

Effect of extensive training methods on five components of physical fitness of volleyball players

SAMEY SINGH

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Correspondence to:

SAMEY SINGH

Teerthankar Mahaveer College
of Physical Education
(TMU), MORADABAD
(U.P.) INDIA

ABSTRACT

An analysis was made on the effect of extensive training method on five selected component of physical fitness variables among the football players at district level. It was conducted on 12x4=48 women volleyball players, involving the talents of all over the district. After the physical fitness tests, the subjects were examined by use of standard test items. The obtained data on district level of women volleyball players had no significant differences between the district players on selected component of the physical fitness.

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Key words : Speed, Muscular endurance, Strength, Flexibility

It has been observed and reported by so many researchers that following the regular physical activity / exercise improves the health of common men or women but appropriate regular training method fulfils the demanded health and level of physical fitness of the volleyball players of any country. The regular physical activities increase all the component of physical fitness such as speed, muscular endurance, muscular strength endurance, strength and flexibility and have considerably improvement not only in their physical growth but also harmonious development or four side developments *i.e.* physical, mental or emotional, social and spiritual development.

World Health Organisation defined health as a state of physical, mental and social well being not merely the absence of disease. It means men should be physically fit, mentally alert, socially sound and well adjusted, emotionally balanced and spiritually enriched and not merely free from diseases.

According to Budgetchell, "Physical fitness is a capacity of a heart blood vessels, lungs and muscles to function at optional efficiency."

Therefore training is essential for the development of physical fitness and its components. Training method and used means as in the form of physical activity or exercise are the sole source of development of the component of physical fitness. It is also known as the means and method of acquiring the ability to engage in tasks demanding sustained physical efforts. There is a direct relationship between systematic physical fitness and performance.

The purpose of the present study was to compare the effect of extensive training method on the performance of women volleyball players on the selected variables of physical fitness among the district volleyball players. This study may be as an important and essential aid to the coaches and physical educationists to know the strong and weak points of the trainee, the grading for removing their shortcomings through extensive training.

METHODOLOGY

Sample:

To achieve the objective 48 women volleyball players were selected, 12 each from various districts that were selected for their district volleyball team and imparted eight week above stated training to them through trained expert in respective stadium during the year 2008-9. Physical fitness variables and test items were for Speed-40M run, for Muscular strength 30 seconds push-ups test, for Muscular strength endurance-two minutes sit-ups test, for strength-cricket ball throw and for flexibility on trunk joint- forward reach.

OBSERVATIONS AND DISCUSSION

Table 1 shows that the mean values of Muzaffarnagar, Saharanpur, Meerut and Hardwar district of volleyball players on speed clocking time test scores were 7.46 ± 0.28 , 7.52 ± 0.25 , 7.38 ± 0.24 and 7.43 ± 0.26 , respectively. The obtained f-ratio value of 0.152 was less than required table value 2.81 for significance at 0.05 levels with df 3 and 44. The value of these districts have also been represented with Fig. 1.

Table 1: Analysis of variance on speed among district volleyball women players

District team of volleyball	Mean	S.D.	Sources of variance	Sum of square	df	Mean square	Obtained F-ratio
Muzffarnagar	7.46	0.28	Between	0.111	3	0.0037	0.152
Saharanpur	7.52	0.25					
Meerut	7.38	0.24					
Hardwar	7.43	0.26	Within	3.169	44	0.0072	

(The table value required for significant at 0.05 level of significance with df 3 and 44 was 2.81)

Table 2 indicates that the mean values of Muzaffarnagar, Saharanpur, Meerut and Hardwar districts volleyball players on 30 seconds push-up test score for strength endurance (shoulder’s muscles) of district volleyball women players were 25.05 ± 1.24 , 24.68 ± 0.93 , 24.45 ± 0.97 and 24.78 ± 1.47 , respectively. The obtained f-ratio value of 0.572 was less than required table value 2.81 for significance at 0.05 levels with df 3 and 44. The value of these district have also been represented with

Fig. 2.

Table 3 shows that the mean values of Muzaffarnagar, Saharanpur, Meerut and Hardwar district volleyball players on muscular endurance one minutes sit-ups test score were 46.83 ± 3.15 , 47.31 ± 1.92 , 48.75 ± 1.36 and 48.92 ± 2.02 , respectively. The obtained f-ratio value of 2.615 was less than required table value 2.81 for significance at 0.05 levels with df 3 and 44. The values of these districts have also been represented with Fig. 3.

Table 2: Analysis of variance on strength endurance (shoulder’s muscles) among district volleyball women players

District team of volleyball	Mean	S.D.	Sources of variance	Sum of square	df	Mean square	Obtained F-ratio
Muzffarnagar	25.05	1.24	Between	2.298	3	0.77	0.572
Saharanpur	24.68	0.93					
Meerut	24.45	0.97					
Hardwar	24.78	1.47	Within	58.90	44	1.34	

(The table value required for significant at 0.05 level of significance with df 3 and 44 was 2.81)

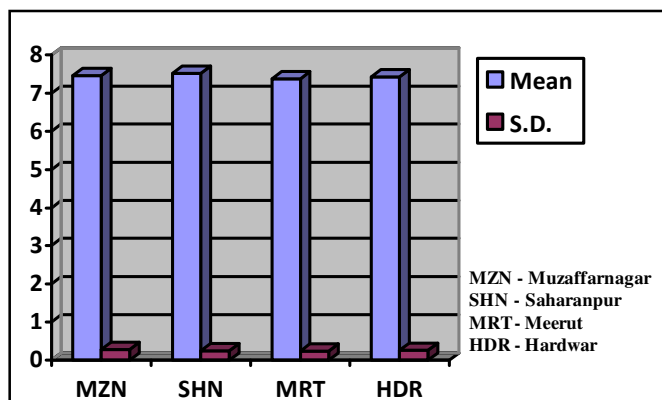


Fig. 1: Mean values of different districts women volleyball players on speed

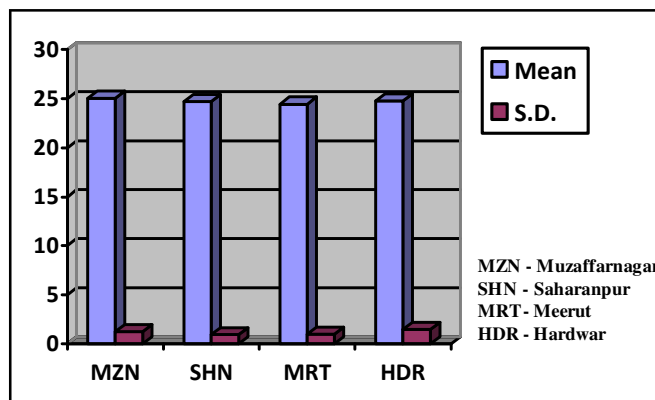


Fig. 2: Mean values of different districts women volleyball players on agility coordinative ability

Table 3 Analysis of variance on muscular endurance (abdominal muscles) among district volleyball women players

District team of volleyball	Mean	S.D.	Sources of variance	Sum of square	df	Mean square	Obtained F-ratio
Muzffarnagar	46.83	3.15	Between	38.42	3	12.81	2.615
Saharanpur	47.31	1.92					
Meerut	48.75	1.36					
Hardwar	48.92	2.02	Within	215.40	44	4.898	

(The table value required for significant at 0.05 level of significance with df 3 and 44 was 2.81)

Table 4: Analysis of variance on strength among district volleyball women players

District team of volleyball	Mean	S.D.	Sources of variance	Sum of square	df	Mean square	Obtained F-ratio
Muzffarnagar	71.62	3.16	Between	31.56	3	10.52	1.854
Saharanpur	70.54	2.14					
Meerut	76.02	3.08					
Hardwar	74.32	2.58	Within	249.67	44	5.674	

(The table value required for significant at 0.05 level of significance with df 3 and 44 was 2.81)

Table 5: Analysis of variance on flexibility among district volleyball women players

District team of volleyball	Mean	S.D.	Sources of variance	Sum of square	df	Mean square	Obtained F-ratio
Muzffarnagar	17.27	2.45	Between	25.63	3	8.542	1.574
Saharanpur	16.87	2.12					
Meerut	16.43	2.44					
Hardwar	17.07	2.36	Within	238.79	44	5.427	

(The table value required for significant at 0.05 level of significance with df 3 and 44 was 2.81)

Table 4 shows that the mean values of Muzaffarnagar, Saharanpur, Meerut and Hardwar districts volleyball players on strength cricket ball throw score were

71.62 ± 3.16 , 70.54 ± 2.14 , 76.02 ± 3.08 and 74.32 ± 2.58 , respectively. The obtained f-ratio value of 1.854 was less than required table value 2.81 for significance at 0.05 levels with df 3 and 44. The values of these districts have also been represented with Fig. 4.

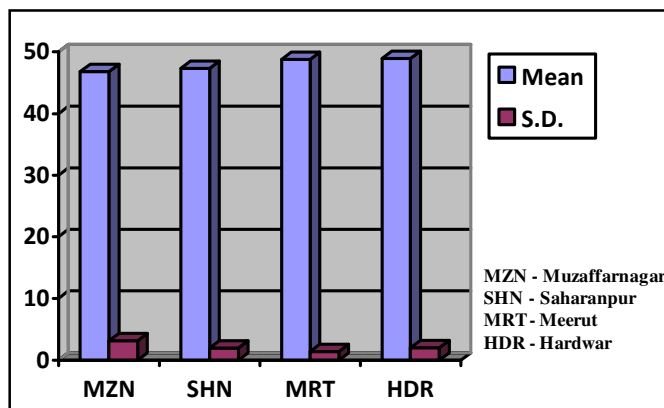
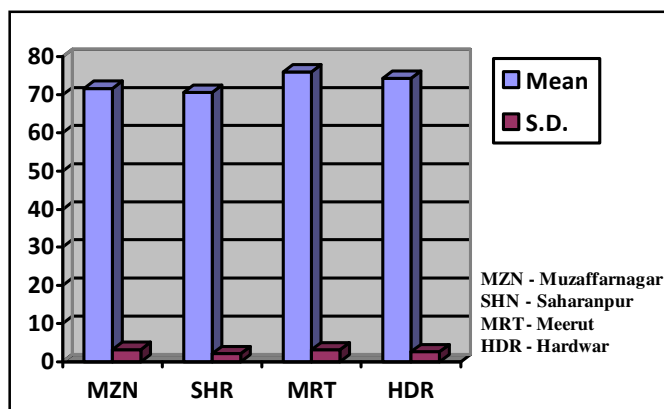
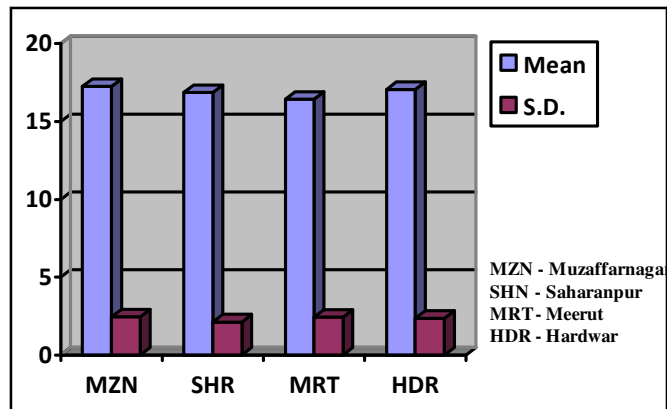
**Fig. 3: Mean values of different districts women volleyball players on muscular endurance**

Table 5 indicates that the mean values of Muzaffarnagar, Saharanpur, Meerut and Hardwar districts volleyball players on trunk flexibility were 17.27 ± 2.45 , 16.87 ± 2.14 , 16.43 ± 2.44 and 17.07 ± 2.36 , respectively. The obtained f-ratio value of 1.574 was less than required table value 2.81 for significance at 0.05 levels with df 3 and 44. The results of the study showed that there were no significant differences that exist among the district. The results have also been represented with Fig. 5 for clarity and convenience.

The obtained data on district women volleyball players have no significant differences between the

**Fig. 4: Mean values of different districts women volleyball players on strength****Fig. 5: Mean values of different districts women volleyball players on flexibility**

selected variable of physical fitness and its components such as Speed, Muscular endurance, Muscular strength Endurance, Strength and flexibility of Muzaffarnagar, Saharanpur, Meerut and Hardwar district level of volleyball players.

It was hypothesized that there would not be any significant difference on selected criterion variables between Muzaffarnagar, Saharanpur, Meerut and Hardwar district level of women volleyball players. The results also revealed that there were no significant difference on selected criterion variables between Muzaffarnagar, Saharanpur, Meerut and Hardwar district level of women volleyball players.

Conclusion:

It was concluded that there were no significant difference between Muzaffarnagar, Saharanpur, Meerut and Hardwar district volleyball players on selected five

variable of physical fitness as its component such as Speed, Muscular endurance, Muscular strength endurance, Strength and flexibility.

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