Determining the Effect of Specific Yogic Exercise Kabaddi Player

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Abstract

Sit-ups were employed to measure physical stamina, and a 10-point scale was utilised to rate offensive and defensive prowess. Yoga high- and low-intensity resistance exercise with normal movement were significantly better than low-volume resistance exercise with slow movement ($P < 0.05$), but total muscular strength endurance and skill performance were significantly greater in low-volume resistance exercise with slow movement than in the other trials. The overall surplus explosive power after exercise, however, varied significantly across the three different experiments. The paired sample t-test was used to analyse the effects of asana on both speed and flexibility. The p-value used for significance was <0.05. In a statistical comparison between the experimental and control groups, the results showed that the experimental group significantly outperformed the latter in terms of both speed and adaptability. This research found that compared to low-volume circuit resistance training with slow movement of high or low volume, yoga practise combined with high-volume resistance exercise with normal movement resulted in significantly higher energy expenditure.

Keywords: endurance, flexibility, training, Kabaddi.

1. INTRODUCTION

Many severe health and fitness issues have emerged as a direct consequence of the medical and technological advancements that have made our lives simpler. The most important thing is that you be physically healthy and fit. There are so many benefits to working out that it's almost like a magic potion. The cardiovascular and respiratory benefits are complemented by the fat loss. Strength, endurance, and mental acuity are all enhanced by the boost in energy levels. It's the most vital sort of physical activity you may take part in. In addition to keeping us alert, yoga also elucidates a way of moving forward in life. It's worth noting that India is credited as the birthplace of kabaddi, and that it's also a very effective sport.

Kabaddi's widespread popularity and accessibility have earned it the moniker "GAME OF THE MASSES." The fact that no special gear is required to play makes it a huge hit in underdeveloped regions. Traditionally an outdoor activity played on clay courts, recent years have seen an uptick in popularity of indoor synthetic court tennis. Men's and junior boys' games go 45 minutes and have a 5-minute halftime in which the teams switch ends. It lasts for 35 minutes for girls and sub-junior boys, with a 5-minute break in the middle.

Kabaddi is one of the most popular sports in India. Similarly, this sport is gaining respect in the Asian sporting community. It's a team sport, so you'll be playing with other people. Unlike in other disciplines, where we only use our mental and physical talents in part, sport is a medium through which a player cultivates both physical and cerebral abilities, ultimately resulting in a conscious manner of accomplishing whatever one does most successfully. Kabaddi is unlike any other team sport since it requires no special equipment and involves a breath-holding act that strengthens the brain. Kabaddi is a true people's game since it uses the straightforward Tag Game-style method of a game played only via physical contact. There is no need for a costume, expensive equipment, or a club reservation. With its emphasis on "Cant holding," a unique aspect of Kabaddi, the sport promotes the development of physical strength, stamina, and endurance and also increases cardiovascular endurance and resistance. Because of the close quarters, one's flexibility and agility are fine-tuned as they train to cover ground at a rapid clip in only 20 feet to 30 feet (10 metres to 12 metres). The speed of the player's eyes and body increases.

The immense psychological strain of holding cent forces one to regulate thought and action. He must mentally assess his energy and space expenditures in order to improve his response time. His physical actions are coordinated with his teammates and are linked to the actions of his near opponent. Although Kabaddi is sometimes categorised as a combat sport, it is really a game of challenge between one individual (the raider) and

a team of seven players. Briefly, the Kabbadi game calls for both cerebral [psychological] and physical abilities. In terms of mental abilities such as self-assurance, negative-energy management, focus, concentration, toughness, coordination, killer instinct, sportsmanship, the ability to make strategic decisions, and the will to play well on a team. On the other hand, in terms of physiological abilities, speed, power, endurance, flexibility, quickness of motion, and hand-eye-limb coordination are all essential. Flexibility is essential for kicking, spinning, and grappling with ankle legs and other objects. In this situation, leg strength is more important than acceleration speed. Endurance and dexterity are also crucial.

The job of the Kabadi raider is crucial. A successful raider demonstrates aggression and mental fortitude. He need to have complete faith in his own competence and expertise. Yoga, which has its roots in Indian culture, is a science that may be used to hone both the aforementioned body and mind abilities. The term "yoga chittavruti niroddrona" is used to describe this practise. Both may be honed by the practise of certain Asanas, Pranayam, Dhana, and Kriya techniques.

2. LITERARTURE REVIEW

Sangwan, Sandeep (2018). Researchers wanted to see how certain yoga poses might affect the speed and agility of kabaddi players. Thirty male kabaddi players (aged 14-18) from Mdu, rohtak kabaddi academy were chosen at random to participate in the research. Tad asana, trikona asana, Padma asana, vira asana, paschimottan-asana, hala asana, dhanur asana, and bhujang asana were all that were allowed as far as asana went. The 50-meter sprint and the sit-and-reach box test were used to gather data both before beginning the specified asana training programme for 2 weeks (pre-test) and immediately after the training programme concluded (2-week post-test). The paired sample t-test was used to analyse the effects of asana on both speed and flexibility. The p-value used for significance was 0.05. Statistical analysis showed the experimental group significantly outperformed the control group on measures of both speed and adaptability.

Das, Sumitra (2020). Nowadays, individuals from many walks of life and cultures pursue their interests and skills. The importance of yoga is increasingly being shown. Yoga is beneficial for both your body and mind, and may be thought of as a sort of exercise. The term yoga originates in Sanskrit. The Sanskrit word "yuj," from which the word "yoga" is derived, implies to join, to have joints, and to maintain equilibrium. It takes a team to play Kabaddi. To play, two teams of seven individuals face off against one another. They only play on half a court. It was in India that this game was first played. As an Indian sport, Kabaddi has a rich history. Nicknames for the sport of kabaddi include hu-tu-tu, ha-du-du, and so on. Kabaddi is not a game that may be played by players of different sexes. Kabaddi is very well-known in South Asian nations.

Varaprasada Rao Kagitha, (2018). The goal of this research is to determine whether or not certain engine fitness factors and playing capability surrounding male Kabaddi players are affected by intensive preparation using yogic practises. In order to accomplish this goal, sixty male Kabaddi players were randomly selected from the Guntur area of Andhra Pradesh. Individually, the selected subjects ranged in age from 18 to 25, in height from 165 to 170 centimetres, and in weight from 55 to 65 kilogrammes. The respondents were randomly split into three groups of twenty. Those in Group "A" had intensive training, those in Group "B" underwent intensive training combined with yogic practises for four sessions per week, and those in Group "C" served as a control group, without undergoing any special training outside of the regular curriculum. None of the subjects seemed agitated or eager to change the channel to the pre-show. A licenced doctor checked the test participants out and gave his or her approval for them to take part in the training.

Dr. Yallappa Yoga et.al (2020) Kabaddi is a kind of team sport that is played without the use of any equipment and has a breath-holding act that strengthens the brain. Kabaddi, often known as the "Real Man's Game," is played using the straightforward Tag Game-style method of contact. There is no requirement for a costume or to reserve any expensive club equipment in order to play this game. Muscular strength, stamina, and endurance are all important for this sport, and the "Cant holding" mechanic adds to these qualities, as does the enhancement of cardiovascular resistance. With just 20 feet to 30 feet (10 to 13 metres) to work with, players here must acquire exceptional flexibility and agility in order to keep up with the action. As a result, your eye and bodily reflexes will increase in speed. This situation emphasises the mental condensing of response time with estimates of energy and location. Players' physical actions, in sync with their teammates, are linked to the nearby actions of their adversaries. Traditional Kabaddi pits a lone "raider" against seven "defenders" in a kind of aggressive tag.

3. METHODOLOGY

The researchers set out to determine whether or not kabaddi players' muscular strength endurance and skill performance factors improved after participating in a resistance training programme that included yogic practises with a low circuit type and high volume. The individuals were randomly split into four groups of twenty. There was zero effort made to find common ground between the two parties. The subjects are briefed by the researcher about the nature of the study and the training regimen. Each person in this research agreed to take part in it voluntarily. The compiled data, when presented numerically, however authentic and dependable, would not provide us with any meaningful insight in terms of our requirements. The information must be sorted with the use of statistics, examined scientifically, evaluated, and concluded wisely. Muscular fitness parameters, including muscular strength, leg explosive power, muscular strength endurance, and Kabaddi offensive and defensive abilities, were measured in this research.

This research employed a random group design with a pre- and post-test. This method utilises a random selection process to divide a sample into two or more categories. In this study, the researcher made little effort to ensure that the groups were comparable. One hundred and twenty subjects were randomly assigned to one of four groups; group I (n = 20) participated in the Yoga Practice Group (YPG), group II (n = 20) participated in the Yoga Practice with Low Volume Circuit Resistance Training Group (YPLVCRTG), and group III (n = 20) participated in the Yoga Practice with Periodized High Volume Resistance Training Group (YPPHVRTG) for a period of 12 weeks. Subjects in Group IV (n = 20) served as a control group (CG) and received no training outside of their usual duties.

While participants were allowed to withdraw permission at any time should they experience any pain, no individuals did so. The data distribution was roughly estimated using descriptive statistics like mean and standard deviation. The 't' test was used to see whether there were statistically significant differences between the groups on the selected variables. The significance test for physical strength–endurance and skill–performance kabaddi methods was set at the 0.05 level of confidence.

4. RESULT OF THE STUDY

Gains and losses in mean scores on criteria variables measuring physical fitness and skill performance are analysed statistically, and the results are shown in Tables.

Table-1 Comparison of Pre-Test and Post-Test Mean Gains/Losses in Muscular Strength, Endurance, and Skill Performance Variables among Kabaddi Players in the Yogic Practices Group (Ypg, Group-I).

VARIABLE	Pre-Test Mean ± S. D.	Post-Test Mean ± S.D	M.D	S.E.M	't' ratio
MUSCULAR STRENGTH ENDURANCE	24.10 ± 3.31	26.25 ± 3.32	2.15	16.37	16.376*
OFFENSIVE SKILL	6.35 ± .67	7.35 ± 0.58	1.00	9.74	9.70*
DEFENSIVE SKILL	6.25 ± 0.78	7.40 ± 0.68	1.15	7.66	7.66*

*Significant At 0.05 Level

Using a t-test, the yogic practises group received t-values of 16.37 (Muscular Strength Endurance), 9.747 (Offensive Skill), and 7.667 (Defensive Skill), as shown in Table 1. (Defensive Skill). In order for the t-values obtained to be statistically significant at the 0.05 level for degrees of freedom 1, 19, the critical value needed to be 2.09. Because the obtained t-values on the selected criterion variables were greater than the required critical values, it was determined that the yogic practises group resulted in significantly better scores on measures of offensive skill (+1.000.05), defensive skill (+1.150.05), and muscular strength and endurance (+2.150.05).

Table-2 Significance Of Mean Gains / Losses Between Pre And Post Test During Yogic Practices With Low Volume Circuit ResistanceTraining Group (Yplvcrtg, Group– Ii) On Muscular Strength Endurance And Skill Performance Variables Of Kabaddi Players

VARIABLE	Pre- Test Mean ± S.D	Post – Test Mean ± S.D	M.D	S.E.M	't' ratio
MUSCULAR STRENGTH ENDURANCE	23.95 ± 3.03	27.35 ± 2.85	3.40	0.2103	16.17*
OFFENSIVE SKILL	6.35 ± 0.58	7.65 ± 0.74	1.30	0.1277	10.17*
DEFENSIVE SKILL	6.25 ± 0.96	7.70 ± 0.80	1.45	0.1535	9.45*

*Significant At 0.05 Level

The t-values for physical strength endurance (16.17), offensive skill (10.17), and total score (9.45) from the yogic practises with low volume resistance training group are listed in Table 2. (Defensive Skill). The derived t-values for degree of freedom 1–19 needed a critical value of 2.09 to be statistically significant. Based on the fact that the obtained t-values on the selected criterion variables were greater than the required critical values, it was determined that the yogic practises with low volumeresistance training group resulted in significant improvements in Muscular strength Endurance (+3.400.05), Offensive Skill(+1.300.05), and Defensive Skill (+1.450.05).

Table-3 Significance Of Mean Gains / Losses Between Pre And Post Test During Yogic Practices With Periodised High VolumeResistance Training Group (Ypphvrtg, Group– Iii) On Muscular Strength Endurance And Skill Performance Variables OfKabaddi Players

VARIABLE	Pre- Test Mean ± S. D.	Post- Test Mean ±	M.D	S.E.M	't' Ratio
MUSCULAR STRENGTH ENDURANCE	24.15 ± 2.92	28.15 ± 2.39	4.00	.3078	12.99*
OFFENSIVE SKILL	6.40 ± .5026	8.55 ± 0.51	2.15	.1313	16.37*
DEFENSIVE SKILL	6.25 ± 0.78	8.45 ± 0.60	2.20	.1376	15.98*

*Significant At 0.05 Level

The t-values (12.99 for Muscular Strength Endurance, 16.37 for Offensive Skill, and 15.98 for Total Exercise Performance) achieved by the Yoga with Periodized High Volume Resistance Training group on Muscular Strength Endurance are shown in Table 3. (Defensive Skill). T-values of 2.09 were needed for degrees of freedom 1–19 at the 0.05 level of significance. Therefore, since the obtained t-values on the selected criterion variables were greater than the necessary critical values, it was concluded that the produced significantimprovement in Muscular yogic practises with periodised high volume resistance training group Muscular Strength Endurance(+4.000.05), Offensive Skill (+2.150.05), and Defensive Skill (+2.200.05).

Table-4 Significance Of Mean Gains / Losses Between Pre And Post Test During Control Group On Muscle Fitness Parameter OfMuscular Strength Endurance And Skill Performance Variables Of Kabaddi Players

VARIABLE	Pre-Test Mean ± S.D	Post-Test Mean ± S.D	M.D	S.E.M	't' ratio
MUSCULAR STRENGTH ENDURANCE	24.00 ± 2.36	24.20± 2.3306	0.20	0.091	2.02
OFFENSIVE SKILL	6.45 ± .7592	6.70 ± .9234	0.25	0.1602	1.56
DEFENSIVE SKILL	6.25 ± .5501	6.35 ± .5871	0.10	0.068	1.45

*Significant At 0.05 Level

The 't' values for the control group are shown in Table 4; they are 2.02 for physical strength endurance, 1.56 for offensive skill, and 1.45 for total repetitions (Defensive Skill). For degrees of freedom between 1 and 19, the derived t-values were not statistically significant at the 0.05 level, requiring a critical value of 2.09. Therefore, it was determined that the control group did not result in a statistically significant improvement in Muscular Strength Endurance (+0.250.05), Offensive Skill (+0.250.05), or Defensive Skill (+0.100.05) because the obtained t-values on the selected criterion variables did not meet the required critical values.

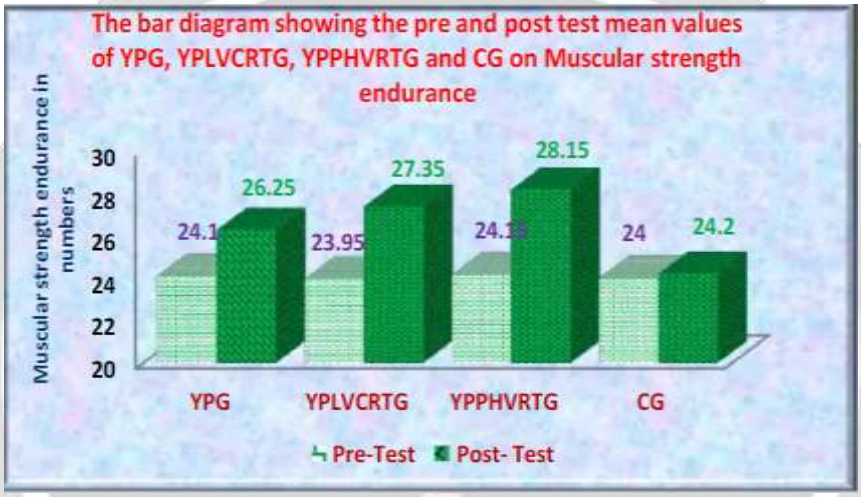

Figure 1

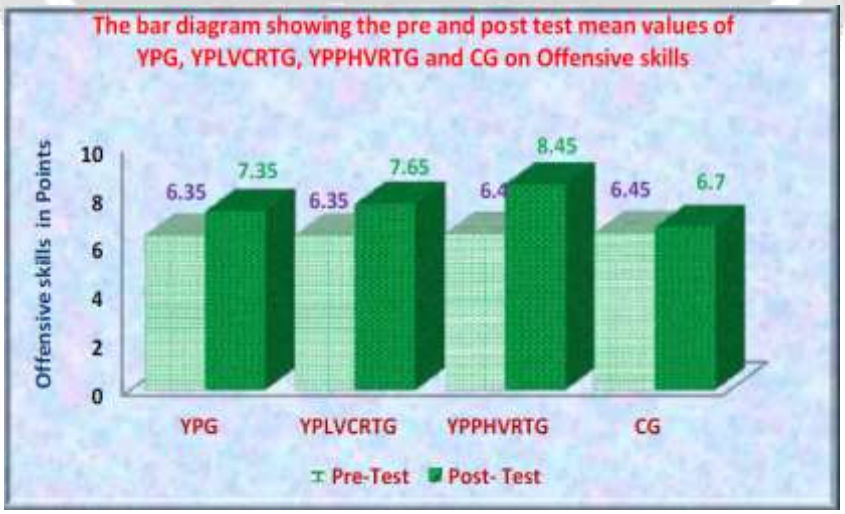

Figure 2

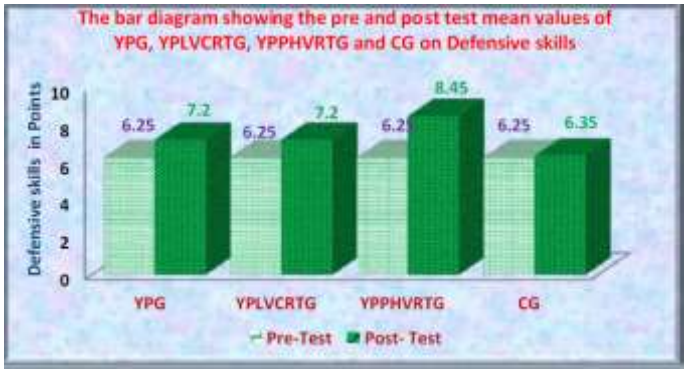

Figure 3

Muscular Strength Endurance

Increases in muscularstrength endurance of 2.15, 3.40, and 4 numbers, respectively, were observed between pre- and post-training in the yogic practises with low volume circuit resistance training group (YPLVCRTG), and the yogic practises with periodised high volume resistance training group (YPPHVRTG). Compared to the YPLVCRTG group, the YPG group, and the control group, the YPPHVRTG group performed considerably (p.05) better. There was a statistically significant improvement (p0.05) between the YPLVRTG group and the YPG and the control group. Additionally, the YPG group showed both a little gain in physical strength endurance as judged by sit-ups and a large improvement over the control group.

Attacking Abilities

Offense scores improved by 1.00 points, 1.30 points, and 2.15 points, respectively, between the pre- and post-training periods in the experimental groups (YPG), yogic practises with low volume circuit resistance training group, and yogic practises with periodised high volume resistance training group. Compared to the YPLVCRTG group, the YPG group, and the control group, the YPPHVRTG group performed considerably better (p.05). Results showed that the YPLVRTG group was superior to both the YPG and the control group (p0.05). And in terms of attacking prowess, the YPG group was rated by the assessors as having made both a little improvement and a large improvement over the control group.

Protective Abilities

There was a substantial pre-to-post training gain in offensive abilities across all three experimental groups (YPG; low volume circuit resistance training group; YPLVCRTG; periodized high volume resistance training group; YPPHVRTG; and 2.20 points across all three groups).

It was determined that the YPPHVRTG group performed considerably better than the YPLVCRTG group, the YPG group, and the control group (p.05). When compared to the YPG and the control group, the YPLVRTG group performed considerably better (p0.05). And when it came to defensive abilities, the judges deemed the YPG group to have made a small improvement and be much better than the control group.

The effect of selected asana on speed and flexibility of kabaddi players.

Table no 5 Description Of Mean, Standard Deviation, And T-Ratio For The Data On Speed Of Pre And Post Test Of Control And Experimental Group

GROUPS		MEAN	SD	MEAN DIFFERENCE	T- RATIO
CONTROL GROUP	PRE-TEST	7.44	0.29	0.06	3.56*
	POST-TEST	7.38	0.24		
EXPERIMENTAL GROUP	PRETEST	7.53	0.29	0.30	15.37*
	POST TEST	7.23	0.23		

*Significant at 0.05 level Tabulated t0.05 (14) = 1.76 Tabulated t0.05 (28) = 1.70

Table no 6 Description of mean, standard deviation, and t-ratio for the data on flexibility of pre and post-test of control and experimental group

GROUPS		MEAN	SD	MEAN DIFFERENCE	T- RATIO
CONTROL GROUP	PRE-TEST	14	2.03	0.67	2.46*
	POST-TEST	14.67	1.49		
EXPERIMENTAL GROUP	PRETEST	15	1.64	1.53	5.00*
	POST TEST	16.53	1.18		

*Significant at 0.05 level Tabulated t0.05 (14) = 1.76 Tabulated t0.05 (28) = 1.70

Using the calculated t-tabulated t-ratio value of 1.76 and 1.70, respectively, at the 0.05 level for 14 and 28 degrees of freedom, the results of table no. 1 show that there is a significant mean difference in speed between the mean of the pre- and post-test control group and the pre- and post-test experimental group. Table 2 shows that there is a statistically significant difference between the means of the control group and the experimental group before and after the test, as shown by a t-ratio of 1.76 at the 0.05 level for 14 degrees of freedom and 1.70 at the 0.05 level for 28 degrees of freedom.

5. CONCLUSION

These inferences are based on the data presented. The YPPHVRTG saw substantial improvements in offensive and defensive skill performance variables as well as in the fitness parameters of muscular strength, muscular strength and endurance, and explosive power with regular yoga practise. It is essential that kabaddi players practise carefully chosen asana with the appropriate consistency and regularity in order to get the maximum development of speed and flexibility.

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