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Effect of pranayama training on physiological variables of school level students

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Abstract

This study was conducted to find out the effects of pranayama training on physiological variables of school level students. This was an experimental study. For conducted this study, 50 male kabaddi players were selected as the subjects. They were divided into two groups randomly, each group have 25 subjects. Group-I assigned for pranayama training, Group II- as a control group. Control group was not participated any type of training. Systolic blood pressure, diastolic blood pressure, resting heart rate and breath holding were selected as the variables of physiological effect for the study. The subjects were participated in six weeks yoga training program. The data for the study was collected through the pre and post-test of six weeks training program. For analyzing the data of physical fitness variables descriptive analysis and t - test was applied at 0.05test level of significant. The result of the study showed that there was significant improvement in physiological variables due to pranayama training.

Keywords: Pranayama, physiological, systolic blood pressure, diastolic blood pressure, resting heart rate and breath holding

Introduction

Pranayama exercise is the forms of exercise in which we performed slowly and with great awareness of the breath control. In other form of physical exercise like sports, aerobics and gymnastic exercise require a vigorous and often competitive use of the body to increase the heart rate and achieve a cardiovascular workout. These type of exercises often leaves the individual sweat exhausted and all out of breath. In the other hand after yoga practices the yogi may feel relax rather than tired. With the regular exercise of pranayama individual feels both mentally and physical fit and to be aware of the development.

Yoga is a scientific way of right living and related with all aspect of life of a person: the physical, vital, mental, emotional, psychic and spiritual. In spiritual way it is the union of individual consciousness with universal consciousness. Yoga is the best way to balancing and harmonizing of the body, mind and emotions. Pranayama is an excellent means to exercising and strengthening the inner organs of the body. With the help of pranayama we become master of the body's energy system. We gain more control on ourselves. It purify the body from impurities and very beneficial for physiological system of the inner organs.

Objectives of study

To find out the effect pranayama training on physiological variables

Methodology

Selection of the subject

For this study 50 male kabaddi players from dist. Gurgaon, Haryana were selected by purposive sampling and they were divided into two groups randomly as the subjects of the study. Each group has 25 subjects.

- Group-I for pranayama Training.
- Group-II as a control group. Control group was not participated any type of yoga training.

Selection of variables

The following physiological variables were selected to found out the effects of pranayama training.

- Breath holding time
- Resting heart rate

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- Systolic blood pressure
- Diastolic blood pressure

Selection of test

The purpose of this study will be assess the effect of pranayama training on physiological variables, the following test will be select to measure the variables

1. Breath holding time: Stop watch
2. Resting heart rate: Stop watch
3. Systolic blood pressure: Sphygmomanometer, Stethoscope
4. Diastolic blood pressure: Sphygmomanometer, Stethoscope

Experimental design and training Schedule

The present study was a experiment design study. In this study pre-test were conducted prior to yoga training of six weeks and post tests were conducted after the training. This training was given to students five day in a week. Each training session was 50 minutes long. Each session had 10 minutes warming up and 10 minutes cooling down exercises.

Pranayama group training

Table 2: Comparison of Pre and Post experiment results of Physiological variables of Pranayama group and Control group

Group Name	Variable	Mean	Std. Deviation	Std. Error Mean	SED	T
Pranayama Group (N=25)	Systolic Blood Pressure	118.6800	3.35062	.67012	.561	2.065
		117.5200	1.68622	.33724		
Control Group (N=25)	Systolic Blood Pressure	118.6400	2.94222	.58844	.446	.359
		118.4800	2.36502	.47300		
Pranayama Group (N=25)	Diastolic Blood Pressure	77.1200	2.90574	.58115	.509	2.119
		76.0400	2.22636	.44527		
Control Group (N=25)	Diastolic Blood Pressure	76.4800	3.02930	.60586	.525	.152
		76.4000	2.44949	.48990		
Pranayama Group (N=25)	Resting Heart Rate	67.8400	4.50629	.90126	.494	7.608
		64.0800	3.85054	.77011		
Control Group (N=25)	Resting Heart Rate	67.9200	5.67098	1.13420	.695	.690
		68.4000	3.95811	.79162		
Pranayama Group (N=25)	Breath holding time	46.0576	8.75623	1.75125	.658	7.869
		51.2356	9.92456	1.98491		
Control Group (N=25)	Breath holding time	44.4020	5.67098	1.69215	.577	.056
		44.4344	3.95811	1.63660		

The table showed the mean and SD and t value of physiological variables of Experimental group and control group. The results of the data showed that pre and post value of experiment t value of breath holding, resting heart rate, systolic blood pressure and diastolic blood pressure is significant at .05 level of significance, whereas t value of pre and post value of control group of breath holding, resting heart rate, systolic blood pressure and diastolic blood pressure is not significant at .05 level of significance. Which show that there are significant improvements in physiological variables after 6 weeks Yoga Pranayama training. Yoga Pranayama is recom

mended exercise for improvement of Physiological components for school going student.

Conclusion

The results of the study clearly showed that the effects of yoga pranayama training on physiological variables on school level students were positively significant. The results

Each training session of pranayamas group will have six pranayamas.

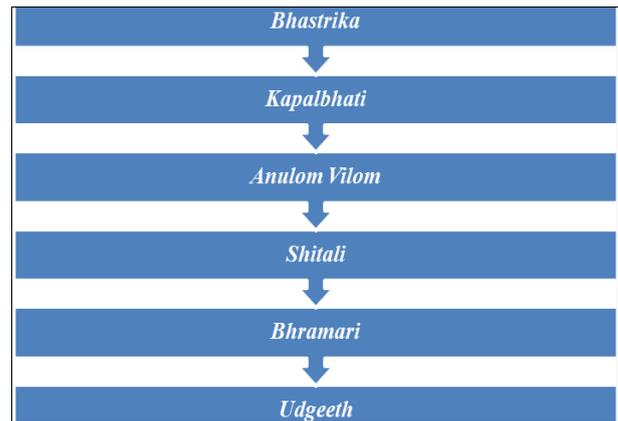


Fig 1: Pranayama training

Statistical procedure

For analyzed the effects of training on physiological variables a descriptive analysis and t- test ratio were used. The level of significance was 0.05.

proved that yoga pranayama are very helpful to improve physiological fitness of the kabaddi players.

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