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Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players

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Abstract
The purpose of the study was to know the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players. Methodology- In order to achieve the purpose of the study forty (40) inter-collegiate volleyball men players were selected as the subjects. During inter collegiate tournament of Visvesvaraya technological University from the data pertaining to the four selected physiological variables such as vital capacity was assessed with the help of dry spirometer, pulse rate, systolic blood pressure and diastolic blood pressure was assessed with the help of Omron automatic blood pressure monitor MX3. Volley ball playing ability was assessed through subjective rating, by three experts, during the intercollegiate tournament and the average was taken as criterion score. Statistical Analysis-the collected data was tested with coefficient of correlation statistical technique to test the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players. Results-The statistical analysis shows coefficient of correlation in the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players. Conclusion-The analysis of the study revealed that there was a significant Relationship of selected physiological variables such as diastolic blood pressure and there was no significant relationship between selected physiological variables such as vital capacity, pulse rate, and systolic blood pressure with volleyball playing ability among intercollegiate volleyball men players.

Keywords: volleyball, playing ability, physiological

1. Introduction

One of the goals of scientific research is to predict future events or results from present or past data. There are different types of prediction that we come across in our daily life, such as wealth- forecast, market-forecast, share market-forecast, election trends etcetera. These are based upon some known fact and so they are reliable prediction. Research in the field of sports and games had proved that the future performance of an individual or team could be predicted through the analysis of certain variables, which are found to be the basis for total performance. Among many factors the following variables such as anthropometrical, physical, physiological and skill performance that decide the playing ability of an individual are more important. Unlike many competitive team sports, volleyball doesn't feature any physical contact between opponents. Volleyball players remain on their own respective sides of the court with a tall net serving as a barrier between the two teams. This basic setup makes volleyball a unique game and influences the necessary traits required to be a good volleyball player.

The measurement of player's physiological characteristics has high lightened position specific attributes. The physiological efficiency of various organs is helpful in doing the activity with vigor and more enthusiasm. More and more training is helpful to be stronger physiological efficiency. The most important muscle that adapts to training is the heart. During exercise, it pumps blood containing oxygen, fluids and nutrients to the active muscles. Blood flow then drains the metabolic waste products away. The more blood pumped, the more oxygen is available to the exercising muscles. More and more the muscles train, they're better able to extract and use the oxygen to produce more work. The heart adapts to aerobic exercise over time so it can pump more blood per stroke.Physi ological efficiency of various organs plays a vital role in the performance Volleyball (Jeyaraj & Gopinathan, 2014).

The Sports Skill is a unit. When it combines with other units into a pattern along with certain rules, the result is a sport or athletic game. These motor patterns have their fundamental skills or racial skills such as running, walking, hanging etc. Efficient performance in these motor patterns depends on the underlying basic factors of movement such as strength, speed, power, agility, hand-eye-foot-eye-coordination, balance etc. When these fundamental skills are combined into various patterns and sequences along with the underlying basic elements, sports skills result. These are unique and specific for each game or physical activity.

Playing abilities or specific skills are very important aspect in every game and sports and play a vital role in the performance of individual. Skill is often defined as "knowledge or expertise, but in physical education it is the ability to perform certain activities or movements with control and consistency, to bring about a desired results." It takes a long time to acquire a skill because it involves a high level co-ordination and control. The game of volleyball comprises manifold of quick actions and re- actions such as arm pass, fore arm pass, blocking, smashing and defending in the playing situation.

Volleyball game is an excellent all-around team sports, has been widely accepted as a highly competitive as well as

recreational game all over the world. Now, it is a game of power and tactics and is played at a faster pace and this calls sharper thinking, high standard of skills and technical application

So, this present study was undertaken to measure the playing ability with physiological variables like, vital capacity, pulse rate, systolic blood pressure and diastolic blood pressure.

The purpose of the study was to know the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players.

2. Methodology

2.1 Selections of subjects: In order to achieve the purpose of the study forty (40) inter-collegiate volleyball men players were selected as the subjects. During inter collegiate tournament of Visvesvaraya technological University

2.2 Administration of Tests: Vital capacity was assessed with the help of dry spirometer, pulse rate, systolic blood pressure and diastolic blood pressure was assessed with the help of omran automatic blood pressure monitor MX3 volley ball playing ability was assessed through subjective rating, by three experts, during the intercollegiate tournament and the average was taken as criterion score.

2.3 statistical analysis: The collected data was tested with coefficient of correlation statistical technique to test the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players.

3. Results

To establish the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players. Pearson moment correlation(r) was computed and data pertaining to this has been presented in table-1.

Table 1

S. No	Variables	Correlation co-efficient
1	volleyball playing ability and vital capacity	.089
2	volleyball playing ability and pulse rate	.050
3	volleyball playing ability and systolic blood pressure	0.51
4	volleyball playing ability and diastolic blood pressure	.230*

*Significant at 0.05 level.

The above table shows the Relationship of selected physiological variables with volleyball playing ability among intercollegiate volleyball men players. There is a significant relationship between diastolic blood pressure (r=.230) volleyball playing ability among intercollegiate volleyball men players. There is no significant relationship between vital capacity (r=.089), pulse rate (r=.050) and systolic blood pressure (r=.051) volleyball playing ability among intercollegiate volleyball men players.

4. Conclusion

On the basis of findings of the present study, the following conclusions wear drawn;

1. There was a significant relationship found between the physiological variables such as diastolic blood pressure with volleyball playing ability among intercollegiate volleyball men players.
2. There was no significant relationship found between the physiological variables such as vital capacity, pulse rate and systolic blood pressure with volleyball playing ability among intercollegiate volleyball men players.

5. References

1. Clarke H Harrison. Application of measurement to Health and Physical Education, (5th Ed), Englewood cliffs: N.J Prentice Inc., 1976.
2. Cavala M, Rogulj N, Srhoj V, Srhoj L, Katic R. Biomotor structures in elite female Volleyball players according to performance. Collegium Antropologicum. 2008; 32(1):231-9.
3. Chaouachi A, Brughelli M, Levin G, Boudhina NBB, Cronin J, Chamari K, *et al*. Anthropometric, physiological and performance haracteristics of elite team- Volleyballplayers. Journal of sports sciences. 2009; 27(2):151-157.
4. Duquet W, Carter JEL. Somatotyping. In: R.Eston and T Reilly (eds.) Kinanthropometry and Exercise Physiology Laboratory Manual. Anthropometry.Routledge, London, 2001; 1:47-64.
5. Jeyaraj N, Gopinathan P. relationship of selected anthropometric And physiological variables to Kabaddi Playing ability, Academic Sports Scholar, 2014; 3:6.
6. Sharkey. Coaches Guide to Sports Physiology, Englewood Cliff, New Jersey: Prentice Hall, Inc., 1975.