

## **Effect of Hill Running for development of Explosive Power among Kabbadi Players of JNTU Kakinada, A.P.**

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### **Abstract:**

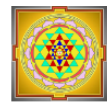
The objective of the study is to determine the effect of Hill Running for development of explosive Power among Kabbadi Players of J.N.T.U. Kakinada between the age group of 18 to 25 Years. The sample for the present study consists of 30 Male Kabbadi Players out of which 15 are experimental group and 15 are controlled group. Hill Running were given to the Experimental Group along with general training of Kabbadi and control group has doing general Training of Kabbadi for Twelve weeks. To assess the explosive power in legs Standing Broad Jump Test were used in the Pre Test and Post Test of the Study. This study shows that the Experiment Group increase the explosive power compare to the control group. It is concluded that due to Hill Running there is a improvement of explosive power among Kabbadi Players. Key words: Hill running, Kabbadi, explosive power etc.

### **INTRODUCTION:**

Hill running has a strengthening effect as well as boosting an athlete's power and is ideal for those athletes who depend on high running speeds in games like football, rugby, basketball, cricket players and even runners. To reduce the possibility of injury hill training should be undertaken once the athlete has a good solid base of strength and endurance (Barnes & Kilding, 2015).

Hill training offers the following benefits: helps develop power and muscle elasticity, improves stride frequency and length, develops co-ordination, encourages the proper use of arm action during the driving phase and feet in the support phase, develops control and stabilization as well as improved speed (downhill running), promotes strength endurance, develops maximum speed and strength (short hills) and improves lactate tolerance (Nigatu & Aschenaki, 2017).

R. Kumar (2018) studied about the effect of Hill Training for development of Aerobic fitness among Middle and long distance runners of Hyderabad District in India. The sample for the study consists of 45 Middle and long-distance runners between the age group of 18 to 20 Years those who have participated in many middle and long-distance events since last 3 Years. The selected subjects were randomly divided into three equal groups of 15 each. Group I is Experimental Hill Training Group, Group II is Experimental Fartlek Training Group and Group



III is Control Group. The Experimental Groups were given Training Alternate days for 12 Weeks in addition to their normal practice on other days. The Control Group were given routine training. The Data were collected in Pre-Test and Post Test for all groups using the 12 Min Run Cooper Test. The collected data were analyzed statistically by using ANCOVA. The Results of the Study showed that due to Hill Training and Fartlek Training there was a significant development of Aerobic fitness among Experimental Groups.

Hill Running can be extremely beneficial to Kabbadi Players because that strength can help Kabbadi Players in their Performance.. Strength in their core enables them to maximize their power output, while stability allows them to perform complex athletic movements that require coordination, balance, and technical skill.

Kabbadi is basically a combative sport, with seven players on each side; played for a period of 40 minutes with a 5 minutes break (20-5-20). The core idea of the game is to score points by raiding into the opponent's court and touching as many defense players as possible without getting caught on a single breath.

### **Purpose of Research:**

The purpose of this research is to determine the effect of Hill Running for development of explosive Power among Kabbadi Players of J.N.T.U. Kakinada between the age group of 18 to 25 Years

### **Methodology.**

. The sample for the present study consists of 30 Male Kabbadi Players out of which 15 are experimental group and 15 are controlled group.

Sl. NO	Name of the University	Sample	Total number of subjects
1	JNTU Kakinada	15 Raiders	30
		15 Defenders	

Hill Running were given to the Experimental Group along with general training of Kabbadi and control group has doing general Training of Kabbadi for Twelve weeks..To assess the explosive power in legs Standing Broad Jump Test were used in the Pre Test and Post Test of the Study.

This study shows that the Experiment Group increase the explosive power compare to the control group

### Results and Discussion:

The Independent Samples t Test Statistics is applied for the Study. The Comparison were made among Experimental Group and Control Group in Pre Test and Post Test Mean

Table 1: Showing the Mean values and Independent Samples Test of Standing Broad Jump between experimental and control groups of Kabbadi Players.

Variables	Group	Pre Test	Post Test	t	P - Value
		Mean $\pm$ SD	Mean $\pm$ SD		
Standing Broad Jump	Experimental	2.32 $\pm$ 0.158	2.41 $\pm$ 0.185	3.55	0.001
	Control	2.26 $\pm$ 0.159	2.20 $\pm$ 0.161		

\*Significant at 0.05 level

In Table 1 the Mean values of Experimental Group of Kabbadi Players in Pre Test is 2.32 and Control Group Kabbadi is 2.26. Due to Hill Running the Experimental Group has increased the mean values in post test is 2.41 and due to general training the Control group has decreased from 2.26 to 2.20. The Results of the Study shows that Experimental Group of Kabbadi Players has increased in the Performance of Standing Broad Jump.

### Conclusions:

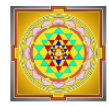
It is concluded that due to Hill Running there will be improvement in Explosive Power among Kabbadi Players. In this study due to the Hill Running Trainings there is a improvement in Explosive power of legs among Kabbadi Players.

### Recommendations:

It is recommended that similar studies can be conducted on other events in other events and also female Kabbadi players. This type of study is useful to coaches to give proper coaching for development of motor qualities for improvement of performance Sports and Games.

### References:

Prof. Rajesh Kumar (2020) Effect of Plyometric and Circuit Training On Selected Physical Variables among Sprinters of Hyderabad District of Telangana State, IOSR Journal of Sports and Physical Education (IOSR-JSPE) e-ISSN: 2347-6737, p-ISSN: 2347-6745, Volume 7, Issue 2, (Mar –Apr 2020), PP 55-57



Barnes KR & Kilding AE. Strategies to improve running economy. *Sports Med* 507 45(1):37-56, 2015.

Nigatu worku & Aschenaki Taddese, The impact of hill training on middle and long distance athletes: with specific reference to oromia water works athletics club, *Ethiopia International Journal of Scientific and Research Publications*, 7 (11), 2017.