WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Influence of Varied Training Capsules on Selected Physical Variables among College Level Women Kabaddi Players

Dr. G. Kalpana

Director of Physical Education, Department of Physical Education, St. Joseph College for Women, Tirupur, Bharathiar University

ABSTRACT

Background: Kabaddi is a dynamic sport requiring a unique blend of physical strength, endurance, agility, and strategic skills. The effectiveness of training regimens in optimizing performance can significantly impact athletes' physical and physiological parameters.

Objective: This study aims to evaluate the influence of different training capsules on selected physical variables among college-level women Kabaddi players.

Methods: A total of 60 college-level women Kabaddi players were randomly assigned to three distinct training groups: (1) tabatta training, (2) resistance training, and (3) a combined training regimen incorporating both endurance and speed components. The training programs were administered over a period of 8 weeks. Pre- and post-intervention assessments were conducted to measure physical variables such as speed.

Results: The results indicated significant improvements in physical fitness variables across all training groups. The combined training regimen showed the most pronounced effects, with notable enhancements in speed.

Conclusion: Varied training capsules significantly influence the physical fitness variables of college-level women Kabaddi players. The combined training regimen was found to be most effective in improving overall athletic performance. These findings suggest that incorporating a balanced approach to training could optimize performance and physical fitness outcomes of speed for Kabaddi players.

Keywords: Kabaddi, physical variables, speed training regimens, women kabaddi players.

INTRODUCTION

Sport is one of the striking features of twentieth-century life, as evidenced by the variety and popularity of sporting events in the most diverse parts of the world. This new phenomenon in society has attracted the interest of researchers in many fields, and ever more urgently calls upon historians to contribute to a deeper understanding of sport through their knowledge of the past.

Sports have become an important part of a nation's culture as well as of other cultures throughout the world. Sports pervade society to such an extent that it has been described by many as a microcosm of society. As such, sports reflect characteristics of society **(Coakley 1988).** In describing sports and game is a physical process, sport is playful, competition, physical skill and strategy (**Wilkeson and Doilies 1979).**

Kabaddi is a traditional Indian sport that combines elements of tag and wrestling, and it's played in various forms across South Asia. Originating in ancient India, kabaddi has evolved into a highly popular sport with a structured format, particularly in countries like India, Bangladesh, and Pakistan. Kabaddi is more than just a sport; it's a cultural phenomenon in many South Asian communities. It promotes teamwork, physical fitness, and regional pride. The sport is deeply rooted in rural traditions and has grown to be celebrated on both national and international stages.

SPORTS TRAINING

Sports training or coaching is the process of preparation of sportsmen based on scientific and pedagogical principles aims at improving and maintenance of higher performance capacity. Coaching may be defined as a technical skill that involves the coordination of factors like time, sequence, action, movement, speed, education and improvement of mental capabilities, improvement of tactical efficiency, and acquisition of motor skills improvement of physical fitness. The main aim of sports training is to prepare a sportsman for the highest possible performance in the main competition in a particular sports/event. Besides this following should be considered as the aims of sports training (**Matveyev 1982).**

TABATA TRAINING METHOD

Tabata is a type of HIIT-one subsection under the broad umbrella of high-intensity interval training. Specifically, it's a four-minute workout consisting of 8 rounds of 20 seconds of work at maximum effort, followed by 10 seconds of rest.

PHYSIOLOGICAL EFFECT OF TABATA TRAINING

Tabata training is a high-intensity interval training (HIIT) method that consists of short, intense bursts of exercise followed by brief periods of rest or lower-intensity activity. A typical Tabata workout involves 20 seconds of intense exercise followed by 10 seconds of rest, repeated for a total of four minutes. While individual responses to exercise can vary, Tabata training has been associated with several physiological effects.

METHODOLOGY

The present investigation delves into the influence of varied training capsules on selected physical variables among college level women kabaddi players. The study focused on 60 female kabaddi players drawn from various schools in the Tirupur district of Tamil Nadu, aged between 18 to 25 years. These participants were randomly assigned to three groups: Experimental Group I (tabatta training), Experimental Group II (resistance training), Experimental Group III (combined training), and a Control Group. To ensure the full cooperation of the subjects, a meeting was conducted wherein the purpose and objectives of the research were comprehensively explained. This communication aimed to eliminate any ambiguity and uncertainties among the players regarding the effort required for the successful completion of the study. The intervention period spanned eight weeks for both Experimental Group I (tabatta training) and Experimental Group II (resistance training) Experimental Group III (combined training),. The Control Group did not undergo any specific training during this period. Prior to the commencement of training and after the eight-week intervention period, the subjects underwent testing for selected criterion variables related to muscular strength and endurance. This pre- and post-training assessment allowed for a comprehensive evaluation of the effects of various training capsules on the specified components of physical fitness among college -level kabaddi players.

TRAINING PROCEDURE

Experimental Group I participated in tabatta training, Experimental Group II underwent resistance training, Experimental Group III (combined training), and the control group did not undergo any specific training program. Both experimental treatments, namely tabatta training and resistance training, combined training were administered over a period of eight weeks. The training sessions occurred three times a week on alternate days, with each session lasting for 60 minutes.

STATISTICAL TECHNIQUE

The data collected from both groups before and after the experimental treatments, focusing on selected variables such as speed and agility, underwent statistical analysis utilizing the technique of Analysis of Covariance (ANCOVA). In cases where the 'F' ratio for adjusted post-test means showed significance, Scheffe's post hoc test was employed to ascertain the significance of differences among paired means. A confidence level of 0.05 was established for all analyses to test the hypotheses.

RESULTS AND ANALYSIS

The examination of the impact of independent variables on each criterion variable is detailed below. The study's duration was confined to eight weeks, focusing on health-related variables of speed as the chosen dependent variables. Prior to and immediately after the experimental period, all subjects underwent testing on these selected dependent variables. The data collected from the experimental groups before and after the intervention were subjected to statistical organization utilizing the dependent 't'-test and Analysis of Covariance (ANCOVA). In instances where the 'F' ratio for adjusted post-test means demonstrated notable performance distinctions, the Scheffe's Post hoc test was conducted to identify significant differences among paired means. A confidence level of 0.05 was established for all analyses.

TABLE – 1

ANALYSIS OF COVARIANCE AMONG TABATA TRAINING GROUP, PLYOMETRIC TRAINING GROUP, COMBINED TRAINING GROUP AND CONTROL GROUP ON SPEED

	Tabata Training Group	**Plyometric Training Group**	**Combined Training Group**	**Control Group**	**Source of Variance**	**Sum of square**	**Degrees of freedom**	**Mean square**	**F - value**
Pre test mean	8.82	8.79	8.75	8.79	Between	0.029	3	0.010	0.51
					Within	1.045	56	0.019	

Post test mean	8.42	8.50	8.49	8.78	Between	1.135	3	0.378	17.23*
					Within	1.229	56	0.022	
Adjusted post mean	8.39	8.50	8.52	8.78	Between	1.211	3	0.404	110.49
					Within	0.201	55	0.004	

*Significant at 0.05 level of confidence

Required table value at 0.05 level of significant with degrees of freedom 3 and 56 is 2.77 and degrees of freedom 3 and 55 is 2.77.

Table -17 shows the obtained 'F' values on pre test, post test and adjusted post test means on speed of tabata training group, plyometric training group, combined training group and control group.

The pre test means on speed were 8.82, 8.79, 8.75 and 8.79 respectively. The 'F' value observed for the pre test on speed was 0.51. It fails to reach the table value of 2.77 for degrees of freedom 3 and 56 at 0.05 level of confidence.

Based on the results it was confirmed that the mean differences among the groups of tabata training group, plyometric training group, combined training group and control group on speed before the start of the respective treatments were found to be insignificant.

The post test means on speed of tabata training group, plyometric training group, combined training group and control group were 8.42, 8.50, 8.49 and 8.78respectively. The 'F' value observed for the post test on speed was 17.23. It was greater than the table value of 2.77 for degrees of freedom 3 and 56 at 0.05 level of confidence. Thus, the results obtained proved that the training on speed produced significant improvement among the experimental groups.

The adjusted post test means on speed test of tabata training group, plyometric training group, combined training group and control group were 8.39, 8.50, 8.52 and 8.78respectively. The 'F' value observed for the adjusted post test means on speed was 110.49. It was greater than the table value of 2.77 for degrees of freedom 3 and 55 at 0.05 level of confidence.

The observed F- value on adjusted post test means among the groups on speed was highly significant as the value was higher than required table value of 2.77. Thus the results obtained proved that the training on speed test produced significant improvements among the experimental groups.

CONCLUSION

The findings of the study showed that there was a statistically significant improvement in the physical fitness variable of speed and agility as compared to control group.

1. The results of the study shows that the experimental group-I that had undergone tabatta training group, improved physical fitness variables in speed of kabaddi women players.
2. The results of the study shows that the experimental group-I that had undergone tabatta training group better than resistance training group improved by physical fitness variables in speed of kabaddi players.

RECOMMENDATIONS

It is recommended that coaches and physical educators in the game of kabaddi should give due to include tabatta training in their training schedules.

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

REFERENCE

Alagudurai & Sivagnanam (2019) Effect of resistance training plyometric training and combined training on speed among kabaddi players. *International Journal of Yogic, Human Movement and Sports Sciences 2019; 4(1): 82-83.*

Alagudurai, Sivagnanam (2019) Effect of resistance training on explosive power and shoulder strength among kabaddi players. *Journal of Information and Computational Science Volume 9, Issue 11 - 2019 ISSN: 1548-7741.*

Arumugam, Kumar (2019) Effect of skill training associated with plyometric training on selected performance variables and leg explosive power among kabaddi players. *The International journal of analytical and experimental modal analysis Volume XI, Issue XI, November/2019 ISSN NO: 0886-9367.*

Arumugam (2019) Influence of skill training in floor mat on selected performance variables among kabaddi players. *Pramana Research Journal, Volume 9, Issue 4, 2019, issn no: 2249-2976.*

Ajay Kumar Mandal (2021) Effect of weight training on general motor ability of college level kabaddi players. *International Journal of Advances in Engineering and Management (IJAEM) Volume 3, Issue 1 Jan-Feb 2021, pp: 331-333 www.ijaem.net ISSN: 2395-5252*.

Aranga Panbilnathan (2021) Effect of plyometric training and plyometric combined with weight training on selected skill performance variables of kabaddi players. *Indian journal of physical education, sports and applied science, vol.11, no. 4, October, 2021, ISSN-2229-550x (p), 2455-0175.*

Astorino, Todd A (2012) Effect of High-Intensity Interval Training on Cardiovascular Function, $\dot{V}o_2max$, and Muscular Force. *Journal of Strength and Conditioning Research, January 2012 - Volume 26 - Issue 1 - p 138-145.*

Basavaraj Ambiger, Kulothungan (2022) Analysis of offensive skills factors predominant towards the success of teams in pro kabaddi season seven. *International Journal of Physiology, Nutrition and Physical Education 2022; 7(1): 130-134, ISSN: 2456-0057 IJPNPE 2022; 7(1): 130-134.*

Basanagouda Laxmeshwar, Amarnath (2019) Development of kabaddi defensive skills test for high school boys. *International Journal of Yogic, Human Movement and Sports Sciences 2019; 4(1): 321-323 ISSN: 2456-4419.*

Basanagouda Laxmeshwar, Amarnath (2019) Development of kabaddi offensive skills test for high school boys. *International Journal of Physiology, Nutrition and Physical Education 2019; 4(1): 608-610 ISSN: 2456-0057 IJPNPE 2019; 4(1): 608-610 © 2019.*

Bhadresh Tandel (2018) Effect of strength training on selected physical variables of kabaddi players.*International Journal of Physiology, Nutrition and Physical Education 2018, Vol. 3.*

Balasundar, Sankar (2019) Effect of tabata training on selected physical and physiological variables of school level Kabaddi players. *International Journal of Physiology, Nutrition and Physical Education Vol. 4, Issue 1 High Technology Letters Volume 26, Issue 7, 2020 ISSN NO: 1006-6748.*

Elenafernández-Lezaun (2017) Effects of resistance training frequency on cardio respiratory fitness in older men and women during intervention and follow-up. *Elsevier journal, Volume 95, September 2017, Pages 44-53.*

Jasvir Ram (2019) Comparative study of linear kinematical variables during running hand touch skill among different level kabaddi players. *International Journal of Physiology, Nutrition and Physical Education 2019; 4(1): 2207-2208, ISSN: 2456-0057.*

Jayakumar (2019) Effect of resistance training on selected physical fitness variables among inter collegiate men kabaddi players. *International Journal of Physiology, Nutrition and Physical Education 2019; 4(2): 607-609.*

Jayaprakash, albert chandrasekar (2020) The effect of specific training on selected physical variable among kabaddi players. *Indian Journal of Public Health Research & Development. Feb 2020, vol. 11 issue 2, p224-226. 3p.*

Jeyaveerapandian (2019) Influence of specific training with and without yogic practices on speed among women kabaddi players. *Journal of Information and Computational Science, volume 9, issue 7 - 2019 ISSN: 1548-7741.*

Jarosław Domaradzki, Ireneusz Cichy, Andrzej Rokita (2020) Effects of tabata training during physical education classes on body composition, aerobic capacity, and anaerobic performance of under-, normal- and overweight adolescents. *Int J Environ Res Public Health, PMCID: PMC7038039,*