IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Effect Of Yoga And Core Stability Exercises In Combination With Drill Training On Volleying Ability Among Tribal Volleyball Players

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ABSTRACT

The study was to examine the isolated and combined yoga and core stability exercises in combination with drill training on volleying ability among tribal volleyball player. Total N=100 (hundred) tribal men volleyball players recruited randomly from various college of Prakasam district AP, their age period ranged from 18 years to 25 years as per subject's secondary board of education certificate and, who at least participated college level volleyball games. The chosen men tribal volleyball players was randomly recruited into four groups each group n=25 men tribal volleyball players i.e. empirical groups I men tribal volleyball players underwent: yoga practice in combination with volleyball base skill drills training (YPDV=25), empirical group II men core stability exercises in combination with volleyball base skill drills training (CSDV=25), empirical group III underwent: combined yoga practice and core stability exercises in combination with volleyball base skill drills training (YCDV = 25) tribal volleyball players and non training group players (NTVP = 25) tribal volleyball players . NTVP was practiced only their respective specialization game. The training period was fixed for 12- week's duration and four sessions in a week. The measurement of volleying ability scores was collected through Brady's wall volley test before and after the completion of specific training. The collected score's were analyzed through ANCOVA and level of significant was restricted at 0.05 levels. The study found that isolated, combined yoga and core stability exercises in combination with drill training had positive significant impact to increase volleying ability score performance of tribal men volleyball players of three empirical group's players comparative to control group.

Keywords: – Yoga, core, exercises, volleying ability and volleyball.

Introduction:

Core strength for volleyball player is a key component of taking game to the next level. A strong core will improve volleyball player's ability to perform skills like passing, jumping, changing direction, blocking and increase cardio endurance. Core serves two purposes to resist forces in order to stabilize body and produce power. There are many exercises that can help volleyball players not only get a stronger core but also help better connect player core with arm swing. To hit powerful attack and serve in volleyball need to build strong core muscles. By firing more muscles and increasing the level of intensity a volleyball player can maximize training time and results. The volleyball players need strong core muscles for powerful movements, quick reactions and controlled dives.

The benefit of yoga for athletes brings harmony to life, calm nerve system, improves reaction, increase concentration, helps to sleep well, relieves depression, makes happier, helps to relax, makes athletes stress free, improve memory, helps to normalize weight, Normalize blood pressure, strengthens bones, improves heart rate, make flexible, increase immunity, improves metabolism, improves posture, prevent joint problems, increase blood flow, keep muscles strong and stretch and protect spine.

Statement of the Research Problem:

To analyze the "Impact yoga and core stability exercises in combination with drill training on volleying ability among tribal volleyball player".

Research Hypothesis:

- There will be a significant increase in score of volleying ability performance of empirical group's tribal volleyball players after the twelve weeks impact of isolated and combined yoga and core stability exercises in combination with volleyball drill training when compared with control group tribal volleyball players.
- The combined yoga and core stability exercises in combination with volleyball drill training will be more effective than the isolated training program.

Methodology:

The study was to measure the isolated, combined yoga and core stability exercises in combination with drill training on volleying ability among tribal volleyball player. Total N=100 (hundred) tribal men volleyball players recruited randomly from various college of Prakasam district AP, their age period ranged from 18 years to 25 years as per subject's secondary board of education certificate and, who at least participated college level volleyball games. The chosen men tribal volleyball players was randomly recruited into four groups each group n=25 men tribal volleyball players i.e. empirical groups I men tribal volleyball players underwent: yoga practice in combination with volleyball base skill drills training (YPDV=25), empirical group II men core stability exercises in combination with volleyball base skill drills training (CSDV=25), empirical group III underwent: combined yoga practice and core stability exercises in combination with volleyball base skill drills training (YCDV = 25) tribal volleyball players and non training group players (NTVP = 25) tribal volleyball players . NTVP was practiced only their respective specialization game. The training period was fixed for 12- week's duration and four sessions in a week. The measurement of volleying ability scores was collected through Brady's wall volley test before and after the completion of specific training. The collected score's were analyzed through ANCOVA and level of significant was restricted at 0.05 levels.

Table - I

Analysis of Covariance for Volleying ability - Brady's wall volley test (number) of the SEDT, KEDT, SKDT and NTGP groups for tribal men volleyball players

Groups	YPDV	CSDV	YCDV	NTVP	SOV	Sum of squares	df	Mean Square	F' Ratio
Pre test mean	34.720	34.840	34.120	34.280	B	8.910	3	2.970	
SD	3.195	2.764	2.962	2.653	W	808.080	96	8.418	0.353^{NS}
Post test mean	42.760	43.080	42.600	33.560	B	1608.44	3	536.14	
SD	2.788	2.413	2.160	2.973	W	650.560	96	6.777	79.117*
Adjusted mean	42.757	43.076	42.605	33.563	B	1603.78	3	534.594	
					W	650.438	95	6.487	78.080*
Mean difference	+8.04	+8.24	+8.48	-0.72	-	-	-	-	-

Note: Table F-ratio value at 0.05 level of confidence for 3 and 96 (df) =2.68, 3 and 95 (df) =2.68

***Significant & NS: Not significant.**

***Significant**

YPDV: Yoga practice in combination with volleyball base skill drills training group tribal men volleyball players.
CSDV: Core stability exercises in combination with volleyball base skill drills training group tribal men volleyball players.
YCDV: Combined yoga practice and core stability exercises in combination with volleyball base skill drills training group tribal men volleyball players.
NTVP: Non training group tribal men volleyball players.

The above table-I shows that there is a significant difference on volleying ability performance among the four groups such as YPDV: yoga practice in combination with volleyball base skill drills training, CSDV: Core stability exercises in combination with volleyball base skill drills training group tribal men volleyball players, YCDV : Combined yoga practice and core stability exercises in combination with volleyball base skill drills training group tribal men volleyball players and NTVP: Non training group tribal men volleyball players. Since the 'F' value required being significant at 0.05 level for 3, 96 d/f and 3, 55 are 2.68, but the computation values of muscular strength endurance post and adjusted posttest 'F' values are 79.117and 78.080 respectively. Which are greater than the tabulated value, it shows that training is effective for positive changes in muscular strength endurance. Since the obtained 'F' ratio is found significant.

TABLE: 2

THE MUSCULAR STRENGTH ENDURANCE - BENT KNEE SIT-UPS (NUMBERS) RESULTS OF SCHEFFE'S METHOD TEST MEAN DIFFERENCES BETWEEN YPDV, CSDV, YCDV and NTVP GROUPS OF TRIBAL VOLLEYBALL PLAYERS

YPDV	CSDV	YCDV	NTVP	MD	CI
42.757	43.076	-	-	0.319^{NS}	2.093
42.757	-	42.605	-	0.152^{NS}	
42.757	-	-	33.563	9.194*	
-	43.076	42.605	-	0.471^{NS}	
-	43.076	-	33.563	9.513*	
-	-	42.605	33.563	9.043*	

Note: * Significant & NS: No significant

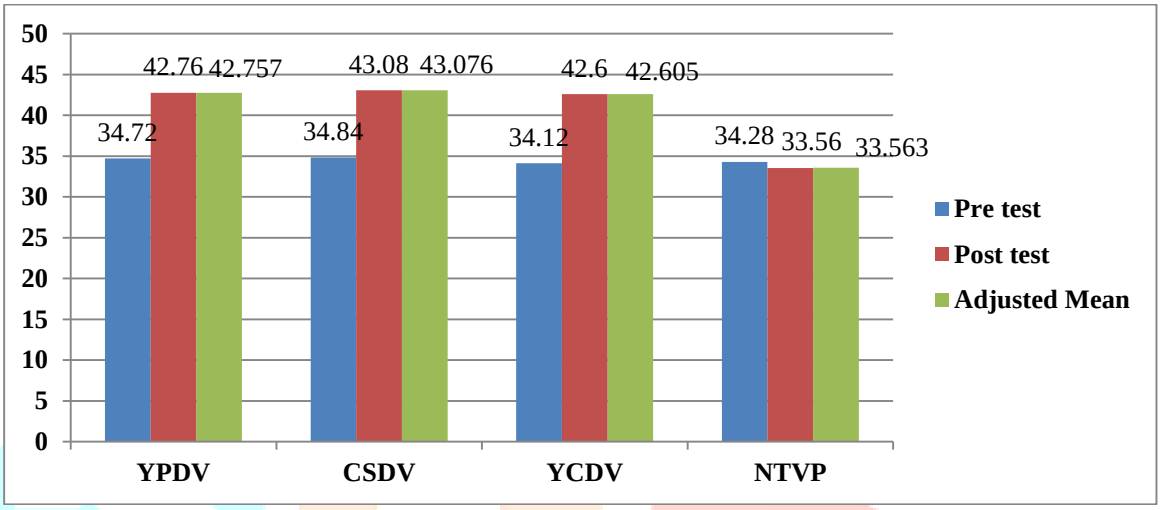
YPDV: Yoga practice in combination with volleyball base skill drills training group tribal men volleyball players.
CSDV: Core stability exercises in combination with volleyball base skill drills training group tribal men volleyball players.
YCDV: Combined yoga practice and core stability exercises in combination with volleyball base skill drills training group tribal men volleyball players.
NTVP: Non training group tribal men volleyball players.

In above table 2 : presented the adjusted final mean variations on Volleying ability - Brady's wall volley test (number) performance between the yoga practice in combination with volleyball base skill drills training (YPDV) tribal men volleyball players and non training group players (NTVP) tribal men volleyball players, core stability exercises in combination with volleyball base skill drills training (CSDV) tribal men volleyball players and non training group players (NTVP) tribal men volleyball players and combined yoga practice and core stability exercises in combination with volleyball base skill drills training (YCDV) tribal men volleyball players and non training group players (NTVP) tribal men volleyball players are 9.194, 9.513 and 9.043. These computation adjusted final mean variations values are larger than calculated formula CI value 2.093. Hence investigator recorded significant variations resulted between training groups and control groups tribal volleyball players after completion of 12-weeks empirical period.

The adjusted final mean variations of Volleying ability - Brady's wall volley test (number) performance between yoga practice in combination with volleyball base skill drills training (YPDV) tribal men volleyball players and core stability exercises in combination with volleyball base skill drills training (CSDV) tribal men volleyball players, yoga practice in combination with volleyball base skill drills training (YPDV) tribal men volleyball players and combined yoga practice and core stability exercises in combination with volleyball base skill drills training (YCDV) tribal men volleyball players & core stability exercises in combination with volleyball base skill drills training (CSDV) tribal men volleyball players and combined yoga practice and core stability exercises in combination with volleyball base skill drills training (YCDV) tribal men volleyball players are 0.319, 0.152 and 0.471. This computation adjusted final mean differences values is lower than calculated formula CI 2.093. Hence discover noted insignificant differences resulted between core stability exercises in combination with volleyball base skill drills training (CSDV) tribal men volleyball players and combined yoga practice and core stability exercises in combination with volleyball base skill drills training (YCDV) tribal men volleyball players after twelve weeks completion of 12-weeks empirical period.

The prior, final and adjusted post scores results mean of the YPDV, CSDV, YCDV and NTVP tribal volleyball players groups for Volleying ability - Brady's wall volley test (number) performance test clearly represented in bar diagram figure: 1.

FIGURE :1 THE VOLLEYING ABILITY - BRADY'S WALL VOLLEY TEST (NUMBER) PRE POST AND ADJUSTED POST TEST MEAN NUMBERS OF SEDT, KEDT, SKDT and NTGP GROUPS OF TRIBAL VOLLEYBALL PLAYERS PRESENTED IN BAR GRAPH



Discussion on Hypothesis:

- The first hypotheses stated that there will be a significant increase in score of volleying ability performance of empirical group's tribal volleyball players after the twelve weeks impact of isolated and combined yoga and core stability exercises in combination with volleyball drill training when compared with control group tribal volleyball players. The statistical analysis proved that isolated, combined yoga and core stability exercises in combination with volleyball drill training program significantly improved the volleying ability performance. Hence research first hypothesis accepted.
- The second hypotheses stated that combined yoga and core stability exercises in combination with volleyball drill training will be more effective than the isolated training program. The statistical analysis proved combined training is not superior to isolated training method. Hence research second hypotheses rejected.

Discussion and Findings:

The approach of isolated and combined yoga and core stability exercises in combination with volleyball drill training is better for upraise the volleying ability- Brady's wall volley test (numbers) than non training group tribal volleyball players. The list of empirical studies results that covers the volleying ability score performance are Navaneethan (2024) outcomes concluded that 12-weeks impact of complex training developed overall playing ability of male Bharathiar University Inter-Collegiate volleyball players. Alauthen and Kavithashri (2020) investigation discloses that 12 weeks strengthening training and resistance training resulted supportive improvement of spiking capacity of volleyball players. Parisa et al., (2023) outcomes of review show that different core stability protocols improves technical skill capabilities, performance, and sports skills as well as prevent injuries from volleyball players. Shengyao et al., (2022) outcome provided evidence that that strong core muscles helps to achieve better technical skill performance in competitions among volleyball athletes. Ayman and Said (2020) concluded that 12-weeks of core stability training has a strong correlation between muscles of the trunk and the ability for muscular arms and legs on improving the spike serve, cross spike and line spike in volleyball players.

Conclusions:

Tester determined that impact of isolated and combined yoga practice and core stability exercises in combination with volleyball base skill drills training result contributed to elevated the Volleying ability - Brady's wall volley test (number) performance than non training group tribal volleyball players. At last all the three experiments yoga practice and core stability exercises in combination with volleyball base skill drills training, core stability exercises in combination with volleyball base skill drills training and combined yoga practice and core stability exercises in combination with volleyball base skill drills training reveals alike results for pushup the Volleying ability - Brady's wall volley test (number) performance of men tribal volleyball players.

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