explosive power in terms of vertical distance of the pre and post test scores of SAQ training group and control group have been analyzed and presented in Table I.

TABLE I

ANALYSIS OF COVARIANCE OF THE DATA ON EXPLOSIVE POWER IN TERMS OF VERTICAL DISTANCE OF PRE AND POST TESTS SCORES OF SAQ TRAINING AND CONTROL GROUPS

Test	SAQ Training Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	41.07	40.67	Between	1.20	1	1.20	0.06
S.D.	4.19	4.81	Within	582.27	28	20.80	
Post Test							
Mean	47.13	40.87	Between	294.53	1	294.53	8.35*
S.D.	4.61	4.73	Within	988.00	28	35.29	
Adjusted Post Test							
Mean	46.93	41.07	Between	256.16	1	256.16	110.93*
			Within	62.35	27	2.31	

* Significant at .05 level of confidence.

(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table I shows that the adjusted post-test means of SAQ training group and control group are 46.93 and 41.07 respectively on explosive power in terms of vertical distance. The obtained "F" ratio of 110.93 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on explosive power in terms of vertical distance.

The results of the study indicated that there was a significant difference between the adjusted post-test means of SAQ traininggroup and control group on explosive power in terms of vertical distance.

Elastic power

The analysis of covariance on elastic power of the pre and post test scores of SAQ training group and control group have been analyzed and presented in Table II.

TABLE II
ANALYSIS OF COVARIANCE OF THE DATA ON ELASTIC POWER OF PRE AND POST TESTS SCORES OF SAQ TRAINING AND CONTROL GROUPS

Test	SAQ Training Group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre Test							
Mean	4.19	4.12	Between	0.0320	1	0.032	1.94
S.D.	0.13	0.10	Within	0.4609	28	0.016	
Post Test							
Mean	4.43	4.14	Between	0.6395	1	0.639	18.13*
S.D.	0.12	0.11	Within	0.9876	28	0.035	
Adjusted Post Test							
Mean	4.41	4.16	Between	0.4346	1	0.435	79.38*
			Within	0.1478	27	0.005	

* Significant at .05 level of confidence.
(The table values required for significance at .05 level of confidence for 2 and 28 and 2 and 27 are 3.34 and 3.35 respectively).

The table II shows that the adjusted post-test means of SAQ training group and control group are 4.41 and 4.6 respectively on elastic power. The obtained "F" ratio of 79.36 for adjusted post-test means is more than the table value of 3.35 for df 1 and 27 required for significance at .05 level of confidence on elastic power.

The results of the study indicated that there was a significant difference between the adjusted post-test means of SAQ traininggroup and control group onelastic power.

CONCLUSIONS

1. There was a significant difference between SAQ training group and control group on explosive power in terms of vertical distance and elastic power.
2. And also it was found that there was a significant improvement on selected criterion variables such as explosive power in terms of vertical distance and elastic power due to SAQ training.

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