



## EFFECT OF GAME SKILL TRAINING WITH AND WITHOUT YOGIC PRACTICES ON LEG EXPLOSIVE POWER PARAMETERS AMONG TANJORE DISTRICT WOMEN VOLLEYBALL PLAYERS

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**ABSTRACT** The present study was to investigate the effect of game skill training with and without yogic practices on leg explosive power parameters among Tanjore district women volleyball players. To achieve this purpose of the study sixty (N=45) district level women volleyball players were selected from Tanjore district, Tamil Nadu state, India, during the year 2019-20. The subject's age ranges from 17 to 23 years. The selected subject were divided into three equal groups consists of fifteen subject each namely two experimental groups and control group from college students. The experimental group I underwent Game skill training group and experimental group II underwent Game skill training with yogic practices group programme for twelve weeks. The control group was not taking part in any exercise during the course of the study. The dependent variable leg explosive power parameter selected for the study, it was measured by standing broad jump test unit measured by meters. Pre-test was taken before the exercise period and post- test was measured immediately after the twelve weeks exercise period. The data collected from the three groups were statistically analyzed for significance, the analysis of covariance (ANCOVA) was used and the F ratio was found out. The Scheffe's test is applied as post-hoc test to determine the paired mean differences. The level of significance will be fixed at .05 level of confidence for all the cases. These results suggest that both game skill training group and game skill training with yogic practices group improve leg explosive power compared than the control group.

**KEYWORDS :** Game skill training, Yogic practices, Volleyball player and Leg explosive power

### INTRODUCTION

Volleyball is a sport played by two teams consisting of 12 players each on a playing court, divided by a net. The object of the game is to send the ball over the net in order to ground it on the opponent's court and to prevent the same effort by the opponent. The team has three hits or contacts to return the ball. To play volleyball one has to be good at vertical jump, known as explosive power. A volleyball match can be played for five sets which means a match can last about 90 minutes, during which a player can perform 250 -300 actions dominated by the explosive type of strength of the leg muscles. The total number of actions as jumps takes up around 50-60% high speed movements and change of direction in space about 30% and as falls about 15%. The spike and block actions are dominated by the corresponding explosive type of strength which is referred to as a player's vertical jump which is usually the key to winning point (Stojanovic, Radmila Kostic 2004).

Yoga is a practical physiological training, which if practiced can exalt man to the supra Mundane level'. Yoga asanas are Indian's unique contribution to physical education. Yoga and physical education may be compared to two bullocks hitched to shaft as they are for the judicious blending of the education of the body and the mind. There is no denial of the fact that yoga and physical education attach importance by gaining the benefits of physical health, mental health, physical fitness and peace of mind through their regular practices. Physical education concerns with anatomical aspects of the physique with its physiological reactions for a given activity. The ultimate aim of which is to enjoy a good health and optimum fitness. Yoga is providing a multidimensional development and it has now become an adjunct to physical education.

### METHODS & MATERIALS

This study was selected sixty (N=45) district level women volleyball players were selected from Tanjore district, Tamil Nadu state, India, during the year 2019-20. The subject's age ranges from 17 to 23 years.

### RESULTS & INTERPRETATION

**Table No.1.** Analysis of Covariance for the Pre, Post and Adjusted Post Test Means Values for Game skill training with yogic practices group, Game skill training without yogic practices training group and Control group on Leg explosive power (Leg explosive power mean value measure by meter)

Test	Game Skill training with yogic practices group	Game Skill training without yogic practices group	Control group	Source of variance	Sum of square	df	Mean square	'F' ratio
Pre test Mean	2.22	2.23	2.23	Between	0.0009	2	0.0003	0.552
				Within	0.0616	42	0.0005	
Post test Mean	2.25	2.28	2.20	Between	0.1428	2	0.0476	53.95*
				Within	0.1024	42	0.0009	

They were divided into three groups namely Game skill training with yogic practices group (Experimental group I), Game skill training without yogic practices group (Experimental group II), and control group (group III) each consists of 15 subjects. The experimental groups (I & II) were subjected to twelve weeks of Game skill training with yogic practices and Game skill training without yogic practices respectively, and the group III acted as control. The experimental groups I used exercises of 90°- 90° (tossing and hitting arm) ,1/2 turn ,Contact through the center of ball , Toss two-hand underhand , Follow through (6 o'clock to 12) , Toss above head , Toss (in front)-step-hit , Toss-step-hit ,Open hand facing net , Contact below center of ball ,Snap wrist as extending arm with Dhanurasana, Navasana, Trikonasana, Bhujangasana, Sarvangasana, Tadasana, Vajrasana, Utkattanasana and experimental group II used exercises of 90°- 90° (tossing and hitting arm) ,1/2 turn ,Contact through the center of ball , Toss two-hand underhand , Follow through (6 o'clock to 12) , Toss above head , Toss (in front)-step-hit , Toss-step-hit ,Open hand facing net , Contact below center of ball ,Snap wrist as extending arm and the load given were progressively increased from 50%,60%,70% intensity level Game skill training with yogic practices and Game skill training without yogic practices drills respectively for one hour per day for three days a week for a period of twelve weeks. The subjects of all the three groups were tested on leg explosive power prior to and after the training period.

To ascertain leg explosive power parameter measured by standing broad jump tests accordingly the mean value count by meter.

### Statistical Technique

The significance of the difference among the means of experimental group was found out by pre-test. The data were analyzed analysis of covariance (ANCOVA) technique was used with 0.05 levels as confidence. Analysis was performed using SPSS 20.0 (SPSS Inc Software).

Adjusted post test mean	2.26	2.28	2.05	Between	0.1377	2	0.0459	128.92
				Within	0.0409	41	0.0004	

\*Significant at 0.05 level of confidence. Table value required for significance at 0.05 level with df 2 and 42 and 2 and 41 is 3.22.

It is clear from Table I that the pre test mean value of Standing broad jump for game skill with yogic practices training group is 2.22, game skill without yogic practices training group is 2.23 and control group is 2.23. The obtained F-ratio 0.552 is less than the table value of 3.22 required for df 2 and 42 at 0.05 level of significant. It is inferred that there is statistically no significant variation among game skill with yogic practices training group, game skill without yogic practices training group and control group before the commencement of training programme.

From Table I we can understand that the post test mean scores secured by the game skill with yogic practices training group, game skill without yogic practices training group and control group are 2.25, 2.28 and 2.20 respectively. The F-ratio of 53.95\* arrived at the statistical calculation is greater than the table value of 3.22 required for df 2 and 42 at 0.05 level of significance. It reveals that the two training groups have demonstrated significant variations on Standing broad jump at the end of training programme.

Table I further shows that the adjusted post test mean values for game skill with yogic practices training group, is 2.26, game skill without yogic practices training group is 2.28 and control group is 2.05. The obtained F-ratio 128.92\* and is higher than the table value of 3.22 required for df 2 and 41 at 0.05 level of significance. It is found that significance difference exist among the two groups on Standing broad jump, after adjusting the initial mean difference on the post test mean.

**Table II: Scheffe's test for the differences between the adjusted post-test paired means on Leg explosive power (Leg explosive power means count by meter)**

Game skill with yogic practices training group	Game skill without yogic practices training group	Control group	Mean difference	C.I value
2.26	2.28	-	0.02	0.14
2.26	-	2.28	0.07	
-	2.28	2.23	0.23	

The post hoc test was used to compute the confidence interval for the adjusted post test means and to the significance of the mean difference. The confidence interval for Standing Broad Jump was 0.14.

The table II (a) presented for showing the adjusted post test means of Game skill with yogic practices training group, Game skill without yogic practices training group and control groups. The adjusted post test means difference between the groups of Game skill with yogic practices training group and Game skill without yogic practices training group was 0.02. When computed with the confidence interval the value was lower. The results of the study indicated that there was no significant improvement in the Standing Broad Jump in both Game skill with yogic practices training group and Game skill without yogic practices training group.

The adjusted post test mean difference between Game skill with yogic practices training group and control group was 0.07 when compared with the confidence interval 0.14, the obtained value was lower. The results of the study indicated that there was insignificant improvement in Standing Broad Jump as a result of Game skill with yogic practices training group and control group.

The adjusted post test mean difference between Game skill without yogic practices training group and control group was 0.23. When compared with confidence of interval 0.14, the obtained value was lower. The results of the study indicated that there was insignificant improvement in Standing Broad Jump as a result of Game skill without yogic practices training group and control group.

The result of the study indicated that there was significant improvement in Standing Broad Jump as a result groups. As per the result of the study skill with yogic practices training group were improved Standing Broad Jump better when compared to game skill without yogic practices training group.

**DISCUSSION OF FINDING**

Improvement in leg explosive power was significant for all the training groups, i.e. group – I (game skill without yogic practices training

group. and group - II (game skill without yogic practices training group). Lyttle Andrew D., G.J.Wilson and K.J.Ostrowski. (1996) found that there was a significant improvement in leg explosive power in game skill with yogic practices training group and game skill without yogic practices training programme.

**CONCLUSION**

After completion of all work following conclusions were draw by the researcher:

1. Game skill training with yogic practices group was possessed improved leg explosive power than the Game skill training without yogic practices group and control group.
2. Game skill training without yogic practices group was possessed improved leg explosive power than the control group.

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