

## A STUDY ON EFFECT OF YOGA AND CYCLIC MEDITATION ON SELECTED PSYCHOLOGICAL VARIABLES AMONG MAJOR GAMES AND MARTIAL ARTS

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We are living in the cybernetic world where everything can be controlled by buttons and figures. Men has created a good number of highly sophisticated machines as his slaves. But he faces difficulty to control the thought process of his own mind. Controlling the mind is not as easy as controlling the body. There is no exception for sports person too. Eventually as the days go by, the intensity of competition is getting more and tougher and the sports arena has become a battlefield for the sports persons. Hence, no competition leaves the sports persons without creating mental turmoil in their minds, as a matter of fact steadiness and the presence of mind are two essential prerequisites for excellence in performance in sports and games. Hence the present study was intended to find out how the application of the ancient wisdom of *Vedas* and Yoga could be helpful to the sports persons. In the pursuit of excellence in sports, the great hurdle that a sports person should overcome is his or her own functions of the mind. This investigation focuses on the effect training of the ancient wisdom of Yoga based Cyclic Meditation on sports persons for better performances in sports competitions. Sports persons should learn how to relax and harmonize their body and mind to be successful in the field of competition.

### Objectives of the study

- 1) Find out the effect of training on Yoga and Cyclic meditation among sports persons of two major games Football and Hockey and two martial arts Judo and Boxing
- 2) Compare the Cognitive Anxiety, Somatic Anxiety, Self-confidence of different sports persons
- 3) Compare training effect of Yoga and cyclic meditation among different sports persons of major games and martial arts.

### Yoga and Cyclic Meditation programme

Cyclic Meditation is a meditative programme based of *Taittiriya* and *Mandukya Upanishads* and consisting of a combination of successive stimulation and relaxation techniques in order to solve the complex problems of the mind ( Nagendra 2003). It consists of combination of successive stimulations and relaxation techniques . Seven *asanas* such as Tadasana, Ardhakati Chakrasana, Pada Hastasana, Ardha Chakrasana, Vajrasana, Sasankasana and Ustrasana are used for stimulation and three relaxation programme such as Instant Relaxation Technique (IRT), Quick Relaxation Technique (QRT), Deep Relaxation Technique (DRT) are used for relaxation.

### Selection of variables and tools

The following psychological variables were selected for the study and standard questionnaire were used for collecting the data. Competition State Anxiety Inventory (CSAI-2) developed by Martens et.al. were used to measure the psychological variables and standard medical procedures were used to measure the physiological variables. The selected variables and their respective tests and instruments used are presented in table 1.

**Table-1**  
**LIST OF VARIABLES AND THEIR RESPECTIVE TESTS AND TOOLS**

Sl. No.	Variable	Test and Instruments Used
<b>Psychological Variables</b>		
1	Cognitive Anxiety	CSAI-2 Questionnaire
2	Somatic Anxiety	CSAI-2 Questionnaire
3	Self Confidence	CSAI-2 Questionnaire

### **Hypothesis**

On the basis of review of the related literature, expert opinion and the scholar's own understanding of the problem, the following hypotheses were formulated for the present study.

- 1) There will not be any significant difference among pretest means of selected psychological variables of Cognitive Anxiety, Somatic Anxiety, Self Confidence, among sports persons of Football, Hockey, Judo and Boxing.
- 2) There will not be any significant difference between pre and post-test means of selected psychological variables of Cognitive Anxiety, Somatic Anxiety, Self-Confidence among sports persons of Football, Hockey, Judo and Boxing.
- 3) There will not be any significant difference among post-test means of selected psychological variables of Cognitive Anxiety, Somatic Anxiety, Self Confidence, among sports persons of Football, Hockey, Judo and Boxing.

### **Methodology**

The purpose of the study was to find out the effect of cyclic meditation techniques on selected psychological variables among sports persons. Sixty University level sports persons representing two major games namely Football and Hockey and two Martial arts namely Judo and Boxing were selected for the study. They were given training on Yoga and Cyclic meditation. The age of the subjects ranged between 17 to 25 years. The variables selected for the study were cognitive anxiety, somatic anxiety

### **Training Schedule and Collection of Data**

The four experimental groups were given training on yoga and cyclic meditation for duration of twelve weeks with three sessions in a week. The data on selected variables were collected as a pre-test before the commencement of the experimental training programme and as a post-test after the completion of the training programme.

### **Analysis of Data and Results of the study**

The pre and post test means of the selected psychological variables on cognitive anxiety, somatic anxiety, self-confidence, instrumental aggression and hostile aggression were statistically analyzed by SPSS software. The statistical tool Analysis of Variance was used to compare the means of various experiment groups. Paired t test was used to find out the difference in pre and post-test means of various variables. The LSD post hoc test was used, wherever the F-ratio was found to be significant. The level of confidence chosen for the study was 0.05.

**Table-2**  
**ONE-WAY ANOVA ON PRE TEST MEANS OF COGNITIVE ANXIETY**  
**AMONG DIFFERENT SPORTS PERSONS**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.383	3	1.794	.735	.536
Within Groups	136.800	56	2.443		

Table 2 of One-way Anova on pre-test means of cognitive anxiety shows insignificant value of 0.536 which is higher than the level of significant fixed at 0.05. Hence there was no significant difference exist in cognitive anxiety among various experiment group.

**Table-3**  
**ONE-WAY ANOVA ON PRE TEST MEANS OF SOMATIC ANXIETY AMONG**  
**DIFFERENT SPORTS PERSONS**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	10.133	3	3.378	1.503	.224
Within Groups	125.867	56	2.248		

Table 3 of One-way Anova on pre-test means of somatic anxiety shows insignificant value of 1.503 which is higher than the level of significant fixed at 0.05. Hence there was no significant difference exist in pre-test means of somatic anxiety among various experiment group.

**Table-4**  
**ONE-WAY ANOVA ON PRE TEST MEANS OF SELF CONFIDENCE AMONG**  
**DIFFERENT SPORTS PERSONS**

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.667	3	3.556	1.543	.214
Within Groups	129.067	56	2.305		

Table 4 of One-way Anova on pre-test means of self-confidence shows insignificant value of 1.543 which is higher than the level of significant fixed at 0.05. Hence there was no significant difference exist in pre-test means of self confidence among various experiment group.

**TABLE -5**  
**PAIRED SAMPLE T TEST ON PRE AND POST TEST MEANS OF**  
**COGNITIVE ANXIETY AMONG DIFFERENT SPORTS PERSONS**

COGNITIVE ANXIETY	Mean	N	Std. Deviation	t-value	Sig.
PRE	27.22	60	1.552	11.349	>0.0001**
POST	24.60	60	1.343		

Table 5 of Paired sample t-test done on cognitive anxiety shows highly significant t-value of 11.349 which is higher than the level of significant fixed at 0.05. Hence there was significant difference exist in pre and post-test means of cognitive anxiety among various experiment group.

**TABLE-6**  
**PAIRED SAMPLE T TEST ON PRE AND POST TEST MEANS OF SOMATIC**  
**ANXIETY AMONG DIFFERENT SPORTS PERSONS**

SOMATIC ANXIETY	Mean	N	Std. Deviation	t-value	Sig.
PRE	28.00	60	1.518	15.257	>0.0001**
POST	24.97	60	1.248		

Table 6 of Paired sample t-test done on somatic anxiety shows highly significant t-value of 15.257 which is higher than the level of significant fixed at 0.05. Hence there was significant difference exist in pre and post-test means of somatic anxiety among various experiment group.

**TABLE-7**  
**PAIRED SAMPLE T TEST ON PRE AND POST TEST MEANS OF SELF**  
**CONFIDENCE AMONG DIFFERENT SPORTS PERSONS**

SELF CONFIDENCE	Mean	N	Std. Deviation	t-value	Sig.
PRE	28.27	60	1.539	12.056	>0.0001**
POST	30.43	60	1.731		

Table 7 of Paired sample t-test done on self-confidence shows highly significant t-value of 12.056 which is higher than the level of significant fixed at 0.05. Hence there was significant difference exist in pre and post-test means of self-confidence among various experiment group.

**TABLE-8**  
**DESCRIPTIVE STATISTICS ON EFFECTIVENESS OF COGNITIVE ANXIETY AMONG DIFFERENT SPORTS PERSONS**

GAME	N	Mean	Std. Deviation
FOOTBALL	15	2.2000	1.47358
HOCKEY	15	3.0667	1.66762
JUDO	15	2.5333	2.19957
BOXING	15	2.6667	1.79947

Table -8 of descriptive statistics done on cognitive anxiety shows that the sports persons representing hockey has higher cognitive anxiety when comparing to other sports persons of Football, Judo and Boxing.

**TABLE-9**  
**DESCRIPTIVE STATISTICS ON EFFECTIVENESS OF SOMATIC ANXIETY AMONG DIFFERENT SPORTS PERSONS**

GAME	N	Mean	Std. Deviation
FOOTBALL	15	2.8000	.70373
HOCKEY	15	2.9333	1.12122
JUDO	15	3.4667	1.44749
BOXING	15	2.9333	1.92230

Table -9 of descriptive statistics done on somatic anxiety shows that the sports persons representing Judo has higher Somatic anxiety when comparing to other sports persons of Football, Hockey and Boxing.

**TABLE-10**  
**DESCRIPTIVE STATISTICS ON EFFECTIVENESS OF SELF CONFIDENCE AMONG DIFFERENT SPORTS PERSONS**

GAME	N	Mean	Std. Deviation
FOOTBALL	15	-1.7333	.70373
HOCKEY	15	-2.4000	1.12122
JUDO	15	-2.6667	1.44749
BOXING	15	-1.8667	1.92230

Table -10 of descriptive statistics done on self-confidence shows that the sports persons representing hockey has higher cognitive anxiety when comparing to other sports persons of Football, Judo and Boxing.

**TABLE-11**  
**ONE WAY ANOVA ON EFFECTIVENESS OF PRE TO POST MEANS OF**  
**COGNITIVE ANXIETY**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.783	3	1.928	.592	.623
Within Groups	182.400	56	3.257		
Total	188.183	59			

Table -11 of One way Anova on Effectiveness of pre to post means of Cognitive anxiety shows insignificant value of .592. So there was no significant difference exists among the experiment groups on Cognitive anxiety.

**TABLE-12**  
**ONE WAY ANOVA ON EFFECTIVENESS OF PRE TO POST MEANS OF**  
**SOMATIC ANXIETY**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.933	3	1.311	.540	.657
Within Groups	136.000	56	2.429		
Total	139.933	59			

Table -12 of One way Anova on Effectiveness of pre to post means of Somatic anxiety shows insignificant value of .540. So there was no significant difference exists among the experiment groups on Somatic anxiety.

**TABLE-13**  
**ONE WAY ANOVA ON EFFECTIVENESS PRE TO POST MEANS OF**  
**SELF CONFIDENCE**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	8.733	3	2.911	1.544	.213
Within Groups	105.600	56	1.886		
Total	114.333	59			

Table -13 of One way Anova on Effectiveness of pre to post means of Self-confidence shows insignificant value of 1.544. So there was no significant difference exists among the experiment groups on Self-confidence.

### **Result and Conclusions**

On the basis of the results of the study the following conclusions were drawn. Training of yoga and cyclic meditation showed significant improvement and change from pre to post-test means on selected psychological variables namely cognitive anxiety, somatic

anxiety, and self-confidence among all sports persons representing Football, Hockey, Judo and Boxing. It was also found that though, the yoga and cyclic meditation training were effective to reduce cognitive anxiety and somatic anxiety and increase the self-confidence of all sports persons representing Football, Hockey, Judo and Boxing, there were no significant difference exist among various experiment groups. It was also found out that there were no significant difference exist in any of the selected variables between major games and martial arts chosen for the study. This study was useful to found out the effect of Cyclic meditation for sports persons for reducing the anxiety and improving the self-confidence. Hence it is recommended that Cyclic meditation programme can be incorporated in the training schedule for reducing the stress and tension of the sports persons so as to improve the performance.

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