

Correlation of selected physiological variables to kabaddi playing ability

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ARTICLE DETAILS

Article History

Published Online: 13 March 2019

Keywords

Physiology, Kabaddi. Palying ability.

ABSTRACT

The purpose of the study was to determine the correlation of selected physiological variables to kabaddi playing ability. **METHODOLOGY**:- to achieve the objectives of the study four physiological variables were selected as independent variables and playing ability as dependent variable, which was assessed through subjective rating by three experts during the tournaments. Forty men kabaddi players took part in the Karnataka state level kabaddi tournament held at chikkamagalore district Karnataka state during the year of 2019 were selected as subjects. Age of the subjects was ranging between 18 to 28 years. Pearson's product moment correlation was used as a statistical tool to find out the result of the study and significant level was fixed at 0.05. **FINDINGS**:-the result of the study reveals that the selected physiological variables of resting heart rate, breath holding time, and vital capacity were significant correlation with kabaddi playing ability and only respiratory rate was not significant correlation with kabaddi playing ability.

1. Introduction

Physical Education & Sports provide an opportunity likes communication, contact and collaboration with others peoples. Playing sports is positive for the growth of body and social skills. Sports give confidence mutual thinking, control planning and delegation skills and also enhance self-reliance. Success in a sport gives a common sense of achievement, which as a result arouses one's recognition further. Sports are not just a religion, moral idea or an art but it is the mixture of all these things. It is a competitive physical activity which can either be casual or organized and its aim is to utilize, maintain and improve skills and physical ability while provide entertainment to participants and spectators. Sports activities are governed by a set of rules or customs, which make sure fair competitions. The sports member of the electorate at various levels usually considers the performance during the practice match and qualifies competitions but the physiological basis is usually unseen most of the time.

Kabaddi is our indigenous game, which requires skill and power. It is one of the major games in India. Kabaddi combines the characteristics of wrestling and rugby. Earlier it is played by only rural peoples in particularly during the festive days. Now many numbers of rural peoples as well as urban peoples are playing this game and tournaments are conducted various levels. It is added in the Asian games and our team brought laurels to our nation and also conducted world championship. Kabaddi is the National game of Iran and Bangladesh and the State game of Punjab, Tamil Nadu, and Andhra Pradesh. In India Kabaddi is a major sport, which is played all over the India. At present Kabaddi is played in more than sixty five countries an especially Asian country.

Kabaddi is a complete collective sporting modality, characterized by the great amount and variety in its movements, ball manipulations and interaction with other athletes. Looking for a better dynamic and objectivity, Kabaddi passed through several evolutionary processes that,

consequently, started to demand from the athlete's larger physiological adaptations and other characteristics. The athlete's income in the Kabaddi of high level depends directly on several variables. The evaluation of the performance implicates the recognition and denomination of the individual level of the components of the sporting performance or of a conditioning situation. (Weineck, 1999).

It is essential that all the variables related to the athlete's performance be evaluated. Even with that importance, it is still noticed a lack of studies that use evaluations and analysis with direct measures, seeking to determine the maximum aerobic potency the maximum anaerobic potency, the anaerobic threshold and the lactate threshold, in athletes of the feminine Kabaddi.

For our country to be successful in sports, to distinguish the representing sportsman much earlier is indisputably required. As in all sports, technical, tactics, capacity as well as condition of a team are the basic elements to be successful in

Kabaddi Main discussion in this manner seems to continue in terminological concepts. Physical variables as age, height, weight, taking role in Kabaddi sport branch were taken into consideration. As selection of a proper person for Kabaddi is performed in early ages, physiological properties with physical profile should be learned. Variables to determine physical profile were observed. The observed variables comprise of respiration parameters, blood pressures, aerobic and anaerobic capacity. Aerobic exercise shortly means a work with oxygen. It is realized with working of large muscle groups in the presence of abundant oxygen, at 60% - 80% level of maximum pulse for at least 12 minutes or long period. The indicated period, 12 minutes, is very essential, here. Because, at the end of this period, the enzymes to burn the fat of body are produced then. In addition, aerobic exercise causes to increase the intake amount of oxygen into body, to provide heart to consume much oxygen and increase condition level of heart as well as lungs. Anaerobic means lack of oxygen

muscles work with needed to oxygen. This case also activates the sugar consuming enzymes. In this activation, more energy is consumed than the body may produce with metabolizing oxygen.

In considering the importance of the above selected physiological variables the present study was undertaken with the ultimate aim to determine and identify the correlation of selected physiological variables with Kabaddi playing ability.

2. Methodology

The selection of subjects, variables and statistical procedure were explained.

2.1. Selection of subjects

To achieve the objectives of the study four physiological variables were selected as independent variables and playing ability as dependent variable, which was assessed through subjective rating by three experts during the tournaments. Forty men Kabaddi players took part in the Karnataka state level open kabaddi tournament held at chikkamagalore district Karnataka state during the year of 2019 were selected as subjects. Age of the subjects was ranging between 18 to 28 years

2.2. Selection of variables

The physiological variables such as resting heart rate, breath holding time, respiratory rate, and vital capacity were selected in this study. The entire test was conducted with standardized testing procedure. The dependent variable was playing ability includes the ability of positional play, initiate hold, team support, raiding, difference touch, tactics of raid, tactic of defend, general behavior, communication and analyze the opponents, which was assessed through subjective rating by three experts. The average of three experts was the individual criterion score.

2.3. Statistical Procedure

Pearson's product moment correlation was used as a tool to find out the correlation of selected physiological variables

with Kabaddi playing ability. The level of significance was set at 0.05 and SPSS package was used for statistical analysis.

3. Result and discussion

Find out the correlation of selected physiological variables with Kabaddi playing ability of state level kabaddi men players. Product- Moment Method of correlation was used.

TABLE -1
Correlation between dependent variable (kabaddi playing ability) and independent variables (breath holding time, vital capacity, resting heart rate and respiratory rate) of state level kabaddi men players.

Si no	No	Independent Variables	Pearson Correlation
1	40	Kabaddi playing ability and breath holding time	0.762*
2	40	Kabaddi playing ability and vital capacity	0.586*
3	40	Kabaddi playing ability and resting heart rate	0.528*
4	40	Kabaddi playing ability and respiratory rate	0.252

*Significant at 0.05 level

Table-I had shown the correlation of selected physiological variables with Kabaddi playing ability. In this analysis all the selected variables were significant correlation with playing ability and among this breath holding time ($r=0.762^*$) having highest correlation and other variables vital capacity ($r=0.586^*$) and resting heart rate ($r=0.528^*$). Only respiratory rate (0.252) was not significant correlation with Kabaddi playing ability. The present result of the study was supported by Chaouachi et al (2009) and Dey et al. (1993).

4. Conclusion

From the above results and discussions the following conclusions were drawn the selected physiological variables resting heart rate, breathe holding time and vital capacity having significant correlation with Kabaddi playing ability and respiratory rate not having significant correlation with Kabaddi playing ability.

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