



EFFECTS OF SIX WEEKS PRANAYAMA ON LUNG CAPACITY OF FOOTBALL PLAYERS

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Abstract

Yoga is a life of self-discipline. Yoga balances, harmonizes, purifies and strengthens the body, mind and soul. It shows the way to perfect health, perfect mind control and perfect peace with one's own self, the world, nature and God. The word pranayama is formed by two words i.e. PRANA and AYAMA. Prana means a subtle life force, which provides energy to different organs (including mind) and also controls many vital life process (e.g. circulation, respiration etc.) Ayama signifies the voluntary effort to control and direct this Prana. Forty Football players served as the subjects for the study. The age ranged from 18 to 23 years. The subjects were randomly assigned as experimental and control groups, each group consisted of twenty subjects. The requirement of the study was explained to all subjects. All the subjects voluntarily agreed to undergo the testing and training programs. The vital capacity was measured by Spirometer (Helios 401). There was no significant difference in the initial and final means of vital capacity of subject control group as the obtained 't' value 1.022 at 0.05 level of confidence of the 19 degrees of freedom and value needed to be significant is 2.093. Thus the Pranayama training program has positive effect on vital capacity.

Keywords: Pranayama, Lung Capacity, Spirometer.

Introduction

Yoga is a life of self-discipline. Yoga balances,harmonizes, purifies and strengthens the body, mind and soul. It shows the way to perfect health, perfect mind control and perfect peace with one's own self, the world, nature and God. Yogasanas not only work to bring fitness and vigor to physical body, but also harness our will and emotions to improve our power of analysis, insight and vision. They calm the mind and steady the emotions, still not losing the sharpness of intellect, which is the key to human progress. The science of yoga is dedicated in helping people to change their personalities and life styles. The word pranayama is formed by two words i.e. PRANA and AYAMA. Prana means a subtle life force, which provides energy to different organs (including mind) and also controls many vital life process (e.g. circulation, respiration etc.) Ayama signifies the voluntary effort to control and direct this Prana. Breathing is one of the vital activities governed by Prana on a gross level. This is the only Pranic activity available to us, which can be regulated voluntarily. Secondly, this system (Pranic activity) is linked with the nervous system (based on the mental activity) on one hand and the mind (Consciousness) on the other. Yoga has taken best advantage of this situation, considering that the mind could be controlled effectively with the voluntary regulation over breathing. Pranayama is more important because it produces deeper effects as far as the physique is concerned. The effects of



asana are superficial in nature whereas the pranayama is deeper as far as the outcomes are concerned. In simple words it could be said that asana are more linked with muscular system, whereas the pranayama is concerned with nervous systems of the body. It is a very important tool in yoga to quiet the mind.. Pranayama is many times mistaken as control of breathing, no doubt attention is given to the breathing process but it is modified in various ways. The control of supply of various level in the body is suggested by Pranayama AnulomVilom, BhasteikaKapalbhati which is described as one of the 'shuddikriya' are useful in day to day life. This increases the oxygen to the lungs during subsequent breathing capacity, but it can be experienced by the individual that the expiratory lasts for longer time than the inspiration thereby causing more efficient carbon dioxide moving out from the body. Soccer, also known as association soccer or football, sport in which groups of eleven players, the use of any part of their bodies except their arms and fingers, try to maneuver the ball into the opposing team goal. Only the goalkeeper is authorized to deal with the ball with hand or feet within the accomplish penalty area to save the goal. The team who scores more will declare as a winner. Football is one of the world-famous games in numbers of participants and spectators. Simple in its predominant guidelines and essential equipment, the game may be performed almost anywhere, from professional football playing fields (pitches) to gymnasiums, streets, school playgrounds, parks, or beaches (Alegi, Weil, Joy, Rollin, & Giulia Notti, 2019) The origin of Football can be traced to the pre-historic times. In India, Football was primarily devised as a way to develop the physical strength and speed in young men. .

Procedure

Forty Football players served as the subjects for the study. The age ranged from 18 to 23 years. The subjects were randomly assigned as experimental and control groups, each group consisted of twenty subjects. The requirement of the study was explained to all subjects. All the subjects voluntarily agreed to undergo the testing and training programs. The vital capacity was measured. Spirometer (Helios 401). The random group design was used for the study. Two groups were made of the subjects each comprising of 20 subjects. The subjects participated voluntarily in the study. Twenty subjects (N=20) were selected for experimental group and twenty (N=20) acted as control group. The study was conducted for a period of six weeks. Two groups comprising of 20 subjects each were formed i.e. experimental group and control group under supervision of experts. The data for vital capacity was collected twice, that is before the start of the study and after the six weeks of the final performance of the tests. All the scores were collected on the first day before teaching the pranayama to the experimental group and repeated after period of six weeks. To perform the vital capacity, the subject must first breathe in deeply to his full extent; the subject then places the transducer to the mouth and expels the air in their lungs as quickly as possible. Once all the air in the lungs has been expelled, the subject must breathe in as quickly as possible, still with the transducer to the mouth, until the lungs are full. In order to study, the effect of Pranayama on vital capacity't' ratio was applied a 0.05 levels of significance.



Findings

The data was examined by applying 't' ratio. 't' ratio was applied with regard to an experimental group and control group, as the random group design was employed in this study. The difference in the initial means of the group at time of pre-test was taken into account during the analysis of the post test difference between the means by the process of a application of 't' ratio where the final means were adjusted for difference in the initial means, tested for significance of differences. In order to determine the significant difference between experimental group and control group after administering the training treatment, the Pre and Post test scores are collected, the initial and final test score has been analyzed using 't' ratio. There was no significant difference in the initial and final means of vital capacity of subject control group as the obtained 't' value 1.022 at 0.05 level of confidence of the 19 degrees of freedom and value needed to be significant is 2.093. Thus the Pranayama training program has positive effect on vital capacity.

Conclusion

After analyzing the data it was found significant at 0.05 level of significance. The 't'-ratio stated that there is significant change in the Vital Capacity through the pranayama program of experimental group. The following conclusions may be drawn with in the limitation of the study.

- Pranayama were effective in bringing about significant improvement in the Vital Capacity.
- No changes were observed in the control group of the study.



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