

# Effect of Kalaripayattu Practice on Agility and Flexibility among Adolescent boys

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**S. Rajamony**, Vice-Principal, Mother Teresa College of Physical Education & Research Scholar, Karpagam University &

**S. Suthakar**, Head i/c, Department of Physical Education, Karpagam University, Coimbatore

## Abstract

The aim of the present study was to find out the effect of Kalaripayattu practice on agility and flexibility among adolescent boys. For achieving the purpose of the study total of 30 subjects were selected as samples from the age group of 15 to 17 years school boys. The selected subjects were divided in to two groups equally with 15 each as experimental group with Kalaripayattu practice and control group. The experimental group was given kalaripayattu training for a period of eight weeks in a schedule of weekly five days for the duration of two hours each. The pre and posttest were conducted on agility and flexibility before and after the eight weeks experimental training. Analysis of covariance (ANCOVA) was used as a statistical tool to determine the significant difference, if any existing between pre and post test data on Agility and Flexibility. The level of significance was fixed at 0.05 levels. The statistical findings of the study revealed that the experimental group done the kalaripayattu practice significantly improved the agility and flexibility.

**Keywords:** Kalaripayattu, Agility and Flexibility.

## Introduction

Kalaripayattu is the martial art which is very famous in Kerala state. It is practiced by different age groups as self-protection as well as fitness programme. Kalaripayattu is an Indian martial art which originated in the west coast of the then Tamilakam, during the early 13th Century AD. It is considered to be one of the oldest fighting systems in existence (Zarrilli, Phillip B., 1998). It is now practiced in Kerala, in contiguous parts of Tamil Nadu and among the Malayali community of Malaysia. It was originally practiced in northern and central parts of Kerala and the Tulu Nadu region of Karnataka. Kalaripayattu includes strikes, kicks, grappling, preset forms, weaponry and healing methods (Green, Thomas A., ed., 2001). Variants are classified according to geographical position in Kerala; these are the Northern style from Malabar region in north Kerala, the Central style from inner Kerala and the southern style from Tamilakam and Travancore.

Kalaripayattu had always been a part of the martial traditions of Kerala right since ancient times. It is believed that the Chinese systems of Kung fu and Karate owe their origins to this martial art of Kerala. Sports training are a long continuous and systematic process of physical and mental hard work to attain high level performance in competition. Kalaripayattu is an excellent form of physical exercise and useful for desired strength and flexibility.

Regular practice of kalaripayattu results in controlled, flexible and graceful movements of the body and helps develop strength, flexibility and stamina. Rajib Ghosh & Sebastian, P.J (2016) conducted a study on the effect of Kalaripayattu exercises on selected motor components and coordinative abilities of national level Football players and they found out that motor component variables namely explosive strength, speed, cardio respiratory endurance and flexibility were significantly improved. The present study was intended to found out the effect of Kalaripayattu practice on agility and flexibility among adolescent boys.

## **Methodology**

For achieving the purpose of the study total of thirty subjects were selected as samples from the school. Their age group between 15 to 17 years and the selected subjects were divided in to two groups equally with 15 each as experimental group with kalaripayattu practice and Control Group. The experimental group practiced Kalaripayattu for a period of eight weeks in a schedule of weekly five days for the duration of two hours each. The pre and posttest were conducted on selected health related physical fitness variables of agility and flexibility. The agility was assessed through 4x10 meter shuttle run and flexibility was assessed through sit and reach test. Analysis of covariance (ANCOVA) was used as a statistical tool to determine the significant difference, if any existing between pre and post test data on agility and flexibility. The level of significance was fixed at 0.05 levels.

## **Results and Discussions**

The analysis of covariance on the data obtained on agility and flexibility of pre and post tests are tabulated and presented in the tables I and II.

**Table-I**  
**Computation of Analysis of Covariance on Agility**

TEST	Group		SV	Sum of Squares	df	Mean Square	F value	Table Value
	Exp	Control						
Pre test	13.82	12.56	B	1.498	1	1.498	0.165	4.20
			W	12.658	28	0.452		
Post test	11.46	12.45	B	1.803	1	1.803	7.28*	4.20
			W	8.428	28	0.301		
Adjusted Mean	12.08	12.21	B	0.590	1	0.590	11.16*	4.21
			W	5.798	27	0.214		

\*Significant at 0.05 level of confidence

It was observed from the Table-I that there was no significant difference in the pre test ( $F=0.165 < 4.20$ ). The significant differences were observed in posttest ( $F=7.28 < 4.20$ ) for df 1 and 28 at 0.05 level of confidence and adjusted posttest ( $F=11.16 > 4.21$ ) for df 1 and 27 at 0.05 level of confidence. There was a significant difference in agility and mean score indicated that the experimental group improved the performance of agility than control group due to eight weeks Kalaripayattu training.

**Table-II**  
**Computation of Analysis of Covariance on Flexibility**

Test	Group		SV	Sum of Squares	df	Mean Square	F value	Table Value
	Exp.	Control						
Pre test	11.81	11.88	B	0.040	1	0.040	0.048	4.20
			W	22.419	28	0.836		
Post test	12.63	12.03	B	2.7	1	2.7	5.127*	4.20
			W	14.744	28	0.526		
Adjusted Mean	12.65	12.02	B	2.971	1	2.971	7.395*	4.21
			W	10.846	27	0.401		

\*Significant at 0.05 level of confidence

It was observed from the Table-I that there was no significant difference in the pre test ( $F=0.048 < 4.20$ ). The significant differences were observed in posttest ( $F=5.127 < 4.20$ ) for df 1 and 28 at 0.05 level of confidence and adjusted posttest ( $F=7.395 > 4.21$ ) for df 1 and 27 at 0.05 level of confidence. There was a significant difference in flexibility and mean score indicated that the experimental group improved higher level of performance in flexibility than control group due to eight weeks Kalaripayattu training.

## Conclusions

From the analysis and discussions of the present study, the following conclusions were drawn

- The Kalaripayattu training is useful to improve the physical fitness qualities of an agility and flexibility among adolescent boys.
- Further the result of the study indicated that the martial art training can be included the school curriculum to improve Physical fitness of the students.

## References

- Rajib Ghosh & Sebastian, P.J (2016). Effect of Kalaripayattu Exercises on Selected Motor Components and Coordinative Abilities of National Level Football Players, International Journal of adopted Physical Education and Yoga, 1(2), available at [www.ijapey.info](http://www.ijapey.info).
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