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## EFFECT OF REGIMEN EXERCISE PROGRAMME ON AGILITY, LEG EXPLOSIVE POWER AND SPEED PERFORMANCE OF ADOLESCENCE BOYS



R. Muthuraj<sup>1</sup>, N. Arun Kumar<sup>2</sup> and A.Palanisamy<sup>3</sup>

### INTRODUCTION

Adolescence is a transitional stage of physical and psychological human development generally occurring during the period from puberty to legal adulthood. The period of adolescence is most closely associated with the teenage years, though its physical, psychological and cultural expressions can begin earlier and end later. For example, although puberty has been historically associated with the onset of adolescent development, it now typically begins prior to the teenage years and there has been a normative shift of it occurring in preadolescence, particularly in females see early and precocious puberty. Physical growth, as distinct from puberty and cognitive development generally seen in adolescence, can also extend into the early twenties. Thus chronological age provides only a rough marker of adolescence, and scholars have found it difficult to agree upon a precise definition of adolescence. A thorough

### ABSTRACT

*The purpose of the study was to effect of regimen exercise programme on the agility, leg explosive power and speed performance of adolescence boys. To achieve this purpose 30 adolescence boys studying in the from government higher secondary school kalveerampalayam, were randomly selected as subjects. They were divided into two equal groups of 15 each, in which Group I underwent experimental group and Group II acted as control group they did not participate any special training apart from the regular curricular activities*

**KEYWORDS** : *Regimen exercise, agility, leg explosive power speed performance and adolescence boys.*

### Short Profile

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understanding of adolescence in society depends on information from various perspectives, most importantly from the areas of psychology, biology, history, sociology, education, and anthropology. Within all of these perspectives, adolescence is viewed as a transitional period between childhood and adulthood, whose cultural purpose is the preparation of children for adult roles. It is a period of multiple transitions involving education, training, employment and

unemployment, as well as transitions from one living circumstance to another. The end of adolescence and the beginning of adulthood varies by country and by function, and furthermore even within a single nation state or culture there can be different ages at which an individual is considered to be (chronologically and legally) mature enough to be entrusted by society with certain privileges and responsibilities. Such milestone include, but are

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not limited to, driving a vehicle, having legal sexual relations, serving in the armed forces or on a jury, purchasing and drinking alcohol, voting, entering into contracts, finishing certain levels of education, and marriage. Adolescence is usually accompanied by an increased independence allowed by the parents or legal guardians and less supervision as compared to preadolescence. In popular culture, adolescent characteristics are attributed to physical changes and what is called raging hormones.

**MATERIALS AND METHODS**

The purpose of the study was to effect of regimen exercise programme on the agility, leg explosive power and speed performance of adolescence boys. To achieve this purpose 30

adolescence boys studying in the from government higher secondary school kalveerampalayam, were randomly selected as subjects. Their age ranged between 12 and 15 years. The selected criterion variables namely leg explosive power and speed performance. Comparative research design was used in this study. The collected data from the three groups of the selected variables were statistically analysed to test the significance of the mean difference among the groups on selected criterion variables, 't' ratio was used. In case of significance of mean difference observed on the criterion measure, to find out which pair of group was high among the others, as post-hoc test, the scheffe's test was applied.

**TABLE I**  
**Computation of 'T' Ratio Between Pre and Post Test Means of Experimental and Control Group on Agility**

<b>Group</b>	<b>TEST</b>	<b>MEAN</b>	<b>SD</b>	<b>SEM</b>	<b>MEAN DIFF</b>	<b>'t'</b>
Experimental group	Pre	11.85	1.053	0.271	0.59	6.90
	Post	12.04	.966	0.25		
Control group	Pre	11.820	1.2017	0.31	0.034	0.60
	Post	11.44	1.148	0.29		

\*significant level at 0.05 confident (2.145)

Table I reveals the computation of 't' ratio between pre and post-test on agility adolescence boys the men values of pre and post-test of experimental group were 11.85 and 12.042 respectively. Since the obtained 't' ratio 6.89 was greater than the required table value 2.145, it was found to be statistically significant at 0.05 level of confidence for degrees of freedom 1 and 14. The result clearly indicated the agility of experimental group had been improved. Due to the influence of Regimen of Exercise Programme. 't' ratio between pre and post-test of control group were 11.820 and 11.449 respectively. Since, the obtained 't' ratio 0.60 was less than the required table value 2.145,

it was found to be statistically not significant at 0.05 level of confidence degrees of freedom 1 and 14. The result clearly indicated the control group had not shown significantly improved.

TABLE II

Computation of 't' Ratio between Pre and Post Test Means of Experimental and Control Group on Leg Explosive Power

Group		MEAN	SD	SEM	MEAN DIFF	't'
Experimental Group	Pre	1.601	0.132	0.034	0.032	4.553
	Post	1.770	0.125	0.032		
Control Group	Pre	1.634	0.138	0.035	0.162	0.986
	Post	1.608	0.156	0.040		

\*significant at 0.05(2.145)

Table I reveals the computation of 't' ratio between pre-test and post on leg explosive power adolescence boys the men values of pre and post-test of experimental group were 1.601 and 1.770 respectively. Since the obtained 't' ratio 4.553 was greater than the required table value 2.145 it was found to be statistically significant at 0.05 level of confidence for degrees of freedom 1 and 14. The result clearly indicated

the leg explosive power of experimental group had been improved. Due to the influence of Regimen of Exercise Programme. 't' ratio between pre and post-test of control group were 1.634 and 1.608 respectively. Since, the obtained 't' ratio 0.986 was less than the required table value, it was found to be statistically not significant at 2.145 level of confidence degrees of freedom. The result clearly indicated the of control group had not shown significantly improved.

TABLE III

Computation of 't' Ratio Between Pre and Post-test Means of Experimental and Control Group on Speed

Group		MEAN	SD	SEM	MEAN DIFF	't'
Experimental Group	Pre	7.394	0.86	0.222	0.330	5.935
	Post	7.125	0.96	0.2486		
Control Group	Pre	7.366	0.87	0.2268	0.0273	1.186
	Post	7.455	1.000	0.2584		

\*significant at 0.05 (2.145)

Table I reveals the computation of 't' ratio between pre-test and post on speed adolescence boys the men values of pre and post-test of Experimental group were 7.394 and 7.125 respectively. Since the obtained 't' ratio .5.935 was greater than the required table value 2.145, it was found to be statistically significant at 0.05 level of confidence for degrees of freedom 1 and

14. The result clearly indicated the speed of experimental group had been improved. Due to the influence of Regimen of Exercise Programme. 't' ratio between pre and post-test of control group were 7.366 and 7.455 respectively. Since the obtained 't' ratio 1.186 was less than the required table value 2.145, it was found to be statistically not significant at level of confidence degrees of freedom 2.145. The result clearly indicated the of control group had not shown significantly improved.

## DISCUSSION OF FINDINGS

For this study the effect of four week regimen of exercise program on select variable of adolescence boys of 4 weeks improved on the variables. In control group they do not have any improved on the variable. There was significant improvement on agility due to 4 weeks of regimen of exercise program there was significant improvement on leg explosive power due to 4 weeks of regimen of exercise program there was significant improvement on speed performance due to 4 weeks of regimen of exercise program there was insignificant in control group

## CONCLUSIONS

From the statistical analysis, it is found that there was a significant mean difference on agility, leg explosive power and speed performance due to 4 weeks of regimen exercise program .In control group there is insignificant improvement.

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