Relationship of Motor Fitness Components with Service Ability of Volleyball Players of Valsad District

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Abstract :
The purpose of the study was to find out the relationship of motor fitness components with Service Ability of volleyball players. For the present study the selection of the sampling was based on Veer Narmad South Gujarat University, Surat Volleyball inter college tournament. Here for this said tournament participating colleges were divided into four zones, Surat city, Surat Rural, Bharuch and Valsad district respectively. Out of these zones the four semi-finalists team of each zone means sixteen best teams, four from each zone having 192 male best players based on their performance, select total 180 subjects out of 192 for the present study. The subjects selected was in the age range of 17 - 25 years. After being informed of the study's requirements, each participant willingly consented to participate in the testing program. The research scholar met and had a special conversation to orient the subjects on the research study. A detailed explanation of the testing, experimental process, and exercise schedules was provided so that the subjects would know exactly what to expect and how much effort would be required of them. The standard of measurement in this research study was measuring Speed - 50 Yard Desh test, Agility-4 X 10 m shuttle run, Flexibility- Seat and Reach, Explosive power- Sargent jump, Cardio – vascular endurance through the Cooper's 12 minutes ran/walk. In order to investigate the motor fitness components and skill performance of volleyball players, descriptive analysis statistics; such as mean, standard deviation, minimum value, maximum value was applied. The relationship of motor fitness components and skill performance of volleyball players, was established by computing Karl Pearson's Product Moment Co-relation was used. The combined contribution of separately considered motor fitness components to skill performance was obtained through multiple correlations. Further in order to find out which aspect has the maximum impact on the skill performance score of volleyball players, multiple regression analysis was applied. For testing the hypothesis, the levels of confidence were set at $p<0.05$. The Conclusion are as under The explosive power significantly negative correlation with the service ability. The positive but not statistically significant correlation between speed, flexibility and agility. And the cardio-vascular endurance negative not statistically significant correlation with the service ability.

Introduction :
The American Alliance for Health, Motor Education and Recreation highlights the need for customized training with the goal of helping learners discover their own level of motor fitness. Every person has to be in good motor function in order to carry out their daily tasks and engage in a variety of activities.
The neuromuscular aspects of fitness that allow an individual to excel in a given game, activity, or motor skill. A few examples of specific motor fitness components are power, agility, balance, coordination, speed, and reaction time. Skill-related fitness is another name for motor fitness. Also see physical well-being.
Variables related to fitness aid in improving abilities at the peak of athletic performance. Based on the assertion that the researcher was enthusiastic about and engaged in the investigation of the connection between motor fitness and skill performance, the technical and motor skills of the engine are consistent.
Power, agility, speed, and balance are among the elements that make up motor fitness, which is defined as the ability to accomplish basic tasks like running, leaping, dodging, falling, climbing, and swimming with prolonged effort in a range of situations. "Motor fitness is the final criterion through which all other elements of physical fitness or total fitness are seen and measured in man" (Book in 1952). Components of Physical Fitness
Physical components: the most valuable asset is physical fitness, which is acquired via regular exercise and cannot be purchased
The contemporary era has produced competition. It's a challenge that pushes, encourages, and inspires the person to run faster, jump higher, throw farther, and generally aim to outperform himself in addition to demonstrating increased strength, stamina, and skill to dominate others. Due to a significant shift in the attitude around game and sport participation, contestants in today's sports place a higher value on winning (Melville & de Mellow, 1974).
The elements of health-related fitness serve as a benchmark for gauging our overall wellbeing. Enhancing our abilities in each of these domains is the aim of this activity. While some sports will require more physical preparation than others, athletes generally aim to reach a reasonable level of fitness for overall health in each domain. A balanced goal should be

to reach a balanced level of performance on each of these fitness components, unless you concentrate on fine-tuning your body's performance for an exceptionally demanding sport. Activities and exercises that support each of these health-related fitness components should be a part of your fitness regimen.
We are conducting a survey to determine which aspect of fitness is most critical to volleyball performance. The factors that readers of this site deem most important are power, agility, speed, flexibility, balance and coordination, and cardiovascular endurance, among the other options that include body size and composition, muscle strength, muscular endurance, power, speed / quickness, agility, and balance / coordination. You can view the most recent results and add your vote.
We asked respondents to a similar survey to rank the 12 sports success elements. Each of these elements has been ranked by site visitors for the sport of indoor volleyball, and they have determined that skill, balance/coordination, agility, reaction time, and speed/quickness are the most crucial. Along with seeing the most recent outcomes, you can also rate What Qualifies Successful Indoor Volleyball Players.

The Purpose of the Study :
The purpose of the study was to find out the relationship of motor fitness components with Service Ability of volleyball players valsad district.

Selection of Subjects :
For the present study the selection of the sampling was based on Veer Narmad South Gujarat University, Surat Volleyball intercollege tournament. Here for this said tournament participating colleges were divided into four zones, Surat city, Surat Rural, Bharuch and Valsad district respectively. Out of these zones the four semi-finalists team of each zone means sixteen best teams, four from each zone having 192 male best players based on their performance, select total 180 subjects out of 192 for the present study. The subjects selected was in the age range of 17 -25 years.
After being informed of the study's requirements, each participant willingly consented to participate in the testing program. The research scholar met and had a special conversation to orient the subjects on the research study. A detailed explanation of the testing, experimental process, and exercise schedules was provided so that the subjects would know exactly what to expect and how much effort would be required of them.

Criterion of Measurement

Sr. No.	Motor Fitness Components	Methods	Unit/Measures
1.	Speed	50 Yards Dash	Second 1/100
2.	Agility	4 X 10 m shuttle run	Second 1/100
3.	Flexibility	Seat and Reach	Centimetres
4.	Explosive power	Sargent jump	Centimetres
5.	Cardio – vascular endurance	Cooper's 12 minutes ran/walk	Distance Covered

Statistical Procedure :
1. In order to investigate the motor fitness components and skill performance of volleyball players, descriptive analysis statistics; such as mean, standard deviation, minimum value, maximum value was applied.
2. The relationship of motor fitness components and skill performance of volleyball players, was established by computing Karl Pearson's Product Moment Co-relation was used.
3. The combined contribution of separately considered motor fitness components to skill performance was obtained through multiple correlations.
4. Further in order to find out which aspect has the maximum impact on the skill performance score of volleyball players, multiple regression analysis was applied.
5. For testing the hypothesis, the levels of confidence were set at $p<0.05$.

Result of the Study :

Table – 1.1 Relationship of Motor Fitness Components with Service Ability of Volleyball Players

Sr. No	Motor Fitness Components	Volleyball Skill	Correlation Co-efficient	Sig. (2-tailed)
1	Speed	Service Ability	0.013	0.86
2	Agility		-0.021	0.78
3	Flexibility		0.041	0.58
4	Explosive Power		-0.150*	0.04
5	Cardio-vascular Endurance		-0.034	0.64

*Statistical significant at 0.05 level

The correlation coefficient between the service ability and motor fitness components of the volleyball players was presents in table 1.1. The statistical findings demonstrated that the explosive power ($r = - 0.150$, $p<0.05$) significantly

negative correlation with the service ability. Regarding the other variables, there was a positive but not statistically significant correlation between speed (r = 0.013, p>0.05), flexibility (r = 0.041, p>0.05) and agility (r = -0.021, p>0.05), cardio-vascular endurance (r = -0.034, p>0.05) negative not statistically significant correlation with the service ability.
The multiple correlation method yields correlations between a service ability (dependent variable) and the combined effect of the motor fitness components (independent variable), which are weighted to give maximum correlation. This allowed researchers to ascertain the combined contributions of specific motor fitness components (speed, agility, flexibility, explosive power and cardiovascular endurance) to service ability of volleyball players.
Table 1.2 displays the multiple coefficients of correlation that were calculated between the independent and dependent variables.

Table – 1.2 Multiple Correlation between Volleyball Players' Service Ability and Motor Fitness Components

Dependent Variables	**Independent Variable**	**Multiple Coefficient of Correlation (r)**	**Multiple Correlation ANOVA F**	**Sig.**
Service Ability	Speed Agility Flexibility Explosive Power Cardio-vascular Endurance	0.028	1.023	0.40

*Statistical significant at 0.05 level

According to Table 1.2, it has been shown that the combined effect of motor fitness components on volleyball players' service ability is statistically not significant (r = 0.028; F = 1.023; p>0.05). Therefore, it can be concluded from the research above that the selected motor fitness components listed above when combined do not affect a player's ability to serve in volleyball.

Conclusion :

- The explosive power significantly negative correlation with the service ability.
- The positive but not statistically significant correlation between speed, flexibility and agility. And the cardio-vascular endurance negative not statistically significant correlation with the service ability.

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