TPM Vol. 32, No. S4, 2025
ISSN: 1972-6325
https://www.tpmap.org/

Open Access

EFFECT OF SUPER CIRCUIT RESISTANCE TRAINING AND YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLE OF TRIBAL COLLEGE WOMEN KABADDI PLAYERS

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Abstract
In order to ascertain the effects of yoga and hypercircuit resistance training on certain physiological factors in female tribal college kabaddi players, this study was conducted. Through random selection, as study participants, sixty (N=60) indigenous college women kabaddi professionals from Bhadradri Kothagudem, Telangana state, India, were recruited. The subjects were between the ages of 19 and 25. They were split up into four groups of fifteen people each at random. Group I received Super Circuit Strength Training, and Groups II and III received Yogic Exercises and Combination Super Circuit Diagram Resistance Conditioning, respectfully. Group IV served as the control group. The twelve weeks of training could only be completed on three days a week. Vo2 Max was the only dependent variable chosen for this investigation. Every subject underwent testing on the chosen dependent variables both before and right after the experimental period. Data analysis was done using Schefee's subsequent test and ANCOVA. The level of confidence was set at 0.05. The consequences of the study show that among tribal college women kabaddi stakeholders, super circuit strength training and yoga exercises considerably enhanced the selected physiologic parameter.

Keyword: Yogic exercises, super circuit resistance training, and Vo2 max

INTRODUCTION

Physical characteristics, body composition, muscular and neuromuscular function, and mental toughness all play a significant role in a player's ability to compete well against an opponent. Quickness many people believes that "agility" is a crucial element in many sports. A boxer evading a blow, a ballet dancer performing a pirouette, or a wrestler performing a takedown are all examples of agility. Agility, on the other hand, is usually seen by people who are concerned in improving and developing athletic performance as a locomotor talent that enables athletes to alter their course. Among the field and court sports where this kind of action is commonly observed are football, basketball, and handball [1]. Accordingly, agility is typically defined as the ability to quickly and efficiently combine braking, direction changes, and acceleration while maintaining control of the motor in either a vertical or horizontal direction. It has the ability to completely and precisely alter the position on the ground or in the surrounding region. In addition to visual processing, an athlete who exhibits exceptional agility may also have additional traits including dynamic stability, spatial awareness, and rhythm.
Therefore, although if agility is unquestionably defined as the ability to quickly halt and start moving again, this motor skill may be overly complex [2]. For the majority of tasks that people must perform on a daily basis, physical health is a fundamental requirement. Physical fitness, which is best attained by regular training in physical sporting activities,

is the most valuable asset one may possess. The two are closely related: athletic performance and physical health. To boost the reputation of athletes' physical condition, acceptable stress must be given if video games and sports are to increase in popularity in the US.

KABADDI:

In India, this is among the most well-liked sports, which is gaining popularity in different parts of Asia and in other continent too. Recently conducted World Cup in Mumbai, India, during October2004 [3], is the testimony to the growing popularity of the game in which 12 countries participated from across the world.

SUPER CIRCUIT RESISTANCE TRAINING:

Vinolia and Annadurai (2021) Resistance training for super circuits Weight training is a program that involves jogging or other aerobic activities in between sets. This type of training improves both strength and aerobic capacity.

YOGA:

The ultimate technique that creates a wonderful transformation in lifestyle is yoga. Yoga can transform the unlawful nature of the socially isolated aspects, feelings of discontent, egotism, rage, avarice, attachment, etc.

According to Gallantino et al. (2004), the precise meaning of yoga is "yoke," which means to connect or bind.

Vo2 Max:

The highest rate of oxygen consumption possible during physical exercise is known as Maximum oxygen consumption, maximum absorption of oxygen, or maximal lung capacity is other names for VO2 max. "V" for volume and "O2" for oxygen are the three symbols that comprise the name. "Max" is an acronym for ultimate.

RELATED WORKS

The medical and technological developments that have made our lives easier have directly led to the emergence of numerous serious health and fitness problems. Being physically fit and healthy is the most crucial factor. Working out offers so many advantages that it's practically a magic potion; the benefits of fat loss are in addition to those of the respiratory and cardiovascular systems. The increase in energy improves mental clarity, strength, and endurance. This is the most important type of exercise you can do. Yoga not only helps us stay focused but also explains how to proceed in life. It's important to remember that kabaddi originated in India and is a highly successful sport.

The human body is constructed in a way that allows it to feel stress and respond to it. Our bodies generate physical and mental reactions whenever we encounter conditions, changes, or difficulties (stressors) [4, 5]. These reactions enable our bodies to adjust or regulate in response to various situations or circumstances. Stress can be beneficial, constructive, and essential for maintaining our motivation and alertness as well as preparing us to avoid danger. The autonomic nerve system regulates breathing, heart rate, vision changes, and other bodily functions. Its innate fight-or-flight response is useful in stressful and dangerous circumstances.

An effective technique for describing and analyzing body size, shape, form, and proportions is anthropometry. Due to its widespread application in measuring and analyzing human growth, it has emerged as a significant field of study in anthropology, human biology, sports sciences, nutrition, medicine, psychology, and many other fields. A significant contribution to sports medicine management has come from anthropometry [6]. Anthropometry is used by physiotherapists in sports medicine clinics to treat and rehabilitate injured patients on a daily basis. While measurements of body proportions indicate the relationship between height and weight as well as between the length, width, and circumference of different body segments, measurements of body size contain descriptive data like height, weight, and surface area.

METHODOLOGY

Characteristics of performance structure Components

Physical Component

The main focus of the physical component is on the methodical development of motor skills and how they are demonstrated by athletic ability in a particular activity. The following are some of the most crucial domains of motor skills:

- Force capabilities
- Capabilities for endurance
- Ability to move quickly
- Capabilities for coordination
- Adaptability

The expression of individual skills within a particular sport discipline cannot be adequately described by a basic separation of motor abilities. The chosen sport discipline largely determines the physical demands placed on the athlete throughout physical training. Certain sports necessitate performing motor tasks at either a high (400-meter run) or low (marathon run) intensity throughout. In other sports, such as basketball or soccer, the athlete must perform a variety of motor activities at varying intensities, ranging from standing still to sprinting at top speed, frequently with direction changes. Individual sports disciplines have requirements that are related to the athlete's physical capabilities and fall into the following categories:

- The capacity to generate a lot of power in a single motion when competing, such jumping in hoops or kicking in football (force).
- The capacity for sustained exercise (endurance).
- The capacity to run quickly.
- The capacity to work out at a high intensity, which is the foundation for multidirectional movement change, maximal velocity, and acceleration (agility)

Using five principles at every step of sports preparation is the foundation of well-designed training regimens. There are three key principles: specificity, magnitude of adaption stimulus and progression.

Technical component

The goal of technical training is to develop, maintain, and transmit motor abilities. Generally speaking, there are two categories of motor skills when considering sports performance structure:

Basic abilities are derived from a person's innate genetic makeup. Gait, running, jumping, climbing, and simple over-arm throwing are all included.

The contents of a particular sports discipline serve as the foundation for sports talents. Similar to volleyball, skills include things like setting, receiving, blocking, and serving. The goal of honing these abilities is to achieve a high degree of automation. Regardless of the athlete's current level of performance, these abilities support them throughout their whole athletic career. Regardless of performance level, the player maintains these qualities throughout his athletic career. The long-term idea of athletic performance structure should guide the acquisition of these skills. This idea states that training for a particular sport must include a wide range of motor abilities that are crucial for achieving other goals of the sports performance structure but do not constitute its contents. For instance, they incorporate athletic or gymnastic abilities that are critical to an athlete's recuperation, compensation, and overall growth.

Tactical component

The tactical element of athletic performance structure is concerned with various methods of conducting competition in order to win. Tactics and strategy are important terms in this component.

A strategy is a prearranged plan that was developed in advance and is founded on experience with the deliberate administration of sporting events that has demonstrated the ability to produce the desired outcome in a particular competition.

In a particular race scenario, tactics refer to the actual implementation of a strategy. The essential foundation for practical implementation is the knowledge of potential solutions for specific race situations. Within the chosen long-term concept of sports performance structure, the progress of obtaining potential solutions for racing scenarios must be by the length of time of sports production structure.

ASSORTMENT OF THE SUBJECTS:

Sixty people were chosen at randomly from Bhadradri Kothagudem in Telangana State, India, in order to fulfill the study's objectives [7]. The participants were between the ages of 19 and 25. They were randomly split up into four teams of fifteen people each (n=15). Super circuit resistance training was given to Group I, yoga was given to Group II, superior circuit power training and yoga were given to Group III, and the unconditioned control group was given to Group IV. Every participant provided their agreement for involvement in this study after being fully informed about the experimental approach.

SELECTION OF THE VARIABLES:

SOVEREIGN VARIABLES:

1. Training with super circuit resistance
2. Yogic Methods
3. Yoga practices and super circuit strength training together

RELIANT ON VARIABLE:

1.VO2 Max

UNTRIED DESIGN: ***Ramos et at.,(2021) [8]*** The true randomized group design of the training consisted of a pre-test and a post-test. Four equal groups were randomly selected from among the 60 participants. These were the organizations' designations: Group I focused on experimentation, Group II on yogic behaviors, Group III on a combination of yoga movements and super circuit resistance training, and Group IV on supervision. Every patient underwent a pre-test on a few physiological variables, including Vo2max. For twelve weeks, the experimental group practiced their own styles of yoga and super circuit resistance training. After twelve weeks of the corresponding treatments, the aforementioned dependent variable was subjected to a post-test.

STATISTICAL TRCHNIQUE: The information gathered from the participants was handled. Covariance statistical analysis was used to calculate the therapy groups' corrected mean differences [9]. The Scheffe's post hoc test was used to calculate the paired average meanings.

RESULT ON VO2 MAX:

Table 1: The summary of Mean and dependent 'T' Test for the Pre and Post Tests on VO2 max of Experimental group and control group

Mean	**Opposition exercise for super circuits**	**Group for Yogic Practices**	**Yogic techniques and super circuit strengthening combined**	**Group under control**
Pre –Test	**40.27**	**40.87**	**40.40**	**40.67**
Post - Test	**44.40**	**44.80**	**47.80**	**40.87**
't' Test	**4.16**	**4.06**	**9.34**	**0.19**

(2.15 is the table value needed for the "t"-test with df14 to be significant at the 0.05 level).

Table 1 indicates that the VO2 max pre-test and post-test averages for both groups engaged in Super Circuit Power Training, Yogic Practices, Yogic Methods and Combine Super Circuit Strengthen Training, and those in the control group are 40.27, 40.87, 40.40, and 40.67, respectively.

Post Test: 44.40, 44.80, 47.80 and 40.87: Control group: 4.16, 4.06.9.34 and 0.19 respectively.

For an important distinction with df 14 at the 0.05 level [10], a table value of 2.15 is needed. A number of experimental groups were employed, such as the Yogic Exercises group, the Super Circuit Resistance sports group, and the Incorporating Super Circuit Exercises and Spiritual Practices grouping.

Figure 1: The Pre-Test and Post Mean value Super circuit resistance training group Yogic practices group, Combined Super circuit resistance training Yogic practices group and Control group

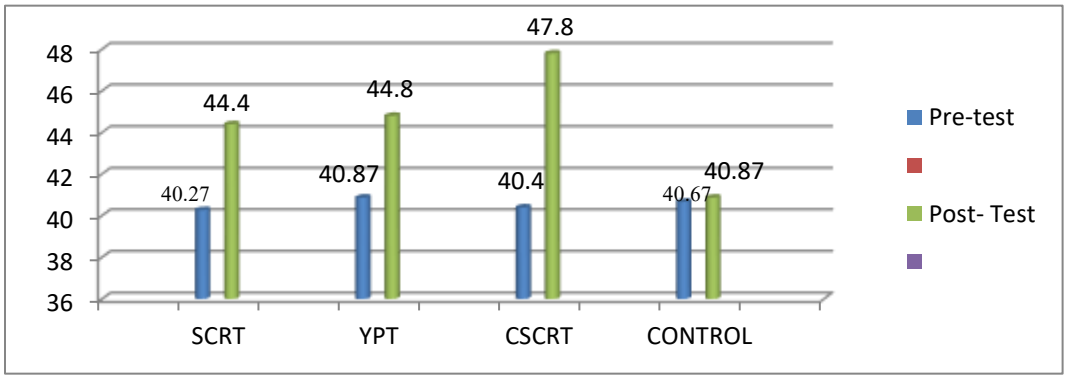

Table II. The covariance coefficient Analysis between Research and Controls Groups on VO2max

Check	Resistance exercise for super circuits	Yogic Activities	Yoga and Super Circuit conditioning combined	Group under control	The cause of the variation	The figure of squares	df	Mean Plazas	F quotient
	40.27	40.87	40.40	40.67	Between	3.25	3	1.08	0.38

Pre-Test Mean					Within	159.60	56	2.85	
Post-Test Mean	44.40	44.80	47.80	40.87	Between	362.80	3	120.93	50.49
					Within	134.13	56	2.40	
Adjusted Post Test Mean	44.52	44.67	47.86	40.82	Between	372.07	3	124.02	63.62
					Within	107.23	55	1.95	

(Vo2max score in Litters per Minute)

Table value for df(3,56) at 0.05level=2.76 Table value for df (3,55) at 0.05 level = 2.78

The Vo2max mean for Super Circuit Immunity Training, Yogic Practices, and Combined Super Circuit Resistance Training and Yogic Practices was 40.27, 40.87, 4.404.0.67, and 44.40, 44.80, 47.80, 40.87, and 44.52, 44.67, 47.86, and 40.82 for the Governance Group, according to Table II.

Table II makes it evident that the Pre Test value for degrees of freedom 3 and 56 was 02.76 (F=0.38, P<0.05) [11]. The VO2 max post-test value (F = 50.49, P >0.05) must be significant at the 0.05 level of confidence. A significance level of 0.05 for VO2max requires a value of 2.78 for degrees of independence 3 and 55 for the corrected posttest (F=63.62, P>0.05).

The investigation's findings show that the VO2max corrected post-test averages for the control group, super circuit opposition fitness group [12], yogic practices organization, and combination of super circuitry resistance exercise and yogi operations group differ significantly.

Figure 2. The value of the attuned post-test mean VO2max monitoring group, super circuit resistance exercising group, yoga practice group, and mixed super circuit endurance training and yoga practice group.

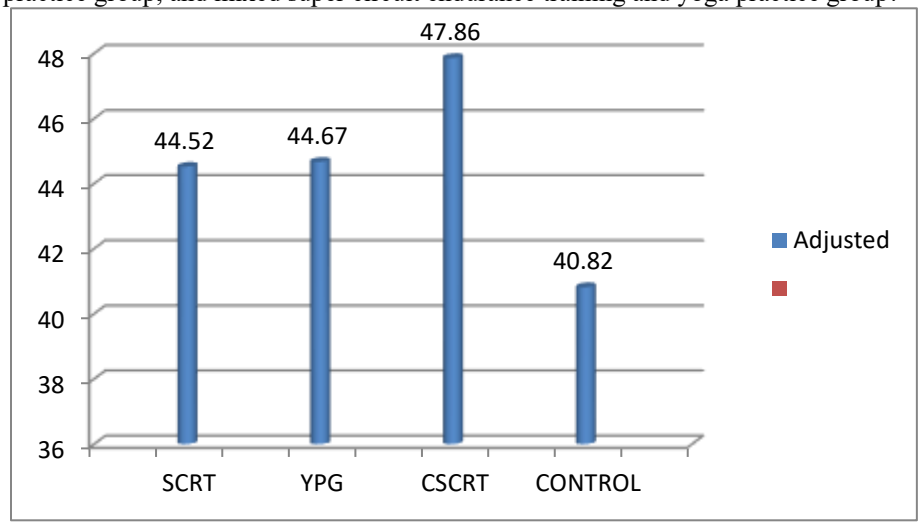

TABLE III. The variations between the corrected post-test paired means on VO2max are measured using Scheffe's test

Attuned Post- test Incomes					
Excellent circuit resistance preparation	**Yogic Observes**	**Yoga exercises and the preparation of mutual super circuit impedance**	**Control clutch**	**Mean Differences**	**Confidence Interval**
44.52	44.67			0.15	1.47
44.52		47.86		3.35	1.47
44.52			**40.82**	**3.70**	1.47
	44.67	**47.86**		**3.19**	1.47
	44.67		**40.82**	**3.85**	1.47
		47.86	**40.82**	**7.04**	1.47

According to Table III [13], the corrected post-test average distinctions in VO2max for each group are Trust Interval=1.47>0.05 close of belief. Additionally, table III demonstrates that the Super Circuits Strength Training Groups and Yogic Exercises the group's post-test mean VO2max fluctuations were corrected of 0.05 [14, 15], with a confidence internal value of 1.47<0.05.

DISCUSSION ON FINDING

The reach and sit test was used to determine VO2max. Considering that the calculated F value exceeded the required amount, the result displayed in the table indicates a substantial adjusted mean. Notable variations between the groupings and the comparative group who engaged in yoga and resistance training with super circuits were demonstrated by the post hoc assessment of the adjusted mean. Additionally, it was demonstrated that the collections that betrothed in yoga and super circuit resistance exercise differed significantly from the control group.

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