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IMPACT OF PRANAYAMA PRACTICES ON SELECTED PULMONARY VARIABLES ON COLLEGE LEVEL BADMINTON PLAYERS

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ABSTRACT

To achieve this purpose (N= 30) subjects selected from Ramakrishna Mission Vidyalaya maruthi college of physical education. The subjects divided in to two groups namely group I (n=15) experimental group and group II (n= 15) control group. The subjects selected purposive sampling method and their age ranged between 21 to 24 years. Group-I Experimental group underwent pranayama practices on morning 6.00 to 6.30 am.weekly 6 days up to 8 weeks. The selected pranayama training were given Kapalapathi, Nadi sudhi, Brimahri, Uijjai and Bhastrica. The control group did not participate any training. The selected criterion pulmonary variables are Vital capacity(VC), Total lung capacity(TLC) and Tidal volume (TV). The variables are tested with computerized electronic spirometry was used. Prior and after practice data were collected. The collect data were treated with paired "t" test was used. Level of significant was fixed at 0.05 level. The result of the study was showed that significant difference between experimental group and control group. Experimental group improves on vital capacity, total lung capacity and tidal volume compared with control group.

KEYWORDS : Pranayama, Kapalapathi, Nadi Sudhi,Brimahri,Vital Capacity.

INTRODUCTION

Yoga is the traditional physical and psychological discipline that originated in India. It has gained tremendous popularity both East and West. People of the present generation are health – conscious and are practicing yogic exercises (Pranayama) for remaining healthy and fresh. Pranayama, as traditionally conceived, involved much more than merely breathing relaxation. Patanjali defines pranayama as the regulation of the incoming and outgoing flow of breath with retention. It is to be practiced only after perfection in asana is attained. Pranayama also denotes cosmic power, or the power of the entire universe which manifests itself as conscious living being in us through the phenomenon of breathing. Prana means energy, air, when this self energizing force embraces the body. When this self- energizing force embraces the body with extension, expansion and control, it is pranayama. Ayama means stretch, extension, expansion, length, breath, regulation, prolongation, restraint and control and describes the action of pranayama. The purpose of the study was to find out impact of pranayama practices on selected pulmonary variables on college level badminton players.

METHODOLOGY

To achieve this purpose (N= 30) subjects selected from Ramakrishna Mission Vidyalaya Maruthi college of physical education. The subjects divided in to two groups namely group I (n=15) experimental group and group II (n= 15) control group. The subjects selected purposive sampling method and their age ranged between 21 to 24 years. Group-I Experimental group underwent in to pranayama practices on morning 6.00 to 6.30 am. weekly 6 days up to 8 weeks. The selected pranayama training were given Kapalapathi, Nadi sudhi, Brimahri, Uijjai and Bhastrika. The control group did not participate any training. The selected criterion pulmonary variables are Vital capacity(VC), Total lung capacity(TLC) and Tidal volume (TV). The variables are tested with computerized electronic spirometry was used. Prior and after 8 weeks practice data were collected. The collect data were treated with paired "t" test was used. Level of significant was fixed at 0.05 level.

RESULTS

The results of the experimental and control groups on vital capacity presented in table-1

TABLE-1

THE MEAN, STANDARD DEVIATION, STANDARD ERROR AND 't' RATIO OF THE EXPERIMENTAL AND CONTROL GROUPS ON VITAL CAPACITY(ltrs)

Group	Test	X	σ	DM	σ DM	't'
Experimental Group	Pre test	3.48	0.33	0.4533	0.17262	2.62*
	Post test	3.93	0.47			
Control Group	Pre test	3.38	0.20	0.02	0.10655	0.18
	Post test	3.40	0.39			

*Significant Level of significance 0.05 Table value 2.14 with df 14

From the table-1 result shows that 't' values of vital capacity between pre and post test of experimental and control groups. Significant difference only experimental group obtained 't' values is 2.62 which is greater than table value of 2.14 with df 14 at 0.05 level of significant. Insignificant difference shows that control group obtained 't' value is 0.18 which is lesser than table value 2.14.

Figure:- 1 THE MEAN VALUES PRE AND POST TEST OF VITAL CAPACITY EXPERIMENTAL AND CONTROL GROUPS

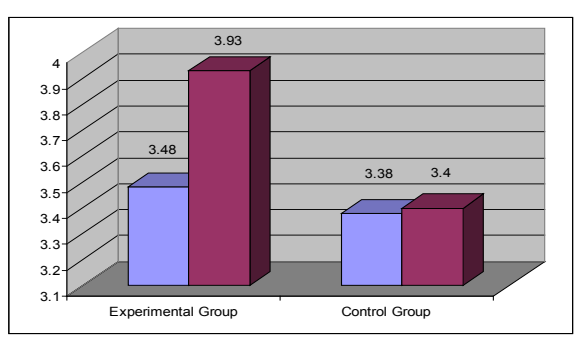

Figure:1 shows that experimental group significantly improves on vital capacity of eight weeks pranayama practices.

TABLE-2

THE MEAN, STANDARD DEVIATION, STANDARD ERROR AND 't' RATIO OF THE EXPERIMENTAL AND CONTROL GROUPS ON TOTAL LUNG VOLUME (ltrs)

Group	Test	X	Σ	DM	σ DM	't'
Experimental Group	Pre test	3.92	0.23	0.21333	0.7488	2.84*
	Post test	4.14	0.21			
Control Group	Pre test	3.94	0.21	0.02	0.10610	0.19
	Post test	3.96	0.44			

*Significant Level of significance 0.05 Table value 2.14 with df 14

From the table-2 result shows that 't' values of total lung volume between pre and post test of experimental and control groups. Significant difference only experimental group obtained 't' values is 2.84 which is greater than table value of 2.14 with df 14 at 0.05 level of significant. Insignificant difference shows that control group obtained 't' value is 0.19 which is lesser than table value 2.14.

Figure:- 2 THE MEAN VALUES PRE AND POST TEST OF TOTAL LUNG VOLUME EXPERIMENTAL AND CONTROL GROUPS

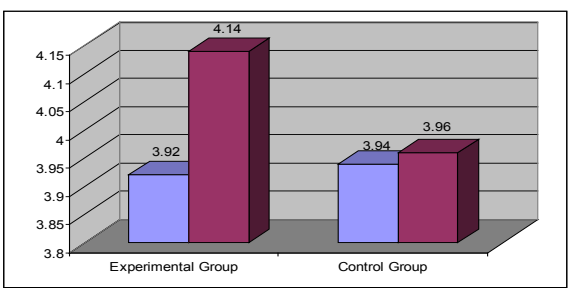

Figure : 2 shows that experimental group significantly improves on total lung volume of eight weeks pranayama practices.

TABLE-3

THE RESULTS OF THE EXPERIMENTAL AND CONTROL GROUPS ON TIDAL VOLUME(ltrs)

Group	Test	X	σ	DM	σ DM	't'
Experimental Group	Pre test	0.52	0.19	0.23333	0.05404	4.31*
	Post test	0.76	0.18			
Control Group	Pre test	0.54	0.17	0.01333	0.00909	1.46
	Post test	0.56	0.15			

*Significant Level of significance 0.05 Table value 2.14 with df 14

From the table-3 result shows that 't' values of tidal volume between pre and post test of experimental and control groups. Significant difference only experimental group obtained 't' values is 4.31 which is greater than table value of 2.14 with df 14 at 0.05 level of significant. Insignificant difference shows that control group obtained 't' value is 1.46 which is lesser than table value 2.14.

Figure:- 3 THE MEAN VALUES PRE AND POST TEST OF TIDAL VOLUME EXPERIMENTAL AND CONTROL GROUPS

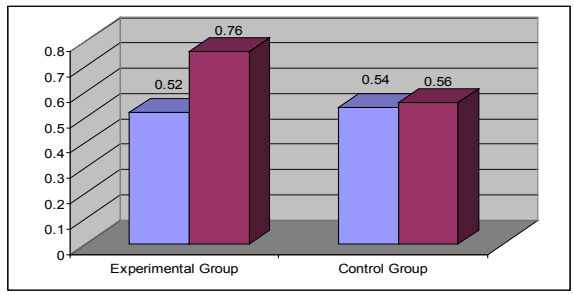

Figure : 3 shows that experimental group significantly improves on tidal volume of eight weeks pranayama practices.

CONCLUSIONS

From the analysis data , the following conclusion were drawn

Due to pranayama practices improves on selected pulmonary variables vital capacity, total lung volume and tidal volume experimental group

Significant difference between pre and post test of experimental group and control group.

IMPLICATION

To suggest to practices pranayama for sports persons promoting the performance

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