



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2019; 4(1): 1552-1553

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www.theyogicjournal.com

Received: 08-01-2019

Accepted: 06-02-2019

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Identification of anthropometric factor correlated to playing ability of intercollegiate level Kho-Kho players

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Abstract

To predict the playing ability and anthropometric variables among Intercollegiate Kho Kho players. For this study N=100 men intercollegiate Kho Kho players were selected as participants from Affiliated college of Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, India. Selected participants age from 18 to 25 years. Anthropometric component (Height, Weight, Arm Length and Leg Length) was selected as independent variable, and playing ability were selected as criterion variable for this study. Descriptive and correlation were used to analysis the data at 0.05 level of significance. Results conclude that there is a significant relationship between Kho Kho playing ability and Anthropometric Variables.

Keywords: Anthropometric, playing ability, Kho-Kho

Introduction

Kho-Kho is one of India's most popular traditional sports (Tiwari, & Venugopal, 2015) [15]. Kho Kho is one of the indigenous games in our country (Roy, De, & Nandi, (2016) [3]. This game is incredibly thrilling because of the dodging, feinting, and controlled speed bursts (Jaiswal, 2014) [7].

A variety of elements influence sportspeople's performance, including age, gender, motor development, physiological, biochemical, biomechanical, hereditary, anthropological, and psychological aspects (Carter, 1970) [3]. Size, shape, physique, proportions, physical fitness, and skill efficiency level are all important elements in greater performance. (Mishra, & Rathore, 2015) [8].

Several studies on various body characteristics of different sports activities have been carried out by many researchers and they concluded that strong relationship exist between structure and performance (Jaiswal, 2014; Gualdi-Russo, & Zaccagni, 2001; Rienzi, Drust, Reilly, Carter, & Martin, 2000; Carter, 1984; Morrow, & Donovan, 1982; Guennadi, 1990; Bell, & Rhodes, 1975) [7, 5, 12, 4, 9, 6, 1].

Purpose of the Study

To predict the playing ability and anthropometric variables among Intercollegiate Kho Kho players.

Methods

For this study N=100 men intercollegiate Kho Kho players were selected as participants from Affiliated college of Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu, India. Selected participants age from 18 to 25 years. Anthropometric component (Height, Weight, Arm Length and Leg Length) was selected as independent variable, and playing ability were selected as criterion variable for this study.

The Stadiometer was used to determine height. (Mishra, & Rathore, 2015) [8]. A weighing machine was used to determine weight (Mishra, & Rathore, 2015) [8]. Small Sliding Caliper was used to measure arm length, and Lufkin anthropometric tape was used to measure leg length. Judges' rating scales were used to assess Kho-Kho playing abilities. (Paul, & Das, 2016) [11]. Descriptive and correlation were used to analysis the data at 0.05 level of significance.

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Results and Discussion

Table 1 represent the summary of descriptive statistics

Table 1: The summary of descriptive statistics on selected anthropometrical variables of kabaddi players

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Height	100	155	178	165.78	2.50
Weight	100	52.4	70.26	65.25	3.01
Arm Length	100	74	85	80.02	3.13
Leg Length	100	76	91	84.13	2.75

The data on the selected anthropometric variables with playing ability were statistically analyzed using Pearson product moment correlation and the results are presented in table 2.

Table 2: Correlation

Dependent variable	Independent variable	Coefficient Correlation	Sig
Playing ability	Height	0.542*	0.001
	Weight	-0.245*	0.021
	Arm Length	0.432*	0.000
	Leg length	0.342*	0.033

From table 2 Table - 3 Shows all the p values $p < 0.005$, it indicates that there exists a significant relationship between Kho Kho playing ability and Anthropometric Variables.

The Results of the study also supported from previous studies with various team sports players like kho kho and kabaddi players Biswas, & Halder, (2015)^[2]; Muniraju, & Santhosha, (2019)^[10], volleyball players Mishra, & Rathore, (2015)^[8], Kho Kho Jaiswal, (2014)^[7].

Conclusion

1. Significant association was found between Kho kho playing ability & Height
2. Significant association was found between Kho kho playing ability & Weight
3. Significant association was found between Kho kho playing ability & Arm Length
4. Significant association was found between Kho kho playing ability & Leg length

Reference

1. Bell W, Rhodes G. The morphological characteristics of the association football player. *British journal of sports medicine*. 1975;9(4):196.
2. Biswas M, Halder S. A Comparative Study on Selected Anthropometric Variables and Motor Abilities between Women Kho-Kho and Kabaddi Players. *International Journal of Physical Education, Sports and Health*. 2015;2(1):66-68.
3. Carter JL. The somatotypes of athletes—a review. *Human biology*; c1970. p. 535-569.
4. Carter JL. Somatotypes of Olympic athletes from 1948 to 1976. In *Physical structure of Olympic athletes*. Karger Publishers. 1984;18:80-109.
5. Gualdi-Russo E, Zaccagni L. Somatotype, role and performance in elite volleyball players. *Journal of Sports Medicine and physical fitness*. 2001;41(2):256.
6. Guennadi G. Anthropometric and physical fitness parameters for high jumpers of different are groups. *Scientific journal*. 1990;13:9-10.
7. Jaiswal A. Anthropometric and somatotyping study

among the female Kho-Kho players of Pondicherry: a comparative analysis. *J Glob. Econ*. 2014;2(4):1-3.

8. Mishra MK, Rathore VS. Selected Anthropometric Parameters as a Predictors of Volleyball Playing Ability. *International Journal of Science and Research*. 2015;4(9):436-439.
9. Morrow JR, JG D, Donovan TI. Anthropometric, strength, and performance characteristics of American world class throwers. *J Sports Med. Phys. Fitness*, 1982. ISSN 0022-4707.
10. Muniraju S, Santhosha C. A comparative study on selected anthropometric variables among college level male kabaddi and Kho-Kho players; c2019.
11. Paul S, Das SS. Physiological performance structure of male Kho-Kho players. *International Journal of Physical Education, Sports and Health*. 2016;3(3):98-100.
12. Rienzi E, Drust B, Reilly T, Carter JEXL, Martin A. Investigation of anthropometric and work-rate profiles of elite South American international soccer players. *Journal of sports medicine and physical fitness*. 2000;40(2):162.
13. Roy T, De A, Nandi DSC. A study on mental toughness in relation to agility and reaction ability among female kho kho players. *Int J Home Sci*. 2016;2(3):406-9.
14. Tiwari R, Venugopal R. To develop a tapping skill test for Kho-Kho female players. *IJAR*. 2015;1(13):164-166.