

EFFECTIVE STUDY OF S.A.Q TRAINING AND TEMPO TRAINING ON AGILITY AND RESTING PULSE RATE AMONG JUNIOR CRICKET PLAYERS

S. Mohanasundaram And G. Vasanthi

Ph.D. Research Scholar, Department Of Physical Education and Sports, Pondicherry University, Puducherry
Associate Professor, Department Of Physical Education and Sports, Pondicherry University, Puducherry

Abstract: The purpose of this study is to determine the effect of S.A.Q training and tempo training on agility and resting pulse rate among junior cricket players. Forty five subjects were selected from the Stansford International Higher Secondary School, Puducherry and their age ranged from 14 to 17 years. The subjects were equally divided into three groups with fifteen subjects in each group. The group I was treated with S.A.Q training group, Group II was treated with tempo training group and Group III was treated with control group. Training was given for a period of 12 weeks. The results of pre-test and post-test were statistically analyzed by using analysis of co-variance. The result when compared between the two experimental groups revealed that resting pulse rate had no significant improvement due to S.A.Q training and tempo training when compared to the control group. But agility had significant improvement due to S.A.Q training and tempo training when compared to the control group. The result revealed that it was found that S.A.Q training group had significant effect on agility.

Keyword: S.A.Q training, tempo training, agility, resting pulse rate, and junior cricket players.

INTRODUCTION:

Speed, Agility, and Quickness (S.A.Q.) training has become a popular way to train athletes. With increasing need to promote athletic ability, this type of training has proven to enhance the practical field abilities of participants in a wide variety of sports. It is practised in addition to conventional resistance training in the gym and serves to assist the strength gained there to performance in the arena of play. Agility is closely related to balance because it requires athletes to regulate shifts in the body's centre of gravity while subjecting them to postural deviation.

Agility is closely related to balance because it requires athletes to regulate shifts in the body's centre of gravity while subjecting them to postural deviation. Many athletes and coaches believe that agility is primarily determined by genetics and is therefore difficult to improve to any significant degree. Coaches often become enamoured with an athlete who possesses natural physical attributes-physical size, strength, vertical and horizontal power, ideal body composition that are associated with successful performance. However, these attributes alone will not guarantee success in sports that require agility.

Hence, all sports persons can benefit when speed, agility, and quickness training is integrated into their training program. Tempo training work is low intensity training that has many great benefits for speed/ power athletes. This type of training is used as recovery, general strength and conditioning work. The Game of Cricket requires a lot of mental strength, physical strength, concentration all the time whether it's bowling, batting or fielding. It's important to

have hunger for scoring runs and not getting out until the end of innings but that could sometimes lead one play a silly shot and they will walk back regretting the shot, one should have positive thoughts in mind all the time when they are batting,

METHODOLOGY

The Purpose of the study was to find out the effect of S.A.Q training and tempo training on agility and resting pulse rate among junior cricket players. Forty five subjects were selected from the Stansford International Higher Secondary School, Puducherry and their age ranged from 14-17 years. The subjects were junior cricket players. The subjects were equally divided into three groups namely control and two experimental groups with fifteen subjects in each group. Control group did not undergo any training programme rather than their daily routine work. The experimental group (Group I) was treated with S.A.Q training and experimental group (Group II) was treated with tempo training. Training was given for a period of 12 weeks. Training was given on alternative days in a week except Sunday. The training session was carried out for 60 min which includes warming up and cooling down. Agility was measured through T-test and Resting pulse rate were measured through count of the beat in one minute. The results of pre-test and post- test were compared by using Analysis of Covariance (ANCOVA). The subjects living condition and life style were not taken into consideration for this study.

TABLE-I
ANALYSIS OF COVARIANCE FOR CONTROL GROUP, S.A.Q TRAINING GROUP AND TEMPO TRAINING GROUP ON AGILITY AND RESTING PULSE RATE

Variables	Test	CG	EGI	EG II	SOV	Sum of squares	df	Mean squares	'F' ratio
Agility	Pre test	14.8493	14.1487	14.4120	B:	3.758	2	1.879	1.037
		1.43181	1.30053	1.30178	W:	76.105	42	1.812	
	Post test	14.8187	13.4727	13.5733	B:	16.864	2	8.432	4.139*
		1.46810	1.42395	1.38862	W:	85.557	42	2.037	
	Adjusted Post test	14.423	13.808	13.634	B:	4.998	2	2.479	35.074*
					W:	2.921	42	0.071	
Resting pulse rate	Pre test	79.9333	79.8667	79.6889	B:	4.044	2	2.022	0.087
		4.81763	5.35674	4.21675	W:	975.600	42	23.229	
	Post test	80.0000	78.4000	77.5333	B:	46.978	2	23.489	1.075
		4.75094	5.16582	4.03320	W:	917.333	42	21.841	
	Adjusted Post test				B:	29.244	2	14.622	2.911
		79.772	78.234	77.927	W:	67.278	42	1.641	

*Significant at 0.05 level.

Required table value at 0.05 level of significance for 2&42 degrees of freedom = 3.23

Table I shows the analysis of co-variance for the pre-test mean on agility is 1.037. There is no significant difference among the three groups on agility, since the calculated 'f' value is less than the required table value 3.23. But there is significant difference among the posttest means of the three groups' on agility, since the calculated 'f' value 4.139 is greater than the required value 3.23. The Adjust posttest mean 35.074 is also significant, since the calculated value is greater than the required value is 3.23. Since the result showed significant difference among the three groups, the scheffe's post hoc test was used to find out the significant difference between the paired means.

The resting pulse rate shows the analysis of co-variance for the pre-test mean is 0.087. There is no significant difference among the three groups on resting pulse rate, since the calculated 'f' value 0.087 is less than the required table value 3.23 and also there is no significant difference among the posttest means of the three groups on resting pulse rate. Since the calculated 'f' value 1.075 is less than the required value 3.23. The Adjust posttest mean 2.911 is also non-significant, since the calculated value is less than the required value is 3.23.

TABLE-II
ORDERED ADJUSTED MEANS AND DIFFERENCE BETWEEN MEANS FOR THE THREE GROUPS ON AGILITY

Si.no	variable	Adjusted mean			Mean difference	Confidence interval value
		Control group	Experimental Group I	Experimental Group II		
1.	Agility	14.423	13.808	-	0.62*	0.24
		14.423	-	13.634	0.79*	0.24
		-	13.808	13.634	0.17	0.24

*Significant at 0.05 level. Scheffe's confidence circuit at 0.05 levels is 0.24

Table II shows the scheffe's post-hoc tests for the significant differences between the paired means among the three groups. For agility the mean differences between the control and Experimental Group I was 0.62. In the

comparison between control group and Experimental Group II group difference was 0.79. The ordered adjusted difference on agility means between the Experimental Group I and Experimental Group II group were 0.17. Since the mean difference between the paired means of the three groups is higher than the required table value, therefore there is significant different among the three groups.

FIGURE-1
GRAPHICAL REPRESENTATION OF PRE-TEST, POST TEST AND ADJUSTED POST TEST MEANS ON AGILITY OF THE THREE GROUPS

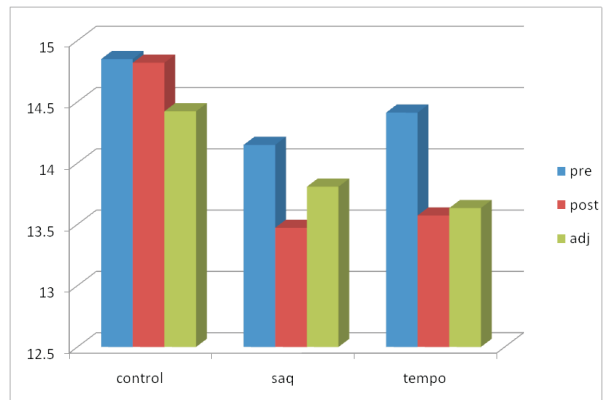
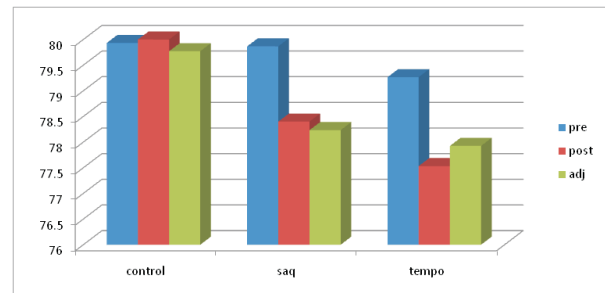


FIGURE-2
GRAPHICAL REPRESENTATION OF PRE-TEST, POST TEST AND ADJUSTED POST TEST MEANS ON RESTING PULSE RATE OF THE THREE GROUPS



CONCLUSION

The result of the study indicate that the S.A.Q training and tempo training for the experimental group improved significantly when compared to the control group and S.A.Q training group is found to be better than the tempo training group on agility and there is no significant in the resting pulse rate for both experimental groups.

REFERENCES

i.Jovanovic M and Sporis G et al., "Effect of speed, agility, quickness training method on power performance in elite soccer players". Human Performance Laboratory, Faculty of Kinesiology, University of Zagreb, Croatia mario.jovanovic@kif.hr

ii.Lemmink KA et al., “The discriminative power of the Interval Shuttle Run Test and the Maximal Multistage Shuttle Run Test for playing level of soccer”. Source Institute of Human Movement Sciences, University of Groningen, Groningen, Netherlands. K.a.p.m. lemmink@ppsw.rug.nlJ Sports Med Phys Fitness. 2004 Sep; 44(3):233-9 (Sep 2004)