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## Impact of game specific drills program on spiking ability and shoulder strength among male volleyball players

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### Abstract

This study was find about effectiveness of game specific drills program on spiking ability and shoulder strength among male volleyball players. To achieve the purpose of the study, Only thirty male volleyball players from Meenatchi Physical education college, Thathanur, Ariyalur, Tamil Nadu, and their aged between 17 and 25 years were selected as subjects. The selected thirty subjects were randomly divided into two equal groups of fifteen subjects each, out of which group – I (n = 15) underwent specific drills programme for volleyball game and group – II remained as control. The training period for the present study was five days per week for twelve weeks. Prior to and after the training period the subjects were tested for spiking ability and shoulder strength. Spiking ability was measured by wall spike test and shoulder strength measured by medicine ball throw. The statistical tool were used for the present study is Analysis of covariance (ANCOVA). The result of the study was a significant improvement on spiking ability and shoulder strength after twelve weeks of specific drills programme. However the improvement was favour of experimental groups. There was a significant difference was occurred between specific drills group and control group after twelve weeks of specific drills programme.

**Keywords:** specific drills programme, volleyball, spiking ability and shoulder strength

### Introduction

The term sports – specific is a different nuance, because due to the commercialization of strength and conditioning industry and it is touted is being able to imitate a particular skill or particular person's sport or activity in the respective game atmosphere (Fornicola, 2019) [2]. These days the studies related with the effectiveness of sports based specific training are limited and many of them suggested only advantages and disadvantages on subjective evidence (Gabbett, Jenkins and Abernety, 2009) [3]. It is designed and executed a strength and conditioning based on metabolic or physiological demands, movements and common injuries or stresses of a particular sport.

Volleyball is a complex game of simple rules, invented by William G. Morgan in the year 1896, and got recognized as an Olympic sport during the year 1964. Drastic changes in game pattern, modification of rules governing the game, and the evolution of sport training methods enhanced the popularity of the game all over the world.

### Statement of the problem

The purpose of present study was to find out the effect of game specific drills program on spiking ability and shoulder strength among male volleyball players.

### Methodology

To achieve the purpose of the study, only thirty male volleyball players from Meenatchi Physical Education College, Thathanur, Ariyalur, Tamil Nadu, and their aged between 17 and 25 years were selected as subjects. The selected thirty subjects were randomly divided into two equal groups of fifteen subjects each, out of which group – I (n = 15) underwent specific drills programme for volleyball game and group – II remained as control. The training period for the present study was five days per week for twelve weeks. Prior to and after the training period the subjects were tested for spiking ability and shoulder strength.

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Spiking ability was measured by wall spike test and shoulder strength measured by medicine ball throw.

in spiking ability and shoulder strength on specific drills group and control group were analyzed and presented in the following table –I

### Analysis of data

The data collected prior to and after the experimental periods

**Table 1:** Analysis of covariance of specific drills groups and control groups

Variable Name	Group Name	Specific drills Group	Control Group	F ratio
Spiking Ability	Pre-test Mean $\pm$ S.D	12.621 $\pm$ 0.8208	12.613 $\pm$ 0.7367	0.410
	Post-test Mean $\pm$ S.D.	15.733 $\pm$ 0.8213	12.618 $\pm$ 0.7736	67.524*
	Adj.Post-test Mean $\pm$ S.D.	14.633	12.615	66.428*
Shoulder strength	Pre-test Mean $\pm$ S.D	16.388 $\pm$ 0.9041	16.304 $\pm$ 0.6734	0.072
	Post-test Mean $\pm$ S.D.	18.125 $\pm$ 0.9342	16.346 $\pm$ 0.8421	20.682*
	Adj.Post-test Mean $\pm$ S.D.	17.685	16.342	70.563*

Significant at 0.05 level of significance.

The table value required for significance at 0.05 level of significance with df 1 and 28 and 1 and 27 were 4.196 and 4.210 respectively.

### Results

From the Table-I it is clear that specific drills practices increases spiking ability and shoulder strength when compare with control group.

1. The research study also shows that game specific drills group have improved in spiking ability. Agopyan *et al.* (2018) <sup>[1]</sup> have evaluated Thera-Band training method improving spiking ability of volleyball players. Oliveira *et al.* (2020) <sup>[4]</sup> and Gabbett, *et al.*, (2008) <sup>[3]</sup> found that significant improvement on spiking ability after skill based training.
2. It was found from the effects of the training that shoulder strength had enhanced for the game specific drills group when compared with the control group. Marques Mc, *et al.*, (2002) has discovered that shoulder strength improved after the plyometric training. Kumar, *et al.* (2019) found that significant improvement on shoulder strength after skill based training.

### Conclusions

From the analysis of the data, the following conclusions were drawn.

1. There was a significant difference between specific drills group and control group on spiking ability and shoulder strength when compared with the control group.
2. The improvement in criterion variable such as spiking ability and shoulder strength was higher for the specific drills group than control group.

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