



---

## **Impact of Isolated Mixed Interval and Continued Training on Speed Components Among College Level Kabaddi Players**

**\*Dr. S. Saraboji**

Aditya College of Physical Education, Affiliated to Adikavi Nannaya University Surampalem, Andhra Pradesh, India

---

### **ABSTRACT**

Sports reflect the changes in societies and cultural activities that range from individual values such as regulations and simplicity to collectives like equality, general ones like belief in effort. That is capitalistic belief of the survival of the fittest. Sports couldn't see the discretely in human being. Sports develop unity and diversity. It can even play a helpful role in integrating image building for individuals, groups or humanities. Kabaddi game is developing the physical and mental of the human being. The word of kabaddi says withhold breath due to increasing the body aerobic and mental concentration power. The present explored impact of isolated mixed interval and continued training on speed components among college level kabaddi women players. The study were conducted among 60 women college kabaddi player aged 18 to 25 years. The speed performance was evaluated to speed variables as speedstride length variables of kabaddi before the training and after 8 weeks of training. The subjects were randomly assigned into four groups, namely interval exercise group, continuous exercise group, combined interval and continuous group and control group. Statistically significant improvements in baseline scores in speed stride length variables kabaddi were comparable between the four groups of college kabaddi players. Speed stride length improved by 1.63 in continued group, 1.65 in the interval group 1.68 combined interval and continued group 1.52 in the control group. Additional research on long-duration intervention in elite players may help to establish the role of combined interval and continued training in conventional kabaddi skills for training.

**Key words:** Interval training, continued training, speed, kabaddi, stride length

---

### **Introduction**

National and International level, sports and games have increased an important place for celebrities and become enormously popular. Sports reflect the changes in societies that range from individual values such as self-control and simplicity to collectives like equality, general ones like belief in effort. Sports couldn't see the discretely in social being. Sports develop unity and diversity. It can even play a constructive role in integrating image building for individuals, groups or cultures. In the most recent years, awareness has been focused on different methods of fitness programmes for improving performance. The professor and coach looking for the best emerging essential physical fitness qualities must consider various kinds of sports training. This has made the investigator grow a keen interest in that area to discover a form of exercise (interval exercise and continuous training) that develops both speeds and endurance parameters among Kabaddi players.

The Game of kabaddi has various aerobic, anaerobic, explosive, cognitive and muscular strength factors (**Dev 2012**). Kabaddi game learns how to breathe; simply obtain flexibility and agility and speed (10 -12 m on the court). Because of flexibility, the player's eyes and body move fast. We can kick, spin and grapple with ankle legs. Strong muscle leg uses to kick by quickness acceleration. Kabaddi games have many more movement involving forward running, backward, side, jumping, grappling, touching, pushing and dogging. This movement is doing the short time with the strategic of skills. The players are intent every second during the game period. Kabaddi is a team game of physical components.

---

### **Methodology**

The Methodology for the present investigation is on the impact of isolated mixed interval and continued training on speed components among college level women kabaddi players. The purpose of study 60 women students selected from various colleges in Periyar University Inter collegiate women players, Salem, Tamilnadu. Their age ranges between 18 to 25 years. The subjects were randomly assigned into four groups, namely experimental group I (interval training), Experimental group II (continued training), experimental group III (combined interval and continued training) and control group. In order to ensure the full cooperation from the subjects, the scholar had a meeting with them and explained the purpose of the study. It was made clear by explanation in order to ascertain that there was no abstruseness among the players regarding the effort, which they had to put in for the impactful completion of this study. Experimental group I participated for a period of 8 weeks interval training. Experimental group II participated for a period of 8 weeks continued training. Experimental group III for a period of 8 weeks combined interval and continued training and Control group no training. The subjects were verified on selected criterion variables speed variables as stride length kabaddi players before the training and after 8 weeks of training.

### Training Procedure

Experimental Group-I undertook interval training, experimental Group-II undertook continued training and experimental Group-III undertook combined training respectively. The control group was not exposed to any specific training / conditioning programme. The experimental treatments namely interval training, continued training and combined training was administrated for duration of 8 weeks and the number of session per week was confined to three alternative days and each session continued 60 minutes.

### Statistical Technique

The collected data from the three groups prior to and after the experimental treatments on selected speed components variable was statistically analyzed by using the statistical technique of analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, Scheffe's test was followed as a post hoc test to determine which of the paired means difference was significant. In all the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses.

## Results and Analysis

The influence of independent variables on each of the criterion variables is analyzed and presented below.

The training period was limited to eight weeks. The dependent variables selected for this study was speed components stride length. All the subjects were tested prior to and immediately after the experimental period on the selected dependent variables.

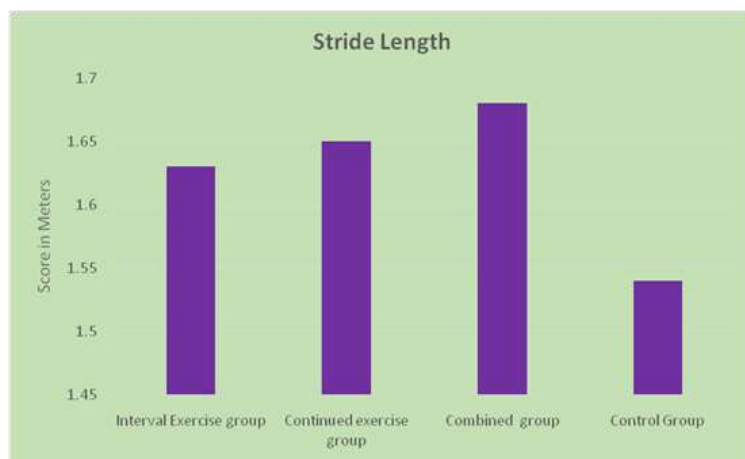
The data obtained from the experimental groups before and after the experimental period were statistically analyzed with dependent 't'-test and Analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post-test means was found to be significant, the Scheffe's Post hoc test was applied to determine the paired mean differences. The level of confidence was fixed at 0.05 level for all the cases.

Table – 1

Computation of Analysis of Covariance of pre test, post test and adjusted post test on Stride Length of Experimental groups and Control group

Test	Interval Exercise group	Continued exercise group	Combined group	Control Group	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Mean	1.53	1.53	1.53	1.52	Between groups	0.001	3	.000	0.21
					Within groups	0.060	56	0.001	
Post-Test Mean	1.63	1.65	1.69	1.54	Between groups	0.180	3	0.060	50.28*
					Within groups	0.067	56	0.01	
Adjusted Post-Test Mean	1.63	1.65	1.68	1.54	Between sets	0.170	3	0.057	58.64*
					Within Sets	0.053	55	0.001	

\* Significant at 0.05 level of confidence



---

**Figure – 1 The Pre and Post test Mean Values of interval Training group, Continued Training group, combined training and Control group on Stride Length**


---

**Conclusion**

The findings of the study showed that there was a statistically significant improvement in the speed components stride length variables kabaddi players as compared to control group.

1. The results of the study shows that the experimental group-I that had undergone interval training group, improved speed components namely stride length kabaddi players.
2. The results of the study shows that the experimental group-II that had undergone continued training group, improved speed components namely stride length kabaddi players.
3. The results of the study shows that the experimental group-III that had undergone combined training group, improved speed components namely stride length kabaddi players.

**RECOMMENDATIONS**

It is recommended that coaches and physical educators in the game of kabaddi should give due to include interval training group, continued training group and combined training group in their training schedules.

In the physical exercise, while designing the training programme the impact of varied training modalities is explained on positively on physical fitness parameters and skill performance variables of kabaddi players, the physical education teachers and coaches can prefer this type of training so as to achieve aim in time.

**References**


---

1. Karuppiyah (2018) “the isolated and combined influence of weight training and ladder training on selected physical, physiological performance are variable among men Kabaddi players” Arul Anandar college, karumathur, Madurai, Tamil Nadu JAPEY International Journal of Adapted Physical Education & Yoga ISSN 2455-8958 28 Nov 2017 accepted 10 Feb 2018.
2. Dr Anil and A. Deshmukh (2017) “Comparative study of Physical fitness between Kabaddi and Kho-Kho female players” Indirabai Meghe Mahila Maha vidyalaya, Amarvathi, Maharashtra, India www Sports journal.in online ISSN2456-5067; Impact Factor RJIF5.24 Volume 2 Issue 1 January 2017 page no 41-43
3. Bailey SP and Messier SP (2007) stated that “Variations in stride length and running economy in male novice runners subsequent to a seven-week training program”
4. S.Balasingh and Dr.D.JimReeves Silent Night (2018) “Impact of interval and circuit training on VO2 max of Kabaddi players”ISSN24564419 yoga 2018 3(2) [www.the.yogicjournal.com](http://www.the.yogicjournal.com) 25june 2018 PageNo186-187.
5. Ferguson C, Wilson J, Birch KM, Kemi OJ (2013) “Application of the Speed-Duration Relationship to Normalize the Intensity of High-Intensity Interval Training stated that Application of the Speed-Duration Relationship to Normalize the Intensity of High-Intensity Interval Training”. The University of Queensland, Australia Received: March 22, 2013; Accepted: August 27, 2013; Published: November 14, 2013.
6. [Ferley DD](#), [Osborn RW](#), [Yukovich MD](#) (2013) presented that “The impacts of uphill vs level grade high intensity interval training on VO2 max, Vmax, V(LT), and Tmax – trained distance runners”. [J Strength Cond Res](#). 2013 Jun;27(6):1549-59. doi: 10.1519/JSC.0b013e3182736923.
7. González-Mohíno F1, Gonzalez-Ravé JM, Juárez D, Fernández FA, Barragán Castellanos R, Newton RU. *J Strength Cond* (2016) explained that “Impacts of Continuous and Interval Training on Running Economy, Maximal Aerobic Speed and Gait Kinematics in Recreational Runners”
8. [Koral J Oranchuk DJ](#), [Herrera R1](#), [Millet GY](#). (2018) Explained that Six sessions of sprint interval training improves running Performance.
9. [Midgley AW](#), [McNaughton LR](#), [Jones AM](#) (2007) Organized that “Training to enhance the Physiological determinants of long distance running performance can valid recommendations be given to runners and coaches based on current scientific knowledge”[Sports Med](#). 2007;37(10):857-80.
10. Sanjeev Kumar KS and Dr. G. Sudhakara (2018) “Selected Physical Fitness Components and Kabaddi performance.”[www.academicsjournal.com](http://www.academicsjournal.com) Volume3.issued 2 march 2018 Pno 908-910
11. [R. Silva](#), [M. Damasceno](#), [R. Cruz](#), [M.D. Silva-Cavalcante](#), [A.E. Lima-Silva](#), [D.J. Bishop](#), (2017) researched that “Impacts of a four week high intensity interval training on pacing during 5 km running trail”

12. Dr. Hanumanthayya Pujari (2018) "A comparative study on strength endurance & agility between Kabaddi and Kho –Kho players" [www.journalofsports.com](http://www.journalofsports.com) June 30-2018 page No 1217-1219
13. Hunter II et al (2017) researched that "Self-optimization of Stride Length Among Experienced and Inexperienced Runners". International Journal of Exercise Science, 01 May 2017,10(3): PMC5421982 Int J Exerc Sci. 2017; 10(3): 446–453.
14. N. Jeyaraj and Dr. P. Gopinathan (2014) "Relationship of selected physical fitness and psychological variables to Kabaddi playing ability" ISSN 2230-7850. Indian streams Research Journal volume -4 issue -4 page no 1
15. MCKay BR, Pagterson DH, Kowalchuk JM (2009), examined the "Impact of short term high –intensity interval training vs continuous training on O2 uptake kinetics, muscle deoxygenating, and exercise performance," JAppl. Jul; 107 (1):128-38.
16. GharbiAdnene, Karim Chamari, AmjadKallel, saidAhmaidi, ZouhairTabka and Zbidi(2008) assessed "Lactate kinetics after intermittent and continuous exercise training." Journal of sports Science and medicine, 7, 279-285
17. Suresh Kumar, Ramesh, Sankar, Efficacy of resistance and Yoga Training on Selected Fitness Variables Among College Level Hockey Players. International Journal of All Research Education and Scientific Methods (IJARESM), ISSN: 2455-6211 Volume 10, Issue 8, August-2022