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Effect of Defense and Offense Skill Training on Selected Motor Fitness Variables Among Inter School Boys Volleyball Players

B. Balabaranidharan[1], Dr. K. Senthikumar[2]

[1]Ph.D scholar, Tamil Nadu Physical Education and Sports University, Chennai 600 127
[2]Principal, Selvam College of Physical Education, Namakkal – 637 003.

ABSTRACT

The purpose of the present study was to find out the effect of defense and offense skill training on selected motor fitness variables among interschool boys volleyball players. To achieve the purpose of the study, interschool boys volleyball players were selected from Vani Vidyalayam School, K.K. Nagar, Chennai. The subject's age between 15 to 17 years. The selected subjects were divided into three equal groups consisting of twenty volleyball players each, namely experimental group I, experimental group II, and control group. The experimental group I underwent a defense skill training program for twelve weeks. The Experimental Group II underwent an offense skill training program for twelve weeks. The control group was not participating in any training during the study. Agility, explosive power, and speed were taken as criteria variables in this study. The pre-test and post-test scores were subjected to statistical analysis of covariance (ANCOVA) to find out the significance of the mean differences. Scheffe's post hoc analysis was used whenever the F-ratio was found to be significant for the adjusted test. In all cases, a significance level of 0.05 was adopted to test the hypotheses. The result showed that significant differences were found on the criterion variables. The difference is found due to defense and offense skill training given to the experimental group on agility, explosive power, and speed when compared to the control group.

Keywords: Defense and offense skill training, Motor Fitness Variables, Volleyball Players.

INTRODUCTION

Based on scientific knowledge, sports training is a pedagogical process aimed at achieving sports excellence. It seeks to guide athletes to their maximum potential through systematic impacts on their psycho-physical capabilities and readiness for performance. In volleyball, two teams, typically comprising six players each, use their hands to hit the ball back and forth over a high net, aiming to land it in the opponent's court. A player on the opposing team attempts to prevent the ball from hitting the ground by batting it upwards to a teammate, who can then either volley it back over the net or pass it to another teammate for better positioning. In order to avoid this, an opponent's player will bounce the ball up and toward a teammate before it hits the court. That player can then either toss the ball back over the net or pass it to a third teammate, who can also toss it over. Throws across. A team is allowed to touch the ball only three times before returning it to the net. The study has been carried out to study the effect of defense and offense skill training on selected motor fitness Variable of Volleyball Players. **Harre**

(1977). The study has been carried out to study the effect of defense and offense skill training on selected motor fitness Variable of Volleyball Players

AGILITY

The standardized test for 10x5 metre shuttle run test may be a good predictor of aerobic performance in pre-pubertal children. **Christina Christiansen (2010)**

LEG EXPLOSIVE POWER

The standardized test for Vertical jump this test can be performed with or without additional weights, and can use equipment like opto Jump to measure data. Explosive power was the ability to unleash more muscle power in a shorter period of time than in a vertical broad jump. **Baumgartner and Jackson (1982)**.

SPEED

Standardized testing Sprint or speed tests may be performed at varying distances depending on the factors being tested and the relevance of the sport. The 50-meter dash is part of the International Fitness Test, and their protocol is listed here. **Robert Wood, (2010).**

SELECTION OF SUBJECTS

The purpose of the study was to find out the effect of defense and offense skill training on selected motor fitness variables among inter school boys volleyball players. To achieve the purpose of the study volleyball players were selected from vani vidyalayam School, k.k.Nagar, Chennai.

SELECTION OF VARIABLE

INDEPENDENT VARIABLE

- Defense Skill Training
- Offense skill Training

DEPENDENT VARIABLES

- Agility
- Explosive power
- Speed

EXPERIMENTAL DESIGN AND IMPLEMENTATION

The selected subjects were divided into three equal groups, each composed of twenty volleyball players, experimental group I, experimental group II and control group.The experimental group I underwent a defense skill training programme for twelve weeks. The experimental group II underwent a offense skill training programme for twelve weeks. The control group did not participate in any training during the study. agility, leg explosive power and speed was taken as criterion variable in this study. The pre-test was taken before the training period and the post-test was measured immediately after the twelve-week training period.

STATEMENT OF THE PROBLEM

The purpose of the study was to assess combined of defense and offense skill training on selected motor

fitness variables among inter school boys volleyball players.

HYPOTHESES

- It was hypothesized that there would be a significant improvement on defense skill training among inter school boys volleyball players.
- It was hypothesized that there would be a significant improvement on offense skill training among inter school boys volleyball players.
- It was hypothesized that there would be a better significant improvement on defense and offense skill training on selected motor fitness variables among Inter school boys volleyball players.

STATISTICAL TECHNIQUE

The ANCOVA test was used to analysis the significant differences, if any, difference between the groups respectively.

LEVEL OF SIGNIFICANCE

The proper significance level was determined by fixing the confidence level at 0.05.

ANALYSIS OF THE DATA

Using a pre-test, it was possible to determine the significance of the difference between the means of the experimental group. The obtained data were subjected to statistical treatment using ANCOVA test. In all cases 0.05 levels was fixed to test the hypothesis of this study.

RESULTS

Table 1 Analysis of Covariance for pre, post and adjusted post test performance of experimental gr I, experimental gr II and control group on Agility

Test	Exp gr I	Exp gr II	Control gr	Sv	Ss	Df	MS	F	TF
Pre test	21.607	19.45	21.47	Between within	58.3455 60.5326	2 57	29.1727 1.06198	27.4702	3.22
Post test	20.315	20.4425	19.805	Between within	4.55175 52.805	2 57	2.27587 0.9264	2.45668	3.22
Adjusted	19.77	21.43	19.36	Between within	25.845 22.366	2 56	12.9227 0.39939	32.3558	3.23
Mean gain	1.292	-0.9925	1.665						

Scheffe's post hoc test for Agility

Exp.GP I	Exp.GP II	Control GP	MD	CI
19.77	21.43	-	-1.66	0.51
19.77	-	19.36	0.41	0.51
	21.43	19.36	2.07	0.51

* Significant at 0.05 level of confidence

The result of the study indicated that there was a significant difference between the adjusted post test mean of the experimental group I defense skill training, experimental group II offense skill training and the control group at 0.05 levels. The pre, post and adjusted post test mean values of the experimental group 1, experimental group 2 and the control group on experimental group is graphically represented in the figure 1.

Figure – 1 Bar diagram showing the pre and post test and adjusted post test performance of defense skill training, offense skill training and control group on agility

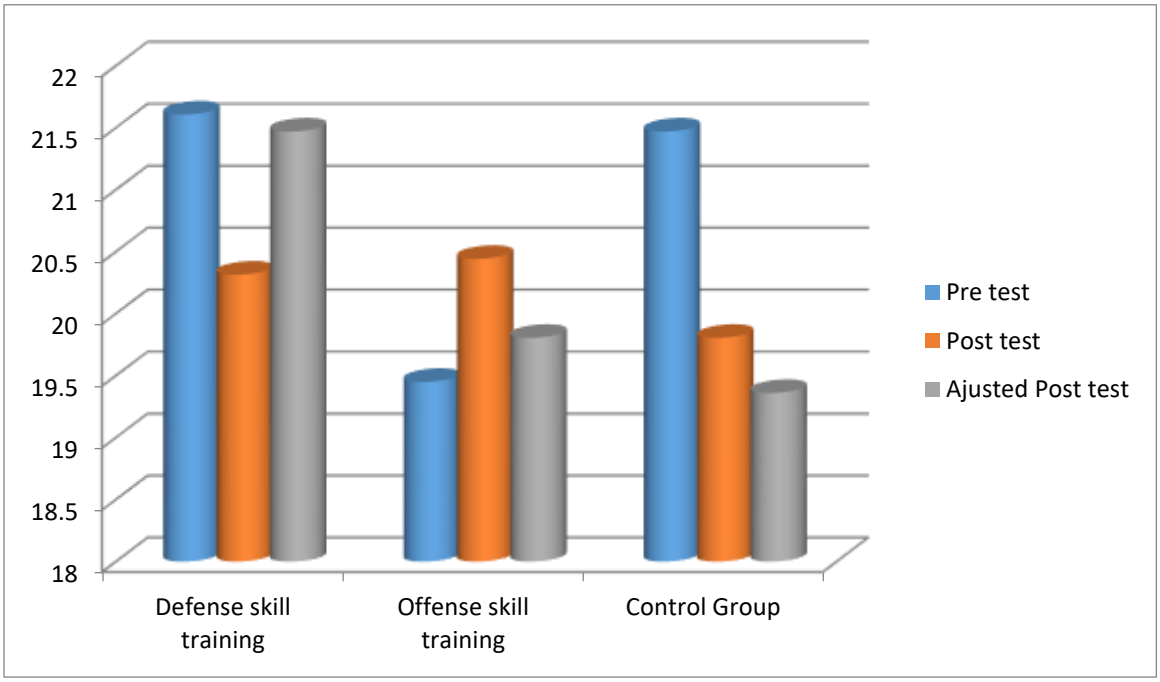


Table 2 Analysis of Covariance for pre, post and adjusted post test performance of experimental gr 1, experimental gr 2 and control group on leg explosive power

Test	Exp gr 1	Exp gr 2	Control gr	Sv	Ss	Df	MS	F	TF
Pre test	166.75	159.85	166.8	Between within	639.433 1741.5	2 57	319.717 30.5526	10.4645	3.22
Post test	172.1	158.45	172.2	Between within	2502.63 1283.95	2 57	1251.32 22.5254	55.5513	3.22
Adjusted	170.23	162.24	170.29	Between within	627.158 111.948	2 56	313.579 1.99908	156.862	3.23
Mean gain	-5.35	1.4	-5.4						

Scheffe's post hoc test for Agility

Exp.GP 1	Exp.GP 2	Control GP	MD	CI
170.23	162.24	-	7.99	1.14
170.23	-	170.29	-0.06	1.14

	162.24	170.29	-8.05	1.14

* Significant at 0.05 level of confidence

The result of the study indicated that there was a significant difference between the adjusted post test mean of the experimental group I defense skill training, experimental group II offense skill training and the control group at 0.05 levels. The pre, post and adjusted post test mean values of the experimental group 1, experimental group 2 and the control group on experimental group is graphically represented in the figure 2.

Figure – 2 Bar Diagram showing the pre and post test and adjusted post test performance of defense skill training, offense skill training and control group on leg explosive power.

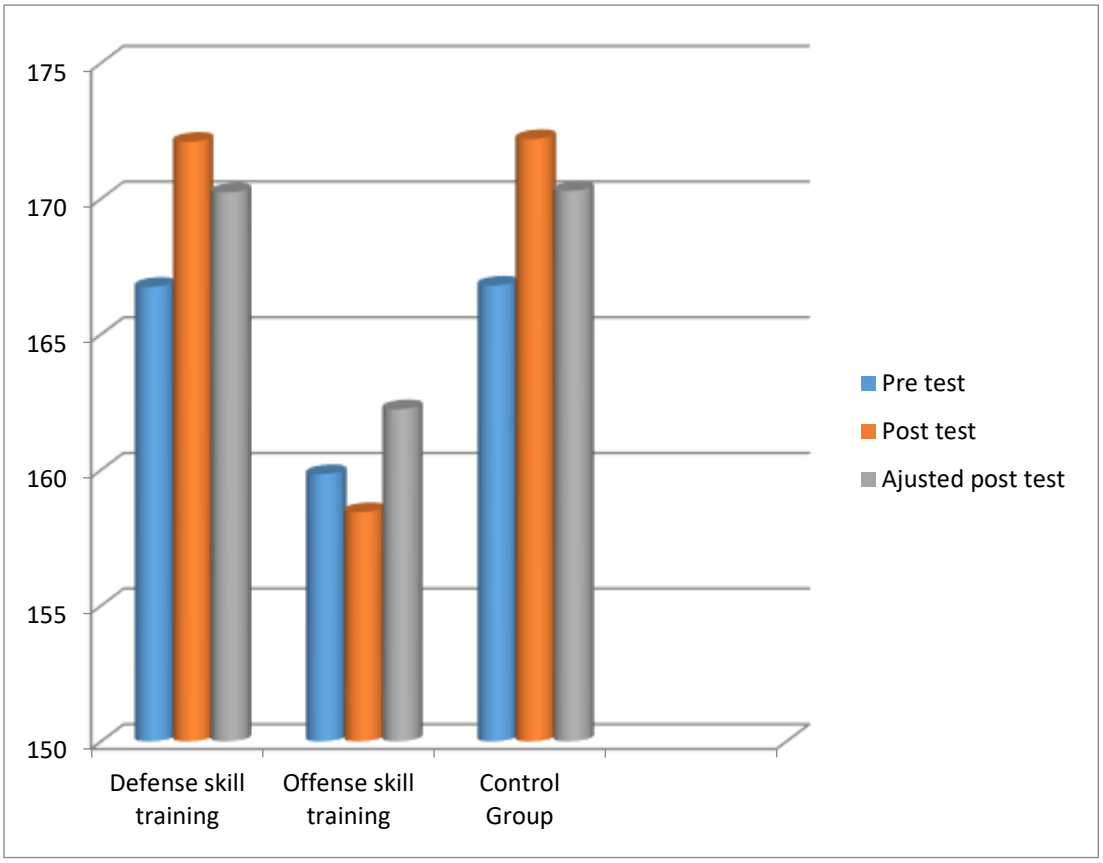


Table 3 Bar Diagram showing the pre and post test and adjusted post test performance of defense skill training, offense skill training and control group on leg explosive power.

Test	Exp gr 1	Exp gr 2	Control gr	Sv	Ss	Df	MS	F	TF
Pre test	9.991	11.0905	10.042	Between within	15.4057 14.554	2 57	7.70284 0.25533	30.1678	3.22
Post test	9.451	10.6885	9.4745	Between within	20.0384 7.04893	2 57	10.0192 0.12367	81.0184	3.22
Adjusted	9.67	10.28	9.66	Between within	2.428 2.287	2 56	1.21377 0.04083	29.7243	3.23
Mean	0.54	0.402	0.5675						

gain									

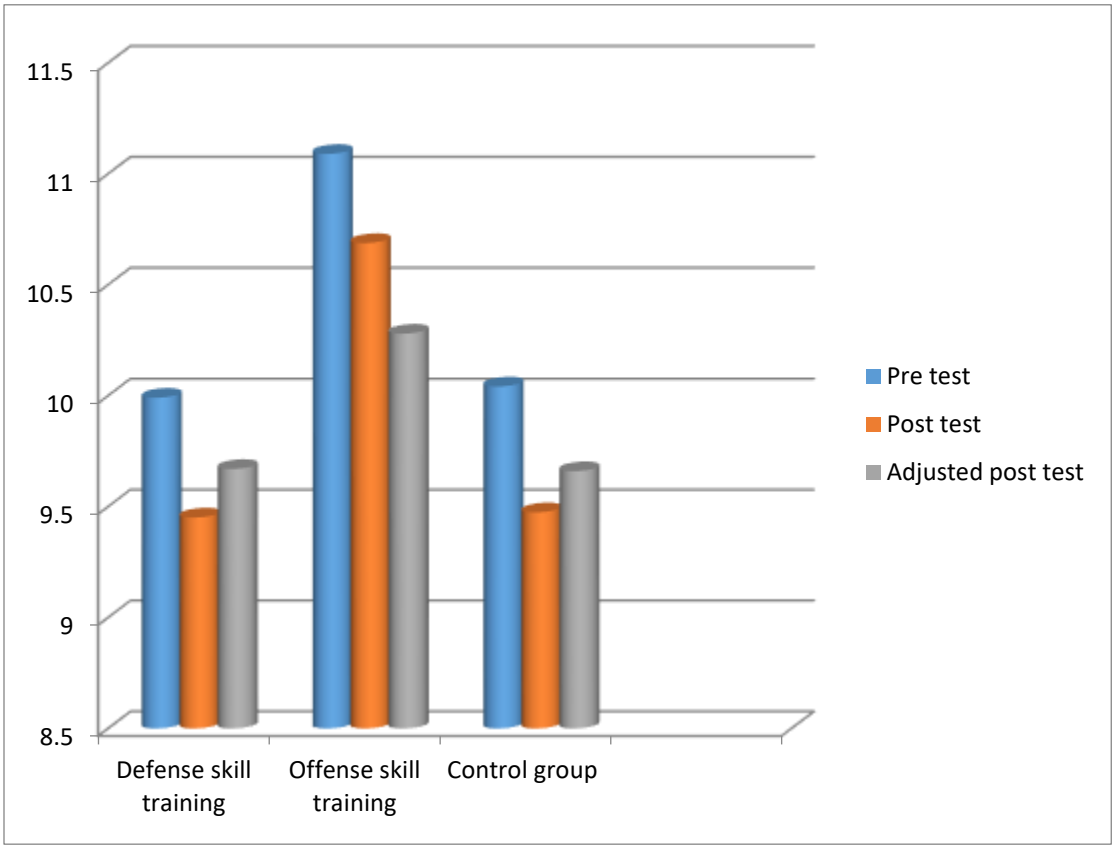
scheffe's post hoc test for Speed

Exp.GP 1	Exp.GP 2	Control GP	MD	CI
9.67	10.28	-	-0.61	0.16
9.67	-	9.66	0.01	0.16
	10.28	9.66	0.61	0.16

* Significant at 0.05 level of confidence

The result of the study indicated that there was a significant difference between the adjusted post-test mean of the experimental group I defense skill training, experimental group II offense skill training, and control group at 0.05 levels. The pre, post, and adjusted post test mean values of the experimental group 1, experimental group 2, and the control group in the experimental group are graphically represented in figure 3.

Figure –3 Bar diagram showing the pre and post test and adjusted post test performance of defense skill training, offense skill training and control group on speed.



DISCUSSION ON FINDINGS

The results of the study indicated that the selected motor fitness variables, such as agility, leg explosive power, and speed, were improved significantly after undergoing defense and offense skill training. The players' training package was properly planned, prepared, and carried out, which resulted in changes to the chosen parameters. The findings of the present study had similarity with the findings of **Jenith (2021) and Ooraniyan (2021).** The results of the present study indicate that the defense and offense

skill training methods are appropriate protocols to improve agility, leg explosive power, and speed of interschool boys volleyball players. The result of the present study is very clear: the selected motor fitness variables, such as agility, leg explosive power, and speed improvement, significantly increased due to defense and offense skill volleyball training.

CONCLUSIONS

Based on the findings and within the limitation of the study

1. It was noticed that practice of defense and offense skill training helped to improve selected motor fitness variables of inter school boys volleyball players.
2. It was also observed that there was progressive improvement in selected criterion variables of an experimental group of interschool boys volleyball players after twelve weeks of a specific volleyball training program. In addition, it also helps in improving selected motor fitness variables such as agility, leg explosive power and speed.

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