



Category: science of sports training



EFFECT OF SPECIFIC TRAINING ON SELECTED MOTOR FITNESS AND PHYSIOLOGICAL VARIABLES AMONG SCHOOL BOYS KABADDI PLAYERS

KOUSHIK BHOWMIK¹, GOWRISANKARA PRASAD R², BANAVATHU.VARUN NAIK³

^{1,2,3}Ph.D scholar Ramakrishna Mission Vivekananda University, GAPEY, CBE-20

INTRODUCTION

The game consists of two teams the Raider and the Defender with 9 players each in the field. There are two circular posts called "castle" and "outpost" at the opposite ends inside the bigger oval field. Dimensions of the ground are fixed on mutual agreement. Raiders are occupants of the castle and the outpost while the Defenders occupy the outfield. The raiders have 8 players in the castle and one Buddhiya trapped in the outpost. The defender/raider that is "OUT" shall be sent off the field. Raiders' objective is to facilitate escape of the Buddhiya trapped at the outpost; they do this by raiding the defenders and "OUT" them. A player can also get "OUT" by going over a boundary line or part of the body touches the ground outside the boundary. Kabaddi received international exposure during the 1936 Berlin Olympics, demonstrated by Hanuman Vyayam Prasarak Mandal, Amaravati, and Maharashtra. The game was introduced in the Indian Olympic Games at Calcuttain 1938. In 1950 the All India Kabaddi Federation came into existence and compiled standard rules. The Amateur Kabaddi Federation of India (AKFI) was founded in 1973. Kabaddi is now a very popular game and is a regular sport in Asian Games, Asian Indoor Games and Asian Beach Games apart from SAF Games. Kabaddi will be a demonstration sport during Commonwealth Games 2010 at New Delhi.

MOTOR FITNESS

The motor fitness components which enable a person to perform successfully at a particular motor skill, game or activity. specific motor fitness components include speed, agility, balance, co-ordination, power and reaction time. Motor fitness is some time referred to as skill-related fitness.

STATEMENT OF THE PROBLEM

The purpose of this study was to find out the effect of specific training on selected Motor Fitness, and physiological variables among school boys kabaddi players.

HYPOTHESIS

1. It was hypothesized that the significant difference on the effect of specific training on selected Motor Fitness variables among school boys kabaddi players.
2. It was hypothesized that the significant difference on the effect of specific training on selected physiological variables among school boys kabaddi players.

SIGNIFICANCE OF THE STUDY

This study was significant in the following ways:

- The study will be significant in determining different training schedules for kabaddi players.
- The study will be significant in assessing the Motor Fitness, and physiological levels of school boys kabaddi players.
- The study will be significant in finding out the effect of specific training on selected Motor Fitness, and physiological variables among school boys kabaddi players.



- This study would be beneficial to physical education teachers and fitness trainers to prescribe suitable game specific training for increasing performance.
- The findings of this study would be helpful to the kabaddi players in improving their Motor Fitness, and physiological fitness.
- The findings of this study would be helpful for future researchers to undertake similar studies at different level

DELIMITATIONS

The study was delimited to the following aspects.

- Thirty (30) kabaddi men players were randomly selected from Government. High School. In Guntur
- The subjects selected for this study were in the age group of 12-14 years.
- The period of training programme was delimited to six weeks only.
- The subjects were divided into two groups. Each group consisting of fifteen each, namely, experimental group and control group.
- The training of this study is considered as independent variables like game specific training on circuit based.
- Motor Fitness, and physiological variables as dependent variables.

LIMITATIONS

The study was limited in the following ways, which would be taken into consideration at the time of findings of this study.

1. The investigator has not taken into consideration of the past experiences of the subjects in exercising.
2. The climatic conditions, diet and other daily routines of the subjects were not controlled.
3. The economical and social background of the overweight girls was not taken into consideration.

METHODOLOGY

SELECTION OF SUBJECTS

To achieve the purpose of this study 30 boys kabaddi players were selected at government higher secondary school koomapatti. The age of the subjects ranged from 14 to 16 years. The selected subjects were divided into one experimental group and one control group at random.

SELECTION VARIABLES

The research scholar reviewed the available scientific literature, books, journals, periodicals, magazines and research papers experts' opinion. Taking into consideration the feasibility criteria in terms of availability of instruments and relevance of the variables, the variables present study was identified.

Independent variables

Specific training

Dependent Variables

Motor fitness variable

- Speed
- Strength
- Flexibility

Physiological variables

- Resting heart rate

SELECTION OF VARIABLES & TESTS:

The motor fitness and physiological variables and test items were follows in table I



TABLE I

VARIABLES	TEST ITEMS
Speed	50 yard dash
Strength	Push ups
Flexibility	Sit & Reach
Resting Heart rate	Stethoscope

Training Programme

Specific Training

Duration is 6 Weeks for 3 alternative days

Training Schedule for Package

Name of the Training (Monday, Wednesday & Friday)		Duration		
S.No	Contents	1 st & 2 nd week	3 rd & 4 th week	5 th & 6 th week
		45 min	45 min	45 min
1	Warm up	8 min	7 min	5 min
2	Sprinting	10sec	20sec	20sec
3	Jogging	30sec	15sec	15sec
4	Shuttle run	20sec	25sec	25sec
5	Break	5 min	3 min	2 min
6	Chain formation	3 min	3 min	2 min
7	Chain breaking	5 min	5 min	7 min
8	Defensive skills	6 min	8 min	10 min
9	Offensive skills	6 min	8 min	10 min
10	Warm down	10 min	10min	10 min

EXPERIMENTAL DESIGN

The selected 30 subjects were divided into two groups, namely experimental group and control group. Each group consists of 15 players and each of the subjects were pre tested for their motor fitness and physiological variables. An intentional programmer of specific training experimental group, and the control group was not given any experimental treatment. After the experimental period of six weeks, post-tests scores were obtained from all the two groups. The difference between initial and final scores on specific training motor fitness and physiological variables considered the effect of specific training on selected motor fitness and physiological variables among school boys kabaddi players.

STATISTICAL TECHNIQUE

The data collected from the subject on selected motor fitness and physiological variables was statistically analyzed by using 't' ratio, 0.05 level of confidence was fixed to test the level of significance.

Table -II: Table Showing the Mean, Mean Difference, Standard Deviation and 't' value of Experimental and Control Group on Speed

Group	Pre-Mean	Post-Mean	Standard Deviation Between Mean	Mean Deviation	Df	t- ratio
Experimental Group	7.98	7.62	0.31	0.34	14	4.32
Control Group	8.02	8.00	0.03	0.01	14	1.81

*Significance at 0.05 level of confidence



Table-III: Table Showing the Mean, Mean Difference, Standard Deviation and 't' value of Experimental and Control Group on Strength

Group	Pre-Mean	Post-Mean	Standard Deviation Between the Mean	Mean Deviation	df	t-ratio
Experimental Group	12.73	17.93	1.20	5.20	14	16.68
Control Group	12.33	12.20	1.13	.133	14	0.46

* Significance at 0.05 level of confidence

Table-IV; Table Showing the Mean, Mean Difference, Standard Deviation and 't' value of Experimental and Control Group on Flexibility

Group	Pre-Mean	Post-Mean	Standard Deviation Between the Mean	Mean Deviation	df	t-ratio
Experimental Group	11.92	13.31	0.60	1.39	14	9.03
Control Group	11.91	11.80	0.49	0.13	14	1.12

* significance at 0.05 level of confidence.

Table -V: Table Showing the Mean, Mean Difference, Standard Deviation and 't' value of Experimental and Control Group on Resting heart rate

Group	Pre-Mean	Post-Mean	Standard Deviation Between the Mean	Mean Deviation	df	t-ratio
Experimental Group	72.93	71.00	0.88	1.93	14	8.50
Control Group	73.20	72.87	1.23	.333	14	1.04

DISCUSSIONS ON FINDINGS

The result of the study indicates that the experimental group namely specific training group had significantly improved the selected dependent variables namely Physical Variable Dependent variable, when compared to the control group. It is also found that the improvement caused by specific training when compared to the control group.

The result of the study indicates that the experimental group namely training group had significantly improved the selected dependent variables namely Physiological Variable Dependent variable, when compared to the control group. It is also found that the improvement caused by training when compared to the control group.

CONCLUSIONS

Within the limitations of the study the following conclusion were drawn.

International Journal of Law, Education, Social and Sports Studies (IJLESS)

A Peer Reviewed (Refereed) International Research Journal

Homepage:www.ijless.kypublications.com

Vol. 2. Supplementary issue 3.2015 (October)



1. Speed, Strength, Flexibility, Resting heart rate, and were significantly improved due to effect of specific training.
2. In speed the experimental group showed significantly greater improvement than the control group.
3. In strength the experimental group showed significantly greater improvement than the control group.
4. In flexibility the experimental group showed significantly greater improvement than the control group.
5. In Resting heart rate the experimental group showed significantly greater improvement than the control group.

REFERANCE

- [1]. Amit Agrawal. Acute inter-hemispheric subdural hematoma in a Kabaddi player. J Neurosci Rural Pract. 2010 Jul-Dec; 1(2): 122–123. doi: 10.4103/0976-3147.71733. PMID: PMC3139343.
- [2]. Ariel Diaz, Martial G. Bourassa, Marie-Claude Guertin, Jean-Claude Tardif. Long-term prognostic value of resting heart rate in patients with suspected or proven coronary artery disease. February 1, 2005.
- [3]. Binnie MJ, Peeling P, Pinnington H, Landers G, Dawson B. Effect of surface-specific training on 20 m sprint performance on sand and grass surfaces. 2013 Mar 8.
- [4]. Bosquet L, Berryman N, Dupuy O, Mekary S, Arvisais D, Bherer L, Mujika I. Effect of training cessation on muscular performance: A meta-analysis. 2013 Jan 24. doi: 10.1111/sms.12047.