

## Effects of Yogic Practices (Meditation) in Shooting

<sup>a</sup>Akhilesh Singh, <sup>b</sup>Madan Singh Rathore

<sup>a</sup>M.P.Ed Student, LNIPE, Gwalior, M.P, <sup>b</sup>Asst.Prof., LNIPE Gwalior, M.P, India

### Abstract

This study examined the effect of meditation techniques on the Shooting and it helps to increase the scoring performance in shooting, and the shooters were purposively selected from Lakshmbai National Institute of Physical Education, Gwalior, age ranging from 18 years to 22 years. To find out the effect of six weeks training program of yogic practices in Shooting the Paired t-test was used by means of SPSS software package. The level of significance was set at 0.01. Collegiate athletes (n = 10) completed two study visits, Pre-test and post-test. After pre-test of scoring performance of all the 10 Shooters, they were provided the 3-meditation Practices regularly for six weeks continuously without any gap, 3-days in a week from Monday to Wednesday. After the six weeks schedule the participants again called for the Post-test. And again we had tested the same things, scoring performance of all the 10 Shooters as we had done in Pre-test, their score from the 600 points(60 shots) based on this the test was held and result was recorded accordingly. The post-test was done on the very next day without a single gap of a day, when the six weeks completed from which the researcher get the actual data of his research. On the day of Post-test, participants were informed the timing in advance to come in shooting range for it. However, 100% of the participants were increased their score. So the conclusion is that if we provide the best yogic practices to the shooters regularly, so it will be 100% beneficial to the shooters to increase their scoring performance and definitely to enhance their concentration power too. So the Hypothesis is rejected, but it may be concluded that Yogic practices(meditation techniques) is very effected to increase the Shooting performance as well as their concentration power.

**KEYWORDS:** Yogic Practices, Meditation, Shooting, Concentration.

### Introduction:

Yoga is a group of physical, mental, and spiritual practices or disciplines which originated in ancient India. Yoga is one of the six orthodox schools of Hindu philosophical traditions. There is a broad variety of yoga schools, practices, and goals in Hinduism, Buddhism, and Jainism. The term "yoga" in the Western world often denotes a modern form of Hatha yoga, consisting largely of the postures called asanas. Shooting as a sport is considered as one of the sports that can be taken up by any individual or participant regardless of age and sex for recreation and professional involvement. The shooting sports include those competitive sports involving tests of proficiency (accuracy and speed) using various types of guns such as firearms and air guns. The shooting game requires great concentration skills, in order to acquire precision while shooting the target. In this work, investigated pistol shooting and the psychophysiological factors affect the accuracy with which a target may be hit. Pistol shooting is a static activity requiring a strict control of body segments and posture to align the rear sight aperture and the foresight through proprioceptive feedback and gaze

fixation either on the target directly or between the target and the weapon and, therefore, to increase precision of the shot. Air pistol shooting is an Olympic sport requiring extreme mental concentration and movement precision for success. The shooters in standing position have to aim at a target consisting of concentric rings each one corresponding to a score. In this study, we investigated both rifle shooting and pistol shooting and some yogic practices of meditation that affect the shooting performance. A shooting sport is a competitive sport involving tests of proficiency (accuracy and speed) using various types of guns, such as fire arms and air guns. Shooting sports are categorized by the type of firearm, target, concentration at one point and distance at which the targets are shot. To achieve the ultimate goal, a perfect shot, besides a "good eye", "fully concentrated to the target only" and "steady hand". It is necessary to meet a wide range of requirements to provide and secure the conditions for satisfactory shot delivery. This will lead to the conclusion that the shooting position and fully concentration is the most important roles in building a successful shooter. While a number of studies have examined the effect of yogic practices related to shooting performance to our knowledge, this is the first study to determine the efficiency of different yogic practices that is meditation techniques which helps to increase the concentration power, like- Trataka, Mantra Yoga(music yoga) and Zazen(Breathing concentration) to shooters. The visual system plays a critical role in sports performance, as it does in the performance of virtually all perceptual-motor skills. These all meditation techniques is very useful to increase the concentration power. As the name suggests, this guided meditation technique called 'Tratak' begins with fixing the gaze at one single point for a certain period of time. The mind is subtle and difficult to catch, however gaze can be fixed at a point, and eventually the mind too gets focussed. There is a subtle connection between your body movements and cognitive power of the mind. As we are able to cease the restlessness of eyes seeking something or the other, by fixing its gaze, the restlessness of mind too comes to a halt. Chanting also improves one's memory and power of concentration, so crucial if one wants to be an achiever. Although in breathing concentration there are hours-long classes devoted to many different kinds of breath work, some of which even add group therapy sessions to the lineup, and there are hundreds of pranayama classes in yoga studies all over the world, focused breathing at its most basic is incredibly accessible. We have to do is count and breathe! It takes only a few minutes, requires no special equipment, and can be done sitting in your desk chair. When we consciously relax and breathe more deeply and purposefully, we're short-circuiting that negative loop and giving our bodies what we need to focus. And all this helps to increase our concentration power so much. When we focus on our breathing it means automatically we are concentrating in our breathing and our mind is fully concentrated at one point only, and from this it helps to concentrate in one target at the time of shooting, because shooting is all about the concentration. As much as our concentration will be perfect, so automatically the performance will be positive.

**Methods:**

Ten subjects have been spotted out by the scholar for the six weeks of training schedule. All the subject have given their consent to be the part of this study. They were briefed about the training programme. Their pre training score ware obtained by giving 60 shots

to each participant and the performance was recorded. The pre training scores are shown in Table no.1.

**TABLE NO. 1**

S.NO	SUBJECTS	PRE-SCORE / 600
1	A	520
2	B	515
3	C	560
4	D	522
5	E	569
6	F	510
7	G	510
8	H	518
9	I	523
10	J	509

Later on the subjects were imparted training through the indigenous and simple meditation training tools i.e. a) Trataka. b) Mantra Yoga(music yoga). and c) Zazen(Breathing concentration). For three days of each week all the subjects underwent training through above mentioned yogic practices. The whole training schedule is given below:-

**1<sup>st</sup> & 2<sup>nd</sup> Week  
Training plan**

Name of Exercises	Total no. of Repetitions	Duration for performing one repetition	Recovery time after each repetition
Trataka	05	01-02 minutes	01 minute
Mantra Yoga(Music Yoga).	03	08-10 minutes	02 minutes
Zazen(Breathing concentration).	03	08-10 minutes	05 minutes

**3<sup>rd</sup> & 4<sup>th</sup> week  
Training plan**

<b>Name of Exercises</b>	<b>Total no. of Repetitions</b>	<b>Duration for performing one repetition</b>	<b>Recovery time after each repetition</b>
Trataka	07	02-03 minutes	01 minute
Mantra Yoga(Music Yoga).	05	10-12 minutes	02 minutes
Zazen(Breathing concentration).	05	10-12 minutes	05 minutes

**5<sup>th</sup> & 6<sup>th</sup> week  
Training plan**

<b>Name of Exercises</b>	<b>Total no. of Repetitions</b>	<b>Duration for performing one repetition</b>	<b>Recovery time after each repetition</b>
Trataka	10	03-04 minutes	01 minute
Mantra Yoga(Music Yoga).	07	12-15 minutes	02 minutes
Zazen(Breathing concentration).	07	12-15 minutes	05 minutes

After this six weeks of training the post-test was calculated. The scores of post-test are shown in Table no.2.

**TABLE NO. 2**

<b>S.NO</b>	<b>SUBJECTS</b>	<b>SCORE / 600</b>
1	A	531
2	B	540
3	C	567
4	D	533
5	E	578
6	F	518
7	G	516

8	H	531
9	I	537
10	J	526

In order to find out the effects of Yogic Practices(meditation techniques) in Shooting, the data was analyzed by using “Descriptive Statistics and Paired t-test” at 0.01 level of significance.

**Results:**

For the chosen yogic practices(meditation techniques) for shooting performance, the data were subjected to Descriptive and Paired t-test.

The data was subjected to Descriptive Statistics to find out the mean difference of shooting performance by giving the different meditation practices(Trataka, Mantra Yoga & Zazen{Breathing Exercises}). The Descriptive statistics are shown in Table No. 3. The mean of Pre-test for shooting performance was 525.6000 and the mean difference of Post-test for shooting performance is 537.7000.

**TABLE NO. 3**

The Descriptive Statistics of the effects of yogic practices(meditation) in shooting:

Shooting Performance		N	Mean	Std. Deviation	Std. Error Mean
	Pre	10	525.6000	21.21425	6.70854
Post	10	537.7000	19.98916	6.32113	

Table No. 3 shows that, data collected on Ten Shooters, the mean of pre-test was 525.6000, std. Deviation was 21.21425 and std. error mean was 6.70854. for post-test the mean was 537.7000, std. Deviation was 19.98916 and std. error mean was 6.32113.

**TABLE NO. 4  
Paired Samples Test**

Pre-Post	N	Mean	Std.Deviation	t	Df	Sig.
	10	-12.10000	5.64604	-6.777	9	.000

\*Significant level = 0.01

Table No. 4 shows that there is a significant difference between pre and post- test of yogic practice(meditation techniques) for shooting; t-value is -6.777; the p-value is .000 < .01. So the null hypothesis is rejected. The graphical representation of analysis is presented in **Fig.1**.

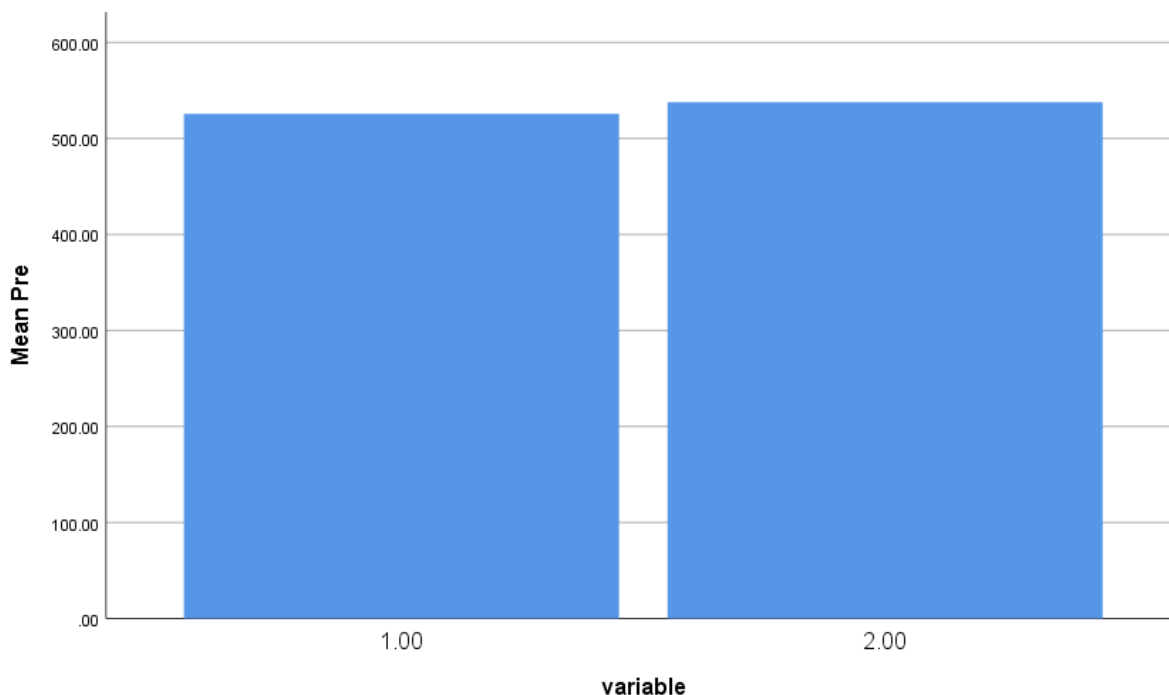
**FIGURE-1**

Figure-1 shows that a comparative mean between pre and post-test meditation techniques effect on shooting players. 1.00 is indicating as pre-test and 2.00 is indicating as post-test.

#### **Discussion and Conclusions:**

The purpose of the study was to analyze the effects of yogic practices(meditation techniques) in shooting. Six weeks of training programme was imparted to all the shooters. After the completion of the training, post data was collected on the similar conditions. Data were analyzed to find out the significant effect of training. Paired t-test statistical technique was used to analysis the significant effect and the level of significance was set 0.01 level for testing the hypothesis. In addition, descriptive statistics such as mean and standard deviation was calculated. SPSS 20.0 software was used for analysis purpose. Analysis of the data reveals that there was a significant difference in both pre-test and post-test. So the null hypothesis is rejected but the meditation techniques which should be given to the shooters, that is very effective to increase the shooters performance. Because from these particular three yogic practices(meditation techniques), the all Ten shooters had increased their performance. No one had decreased the score, whatever they had given in pre-test they all had increased in post-test. The reason behind this is that whatever the researcher had decided the meditation techniques, that all are very beneficial for the shooters, because it helps to increase our concentration power. And due to concentration power they all had increased their performance of shooting. So the null hypothesis is rejected at 0.01level, but the effects of yogic practices(meditation techniques) has been found effective in shooting performance.

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