



## Immediate Effect of Kapalbhati and Anuloma Viloma Pranayama on the Shooting Ability of Basketball Players

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### ABSTRACT

**Aim:-**The purpose of the study was to investigate the immediate effect of kapalbhati and anuloma-viloma pranayama on the shooting ability of basketball players. **Material and Methods:-** 20 male basketball players aged between 17 to 28 years who have been participated in north zone basketball competition were selected as the subject for the study. The subject were randomly selected and did not take part in any routine exercise during the period of experiment, however their dietary habits as per their socio-economic status. To find out the effect of exercises, the pre and post data were collected before and after the experiment programme. **Statistical Process:-** The 3 point scale was used in order to obtain the collection of the data. For the statistical analysis 't' test was applied at 0.05 level of significance. **Results:-** On the basis of the finding of the study the following conclusion were drawn that there was a significant difference found in the shooting ability of the basketball players.

### KEYWORDS

Basketball shooting, Anuloma-Viloma, Kapalbhati.

### Introduction,

Yoga is one of the original concepts which today would be labelled as holistic. That means that the body is related to the breath, both are related to the brain; in turn this link with the mind, which is a part of consciousness. Yoga is the oldest system of personal development in the world, encompassing body, mind, and spirit. The ancient yogic has a profound understanding of man's essential and of what he needs to live in harmony with himself and his environment. Yoga is a scientific process to reach the ultimate state of perfection. However yoga is defined also to be the states of higher powers and potentialities and even as the ultimate state of silence.

Respiration is life. The process of respiration is first and last. In yoga great stress is laid upon correct breathing and breathing control. This is called "pranayama" which means extension of breathing.

**Kapalbhati** is a breathing technique used specifically for cleansing. "Kapala" means "skull" and "bhati" means that "which bring lightness". In this we deliberately breathe faster and at the same time use only abdominal breathing, that is diaphragmatic, not chest breathing. In kapalbhati the breath is short, rapid and strong. We use the lungs as a pump creating so much pressure as they expel the air that all the waste is removed from the air passages, from the lungs up through the nostrils.

**Anuloma – viloma** is also called the alternate nostril breathing technique. In this breathing technique, person inhale through one nostril and, retain the breathe and exhaled through another nostril in a ratio of 2:8:4: the left nostril is the path of nadi called Ida and right nostril is the path of nadi called Pingla.

Basketball is a game of intricate movement combined with great speed and accuracy. In basketball shooting is one of the primary skill of the game and requires a great deal of practice assisted by good models, scientifically based. Since players were accepted to shoot often in order to score. They developed a variety of shots which include the hook shots, set shots and lay-up shots.

### Objective:-

The purpose of the study was to assess the immediate effect of kapalbhati and anuloma-viloma pranayama on the shooting ability of the basketball players.

It was hypothesised that there would be no significant difference with the kapalbhati and anuloma viloma in the shooting ability of basketball players.

### Methodology:-

The study was delimited to the twenty male basketball players of CSJM University, who have been participated in north zone basketball competition belonging to the age group of 17 to 28 years. The subjects were right and left handed shooters. They were randomly selected and did not take part in any routine exercise during the period of experiment, however their dietary habits as per their socio-economic status. The pre and post test would be conducted in order to obtain the data. The scores of the subject in set shot were used as a criterion variable in the study. The performances of the subject were assessed by three judges however elements related to the accuracy of shooting were also added used in three point scale. Three points awarded in correct action and basket scored. Two points awarded in correct action but not scored. One point awarded in touches the ring. The subjects were made to take 3 shots before and after test administration from free throw area.

### Test Administration:-

The researcher has told the purpose of the study and gives a demonstration to the subject so may that they can understand clearly what they have to do to give their best performance. The subjects were made to take three shots from the free throw area continuously one by one and their performance was assessed by the three judges and the score given by the judges would be taken as the score of the subject. After that immediately the subjects were made to sit in the position of Padma asana and told to perform kapalbhati atleast 70 to 80 strokes in one set of kapalbhati. After completing this they were told to perform anuloma- viloma atleast for 2 minutes for once. With the continuation of testing process in the same way 20 repetition of kapalbhati and 20 repetitions of anuloma –viloma was conducted in alternate basis. After which the post test was administered the subject were again have to make three shots from free throw area and their performance will be assessed by the 3 judges and scores will be collected.

### Statistical analysis:-

To find out the effect of yogic exercises on the shooting ability of the basketball players 't' test was applied at 0.05 level of significance.

Finding and Results:-

Table no. 1  
Comparison of Means of pre test and post test of Shooting Performance

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't' Ratio
Pre-test	2.82	.36	.12	.21	0.75
Post-test	2.94	.44			

\*Significant at 0.05 level.

t.05 (19) =2.09

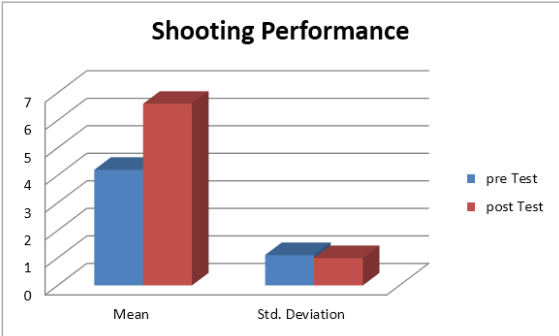
The mean value of Pre-test and Post-test of Standing Broad Jump is 2.82 and 2.94 respectively. Standard deviation value of pre-test and Post-test is 0.36 and 0.44 respectively. Value of 't' ratio is .75, this value is insignificant at 0.05 level. To be significant at 0.05 level, the value of 't' ratio should be greater than or equal to 2.09. It means that the random assignment to the subject was quite successful. The yogic exercises has their effect on the performance of the players.

Discussion of findings:-

It is evident from the finding that immediate yogic exercises have significantly increased the level of shooting in basketball players. This may be attributed to the fact that random assignment of kapalbhati and anuloma-viloma method of exercises might be the most effective exercises to increase the performance level of basketball players. Might be the players pre learnt skill and their daily routine exercises could also affect their performances this was considered as the major limitation of the study. This might be attributed to the fact that the diet and other socio economic factor could also influence the performance of the subject was considered as the limitation of the study.

Conclusion:-

It was concluded that the finding of this study can be used in improving or enhance the shooting abilities of the basketball player.



Graph no. 1-Shows the pre-test and post-test mean of shooting performance

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