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Research Article

Assessment of specific motor fitness status of female volleyball players in relation to their competition performance

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■ **ABSTRACT**

Attempt has been made to assess of specific motor fitness status of female volleyball players in relation to their competition performance. As many as 120 female volleyball players of at least inter college level were randomly drawn from various colleges affiliated to Panjab university to act as subjects for the study. To select the specific motor fitness variables, battery developed by Kulwinder Kaur Sandhu (1989) having seven motor fitness components were used for the assessment of 120 player's specific motor fitness level. To assess competition performance, the criterion for the admission into various classes of physical education at Panjab University, was used for the study. After tabulated the data, the results revealed that volleyball group with high profile competition performance were found superior in all the seven specific fitness variables than their counterpart that is with low competition performance profile. The specific fitness variable, mean scores of high profile group were found higher than the means scores of low profile group.

■ ***Key Words*** **:** Competition performance, Female volleyball players, Motor fitness status

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The purpose of the present study was to asses the specific motor fitness status of female volleyball players in relation to their competition performance. The subjects were non -residential students related with Panjab university colleges and they had different living conditions, diet, rest and working schedule. The study will help the physical education teachers, coaches and even volleyball players to designing specific fitness programme for the conditioning of high and low level of volleyball players. It was hypothesized that there is positive relationship between specific motor fitness variables and competition performance.

■ METHODOLOGY

The study was a cooperative study, conducted on 120 female volleyball players of at least inter college level who randomly drawn from the various colleges affiliated to the Punjab University, Chandigarh. The age of the students varied between 18 to 25 years. To select the specific motor fitness variables, the battery developed by Kulwinder Kaur Sandhu (1989) having seven specific motor fitness components (speed acc, muscular power, muscular endurance, agility, endurance, flexibility and movement speed) were used for the assessment of 120 players specific motor fitness. To assess competition performance the criteria for the admission into various classes of physical education at Panjab University, this was used for the study.

■ OBSERVATIONS AND DISCUSSION

Within the limitation and delimitation of the study following results are drawn:

The result presented in Table points out that there have been significant difference between volleyball players divided into two groups having high and low competition performance in their all specific fitness variables. The derivate "t" values in all the seven specific fitness variables were found higher than the tabulated value of 2.02 which is require to be significant at

Table 1 : Mean difference between high and low competition performance of volleyball players in their specific fitness

Sr. No.	Variables	X_1 H σ_1 (n=17)	X_2 L σ_2 (n = 22)	M.D.	S.E.D.M	t
1.	W.M.agility	70.17 27.35	40.00 18.11	30.17	04.39	6.87*
2.	Spike jump	80.58 16.56	46.22 18.56	34.36	05.63	6.10*
3.	Stick test	73.82 21.90	41.09 20.69	32.73	06.90	4.74*
4.	20m run	74.58 29.84	40.36 30.63	34.22	09.74	3.51*
5.	W.M. run	71.17 25.01	44.36 21.00	26.81	07.54	3.56*
6.	Bend and reach	69.64 24.67	37.27 24.62	32.37	07.95	4.07*
7.	Push -ups	69.70 23.97	43.40 22.63	26.30	07.55	3.48*
8.	T.O.S.F.V.	525.88 127.00	256.50 121.72	269.38	40.21	6.69*

*indicate significance of value at p=0.05, respectively t>2.02(df=37)

T.O.S.F.V = Total of specific fitness variables
M.D. = Mean difference t = t Value
S.E.D.M. = Standard error in difference of mean
H = High performance players
X_1 σ_1 = Mean and standard deviation of high performance players
L = Low performance players
X_2 σ_2 = Mean and standard deviation of low performance players
N = Number of players

Table 2 : Correlation of competition performance scores with specific motor fitness variable scores

Sr. No.	C.P.S. (n =120)	S.M.F.V.S.	Correlation (r)
1.	C.P.S.	W.M. agility scores	0.52*
2.	C.P.S.	Spike jump scores	0.62*
3.	C.P.S.	Stick test score	0.60*
4.	C.P.S.	20 mts run score	0.45*
5.	C.P.S.	W.M. run scores	0.54*
6.	C.P.S.	Bend and reach score	0.53*
7.	C.P.S.	Push up scores	0.58*
8.	C.P.S.	T.O.S.F.V.S.	0.63*

* indicate significance of value at p=0.05, respectively r>0.179 (df=118)

T.O.S.F.V.S. = Total of specific fitness variable scores
C.P.S = Competition performance score
S.M.F.V.S. = Specific motor fitness variable scores
N = Number of players
r = Correlation

0.05 level.

The results revealed that volleyball group with high profile competition performance were found superior in all the seven specific fitness variables than their counterpart that is with low competition performance profile. As in the specific fitness variable mean scores of high profile group were found higher than the means scores of low profile group.

Table 2 points out that there has been a high positive relationship between competition score and specific fitness variables. The 'r' values 0.179 which is required to be significant at 0.05 level was found less then the tabulated values.

Conclusion :

The results of Tables 1 and 2 disclosed that the players who had high competition performance scores were found better in all the seven (W.M. agility, W.M. Run, Push- ups, Bend and Reach, Spike jump, Stick test and 20 mts Run) specific fitness variables scores.

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