A Study on Physical and Motor Fitness Among Volleyball, Hand Ball and Kabaddi Players of Siddipet District in Telangana State

Dr. PONNA KISHAN
School Assistant (S.A), In Physical Education, Z.P.H.S (Boys) Peddammagadda, Cherial Mandal, Siddipet Dist, Telangana State, India.

***Abstract*—Motor fitness is regarded as the preparedness for performance with special regard for big muscles activity, in a more general phase of physical fitness. Fundamental and success of all games and sports is higher level of physical and motor fitness. Under any hypothesis, a secured and fit body is a re-requisite to become a top-level performer in any of the games and sports. Dr. Ponna Kishan (2026) conducted a research programme on comparison of selected physiological and physical factors of handball, kabaddi and volleyball players.**

***Index Terms*—Physical Fitness, Motor Fitness, Volleyball, Hand Ball and Kabaddi Players.**

I. INTRODUCTION

Volleyball is the game which is not having physical contact with opposite teams' player. Comparing to other two games in the study volleyball need less vital capacity because when every point was scored they will have the breathing time while net service. But vital capacity is needed while playing the rally. Endurance is needed to play whole five sets of math which is having 25 points in each set. Speed is needed to the ground and spike the ball while moving. Handball is a fast moving vigorous combative game so lot of oxygen is needed to play for an hour. So handball needs to be good oxygen uptake capacity (vital capacity). While handball has to play 60 minutes in a same energy level so lot of endurance is needed to play the game. While on the move of task break and while coming to difference speed will be needed to gain the position. Kabaddi is an also vigorous agility game with lot of body contact.

In this game vital capacity holds an important role while doing can't skill. Rider has to hold his breath while riding in opponent's court. If he loses his breath he will be called out. So more vital capacity need than any other sport in the study. Kabaddi players need endurance for play a 40 minutes and speed is needed for antiriders to catch the riders while riders need speed to escape from antiriders and to touch the enter line to gain the point. To study the significant difference between Volleyball players, Hand ball players and Kabaddi players with respect to diastolic blood pressure. To study the significant difference between Volley Ball players, Hand Ball Players and Kabaddi players with respect to 50 meters speed.

The limitation of the present study is as follows the food habits; other regular habits and life style are no controlled. The regular activities of the students will not be controlled. Family background of the subject will not be considerer. Environmental factors, which contribute to the mental ability of the players, were not taken into consideration. The response of the subject to the questionnaire might not be honest in all cases and this was recognized as a limitation. The present study was delighted in the following aspects. The study will be restricted to 30 Volley Ball, 30 Hand Ball and 30 Kabaddi players.

The age limit of the subject will be limited to the range of 18 to 25 years. The study was restricted to two physiological variables namely blood pressure and heart rate, Motor Fitness variables are Speed and Endurance.

II. METHODOLOGY

In this chapter the selection of subjects, selection of variables, reliability of the data, instrumental reliability, testers competence, subjects, collection of the data and statistical techniques employed for anglicizing the date have been described.



III. SELECTION OF SUBJECTS

A total of 90 inter collegiate level consist of volley ball, hand ball and kabaddi players were randomly selected.

IV. SELECTION OF VARIABLES

The research scholar reviewed the available scientific literature, books, journals, periodicals, and magazine and research papers pertaining to the study. Taking into confederation of the importance of these variables and the feasibility criteria for these following variables were selected for the investigator. Physiological Variables, Blood Pressure, Vital Capacity, Motor and Fitness Variables, Speed, Endurance Reliability of Data. The reliability of data was ensured by establishing the instrument reliability and subject reliability.

Subject Reliability: As the same subjects were used t measure for self-confidence and achievement motivation of ability with questionnaires by the same investigator were considered reliable.

Collection of Data: The administration of the test and the method of the collection data were explained while collecting the data.

Physiological Variables: Blood Pressure and Vital Capacity was measured by using Standard Instrument.

Motor Variables: Speed and Endurance was measured in Track.

Statistical Techniques: The data that were collected from the subjects were treated statistically. To find out the significance difference among the volley ball, hand ball and kabaddi players for the main purpose of the study was "A Study on Physical and Motor Fitness among Volley ball, Hand ball and Kabaddi players." Then the data were analysed with reference to the objectives and hypothesis by using student unpaired 't' test and Karl Perason's correlation coefficient by using SPSS 11.0 statistical software and results were obtained thereby have been interpreted.

Data Analysis: After the data had been collected, it was processed and tabulated using Microsoft Excel – 2000 Software. The data collected on Vital capacity, Diastolic blood pleasure, 50 meters Speed and Endurance of 1000 meters of Volley ball, Hand ball and Kabaddi players. The main purpose of the study was "A study on physical and motor fitness among Volley ball, Hand ball and Kabaddi players".

Then the data were analyzed with reference to the objectives and hypothesis by using student's unpaired t-test and Karl Pearson's correlations coefficient by using SPSS 11.0 statistical software and the results obtained there by have been interpreted. It is also the intention of the investigator to find the out whether differences in the independent variable namely group of players (Volleyball, Handball and Kabaddi players) with respect to Vital capacity, Diastolic blood pressure, 50 meters Speed and Endurance of 1000 meters and consequently others. The results are presented in the following section. To achieve this hypothesis, the Karl Pearson's correlation coefficient technique has been applied and results are presented in the following table.

TABLE-1: Results of correlation coefficient between vital capacity, diastolic blood pressure, speed 50 meters and endurance 1000 meters of all the three types of players:

Variables	Vital capacity	Diastolic blood pressure	50 meters speed	Endurance of 1000 meters
Vital capacity	1.0000			
Diastolic blood pressure	0.2596*	1.0000		
50 meters Speed	0.1223	-0.0602	1.0000	
Endurance of 1000 meters	0.1099	-0.0057	0.2062	1.0000

**Significant at 5% level of significance 9p<0.05. The relationship between vital capacity and diastolic blood pressure of all players (Volley ball, Hand ball & Kabaddi) players (r =0.2596, p<0.05) is found to positive and statistically significant at 5% level of significance.

Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, vital capacity increases with increase in diastolic blood pressure of all players. The relationship between vital capacity and 50 meters speed of all players (r=o.1223, p>0.05) is found to positive and statistically not significant at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis rejected. (r=0.1099, p>0.05) is found to positive and statistically not significant at 5% level of significance.

Hence, the null hypothesis is accepted and alternative hypothesis is rejected. The relationship between diastolic blood pressure and 50 meters speed of all players (r=-0.0602, p>0.05) is found to negative and statistically not significant at 5% level of significance. Hence, the null hypothesis is accepted and alternative is rejected. The relationship between diastolic blood pressure and endurance of 1000 meters of all players (r=-0.0057, p>0.05) is found to negative and statistically not significant at 5% level of significance.

V. CONCLUSION

The Volley ball players and Hand ball players have similar speed. The Volley ball players and Kabaddi players have similar speed. The Hand ball players and Kabaddi players have similar speed. The Volley ball players and Hand ball players have similar endurance. The Volley ball players and Kabaddi players have similar endurance. The Hand ball players and Kabaddi players have similar endurance. Vital capacity increases with increase in diastolic blood pressure of Hand ball player's Vital capacity increases with increase in diastolic blood pressure of all players (Volley ball, Hand ball & Kabaddi) players.

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