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Anil Kumar AB

Physical Education Director,
Government First Grade College,
Shikaripura, Kuvempu
University, Karnataka, India

Study on physiological variables of group games players

Anil Kumar AB

Abstract

Competition plays a vital role in today's modern era where records are being practically rewritten and are being excelled mostly in every successive competition. To achieve something in the high level competition one must undergo continuous and systematic plan of training right from childhood.

The main purpose of this study was to compare the physiological study such as Blood pressure and Vital capacity of interuniversity soft ball and cricket players of Karnataka state. To achieve the purpose of the study data was collected from eighty, forty from each game, who have represented university in soft ball and cricket game of Karnataka state. The age of the subjects were ranging from 18-25 years. The data collected was treated with the statistical technique 't' and found there is a significant difference in the selected physiological aspects between soft ball and cricket male players.

Keywords: Physiology, blood pressure, vital capacity, soft ball, cricket

Introduction

People have been playing sporting games in one form or another since antiquity. Sporting events appears in earliest mythology and athletes were major celebrities in ancient Greece. Over the centuries, crowds have gathered to watch sporting competition with sometimes violent and nationalistic outcomes.

Aspirations and expectations of the people pertaining to the performance of sportsmen all over the world are going higher and higher. High level of performance by sportsmen and require a highly scientific approach and it should be done right from the level of identifying talents.

The physiological variables play an important role for the attainment of high level sports performance. Physiological variables may be defined as those variables, which are directly linked with various physiological systems like heart rate, blood pressure, vital capacity, respiratory rate and hemoglobin. Physiological variables like cardiovascular efficiency, percentage of fat, reaction time, vital capacity and other should be taken into consideration. Cardio-respiratory endurance denoted capacity of individual to work effectively with the help of oxygen which is collected, transported and utilized by lungs, blood and muscles respectively. Any work as daily task or form of physical activity is directly related to energy supplying system which in turn is the cardio-respiratory endurance. The high intensity bouts of exercise, coupled with the total duration of the match, requires players to have well-developed aerobic and anaerobic a lactic (ATP-CP) energy systems.

Records and outstanding sporting achievement requires the highest standard of performance and maximum will power to achieve that standard. The limits of physiological performance are being consistently advanced through training and competition. Evaluation and analysis of word championships, Olympic games etc., indicate that only those athletes will achieve impressive performance who are suited for the sports in question, who possess the necessary moral characteristics, who have an outstanding physiological potential who have perfect command of the techniques and tactics of their sports and who have proved themselves over a number of years of competition. Soft ball and cricket is an outstanding game throughout the world. It is the most popular games.

Correspondence

Anil Kumar AB

Physical Education Director,
Government First Grade College,
Shikaripura, Kuvempu
University, Karnataka, India

Purpose of the study

The main purpose of this study was to compare the physiological variables such as Blood pressure and Vital capacity of interuniversity soft ball and cricket players of Karnataka state university represented players.

Methodology

To achieve the purpose of the study data was collected from eighty players, forty each from softball and cricket game, who have represented university in Karnataka state in softball and cricket game. Subjects were randomly selected during

tournaments. The age of the subjects were ranging from 18-25 years.

Statistical technique

The collected data was analyzed by using statistical technique ‘t’ test with the help of 20th version of SPSS.

Results

To achieve the purpose of the study that data collected were put to statistical treatment and results are presented in the following tables.

Table 1a: Mean, standard deviation and ‘t’ value of systolic blood pressure between softball and cricket players

Sl. No.	Players	Sample Size	Mean value	Standard deviation	‘t’ value
1.	softball	40	117.13	5.15	0.47
2.	cricket	40	116.75	3.55	

*significant at 0.05 level.

The data obtained from the table reveals that, there was no significant difference in systolic blood pressure between

softball and cricket players. Because, the calculated ‘t’ value 0.47 and which is lesser than the table value 1.96.

Table 1b: Mean, standard deviation and ‘t’ value of diastolic blood pressure softball and Cricket players

Sl. No.	Players	Sample Size	Mean value	Standard deviation	‘t’ value
1.	softball	40	75.58	4.99	0.43
2.	cricket	40	75.23	3.90	

*significant at 0.05 level.

The data presented in the table shows that there was no significant difference in diastolic blood pressure between

softball and Cricket players. Both the players are having similar mean values in this component.

Table 3: Mean, standard deviation and ‘t’ value of vital capacity between softball and Cricket players

Sl. No.	Players	Sample Size	Mean value	Standard deviation	‘t’ value
1.	softball	40	3.63	0.50	3.19*
2.	cricket	40	3.97	0.46	

*significant at 0.05 level.

The above table depicts the mean value, standard deviation and ‘t’ value of vital capacity. There was significant difference in vital capacity between softball and Cricket player. Cricket players are having good vital capacity than softball players.

Findings

The above result shows that there is a significant difference in the selected physiological aspects such as blood pressure and vital capacity respectively.

In blood pressure (systolic & diastolic), the data obtained from the table reveals that, there was no significant difference in systolic blood pressure and diastolic blood pressure between softball and cricket players. Because, the calculated ‘t’ values which is lesser than the table value 1.96. Hence, it is not significant at 0.05 level. So null hypothesis was accepted.

There was significant difference in vital capacity between softball and cricket players. Cricket players are having good vital capacity than soft ball players.

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