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## Effectiveness of psychological relaxation technique on the somatic state anxiety of athlete

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### Abstract

The reason for the present investigation was to discover the adequacy Psychological Relaxation Technique on the somatic state Anxiety of Athlete. The investigation was directed on two hundred (N=200) university level players of individual games. These 200 athlete were partitioned into five groups, 40 in each group of Galvanic Skin Response, Electromyography, Autogenic Training and PMR and Yog Nidra separately. All are of 18 to 28 years old to discover the adequacy of Psychological Relaxation Technique on somatic state Anxiety level of Athletes. Right off the bat, all subjects were given an educated agree letter to sign to be a subject for the present examination with their own will. The analyst was request that the player fill The Competitive State Anxiety Inventory-2 (CSAI-2) by Rainer Marten survey and in the wake of directing the test the examiner gathered pre score of somatic state anxiety. These five distinct gatherings were presented to chose Psychological Relaxation Technique. At that point to watch the impact of these unwinding systems ANCOVA is connected trailed by match astute correlation with see the slightest critical contrast. The level of signifiante pick in to test the speculations was 0.05,  $P < 0.05$ . Results GSR and Electromyography demonstrated the huge contrast in contrast with other relaxation techniques.

**Keywords:** Psychological relaxation technique, somatic state anxiety, athlete

### Introduction

Aggressive nervousness should be found in two estimations; trademark and satiate tension. Satiated nervousness may be conceptualized as a brief enthusiastic state or condition of human animal that movements in compel and wavers additional minutes. This condition is portrayed by subjective, purposely observed opinion strain, second thought and activation of the autonomic tactile frameworks. It is a provoke or "right now" enthusiastic response that can change from moment or situation to the accompanying. Trademark nervousness is imparted in a man's character and the individual with this issue tends to see the world as an unsafe and undermining place. Most diversions clinicians and tip top contenders, in any case, assume that making sense of how to hang free empowers contenders to influence a goliath to walk towards perfect enjoyment and execution. As our uneasiness extends so does our execution up to point. We ought to be eager as of sufficiently late to twist up observably empowered and impelled about our execution. A great deal of nervousness, in any case, interferes with our ability to focus authentically at work waiting be finished. Finding the perfect uneasiness point is extraordinary to each individual and depends upon the diversions in which one is incorporated (e.g.: weight lifting demands higher tension levels for perfect execution than bows and bolts), this demonstrates the contenders require the ability to deal with their nervousness to their own optimal point. There are a couple of courses in which unwinding systems getting ready can benefit a contender's execution. Immediately, unwinding methods procedure assists with making expanded affectability to your body. A couple of contenders encounter issues in perceiving what exercises are under consider control. Unwinding systems planning empowers them to twist up clearly more aware of their body and furthermore recoup a sentiment control over basic physiological acts, for instance, unwinding. Likewise, an unwinding strategy considers the diminishing of nervousness. When you are extremely anxious, unwinding systems can encourages you in finishing your optimal level of tension. Strong strain runs with nervousness or over energy. It is hard to be stressed and free meanwhile. From now on, unwinding systems serves to reduces nervousness level by diminishing the solid strain; you

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can in like manner spare essentialness that is favored spent in one's amusements over on misgiving. Thirdly, unwinding procedures can empower recovery from exhaustion and propel the start of rest for the people who experience burden snoozing going before and following contention. It in like manner empowers recovery from harm by diminishing torment related with strain. Fourthly, an unwinding system assists with clearing the mind and supporting obsession for physical or mental practice. That is the reason most systems for daze, thought, or imagery are gone before by course of action of dares to activate a state of unwinding procedures. Clearing the mind enlarges the ampleness of these systems. An unwinding procedure is one of the urgent human needs in its own specific way as basic as rest. Everyone needs visit times of rest and distraction so he can return to his step by step assignments resuscitated. The constructive use of the time available for unwinding methods in any case is a workmanship only one out of every odd individual has aced. Real unwinding strategies incorporate both the mind and the body. It can't be expert basically by being inert or killing time in some futile development. Or maybe, unwinding methods should give a beguiling change from typical activity.

### Selection of Subjects

Two hundred university level players of individual sports (judo, track and field, wrestling, boxing and archery) were recruited as subjects from the different colleges of Punjabi University. All subjects were given an informed consent letter to sign to be a subject for the present study with their own will. The researcher asked the player to fill the sports competition anxiety test (SCAT) questionnaire to observe of level anxiety. After that the researcher had randomly divided the subject into five different experimental groups. These five different groups will be exposing to selected psychological relaxation techniques i.e Galvanic Skin Response, Electromyography, Autogenic Training and PMR and Yog Nidra respectively.

### Selection of Variables

Keeping the specific purpose of the study in mind, the following variables were selected.

#### Independent variables

- Galvanic skin responses (GSR) Biofeedback
- Electromyography biofeedback
- Autogenic training
- Progressive muscle relaxation
- Yog Nidra

#### Dependent variable

- Cognitive State Anxiety

### Collection of Data

The data were collected two times in the interval of 6 weeks of selected relaxation techniques and before the competition. Observation for the test was collected prior to competition and treatment. After six weeks experimental treatment observation were collected at the end of treatment and before

competition. Important instruction was given to the subject before administration of test.

### Statistical Procedure

In order to find out the significant mean difference of experimental group Analysis of co-variance (ANCOVA) will be used and follow up test will be conducted to evaluate pair wise difference among the adjusted means for different training groups.

### Analysis of somatic state anxiety

This section includes the analysis of Somatic State Anxiety while applying selected Psychological Relaxation Techniques.

**Table 1:** Mean Value and Adjusted Mean Score of Somatic State Anxiety while applying selected Psychological Relaxation Techniques.

Techniques	N	Pre mean± SD	Post Mean ± SD	Adjusted mean
GSR	40	33.00± 1.50	20.25±1.23	20.24
EMG	40	33.52± 1.58	21.90±2.11	21.93
AT	40	32.85± 1.40	21.77±2.47	21.76
PMR	40	33.22± 1.43	21.92±2.40	21.92
YN	40	32.90± 1.51	21.55±2.27	21.91

Table 1 indicate pre-mean± SD, post ± SD and adjusted mean scores after eliminating the effect of covariate of selected relaxation techniques groups. In Galvanic skin responses group the pre mean, post mean along with standard deviation and adjusted mean of somatic state anxiety was 33.00± 1.50, 20.25±1.23 and 20.24 respectively. Whereas in electromyography group the pre mean, post mean along with standard deviation and adjusted mean of somatic state anxiety was 33.52± 1.58, 21.90±2.11 and 21.93 respectively. Further in autogenic training group the pre mean post mean along with standard deviation and adjusted mean of somatic state anxiety was 32.85± 1.40, 21.77±2.47 and 21.76 respectively. Whereas in progressive muscle relaxation group the pre mean, post mean along with standard deviation and adjusted mean of somatic state anxiety was 33.22± 1.43, 21.92±2.40 and 21.92 respectively. Similarly, in yog nidra group the pre-mean, post mean along with standard deviation and adjusted mean of somatic state anxiety was 32.90± 1.51, 21.55± 2.27 and 21.91 respectively.

**Table 2:** ANCOVA table for the Scores on Somatic State Anxiety while applying selected Psychological Relaxation Techniques.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Treatment	86.201	4	21.550	4.447	.002*
Error	940.197	194	4.846		
Total	93908.000	200			

\*Significant at .05 Level

Table 2 reveal that the result of ANCOVA shows significant effect of selected psychological relaxation techniques on cognitive state anxiety as calculated  $F_{.05}(4,194) = 4.447$  greater than tabulated  $F$ -value = 2.42 and  $p < 0.05$  (see Table 2).

**Table 3:** Pairwise Comparisons of selected Psychological Relaxation Techniques on Somatic State Anxiety.

(I) Name of treatment	(J) Name of treatment	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for Difference <sup>b</sup>	
					Lower Bound	Upper Bound
GSR	EMG	-1.688*	.495	.001	-2.665	-.711
	AT	-1.514*	.493	.002	-2.486	-.543
	PMR	-1.673*	.493	.001	-2.647	-.700
	YN	-1.668*	.492	.001	-2.639	-.697
EMG	AT	.174	.497	.727	-.807	1.155
	PMR	.014	.493	.977	-.957	.986
	YN	.020	.497	.968	-.960	1.000
AT	PMR	-.159	.495	.748	-1.135	.817
	YN	-.154	.492	.755	-1.125	.817
	YN	.006	.494	.991	-.969	.981

\*The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

The table 3 - it shows significant difference of somatic state anxiety between the paired means i.e Galvanic skin response and Electromyography, Autogenic training, Progressive muscle relaxation and Yog Nidra. Statistically highly Significant difference occurred between galvanic response and electromyography is (MD= -1.688 and  $p<0.05$ ), Autogenic training (MD= -1.514 and  $p<0.05$ ) Progressive muscle relaxation (MD= -1.673 and  $p<0.05$ ), Yog Nidra (MD= -1.688 and  $p<0.05$ ). Similarly, mean difference of somatic state anxiety between Electromyography and Autogenic training is significant i.e (MD= -.456 and  $p<0.05$ ), Electromyography and Progressive muscle relaxation and Yog Nidra were significant with (MD= .014,.020 and  $p<0.05$ ) respectively. The mean difference of somatic state anxiety between Autogenic training and Progressive muscle relaxation, Yog Nidra were significant with the value obtained (MD= -.159,-.154 and  $p<0.05$ ) respectively. Further, mean difference of somatic state anxiety between Progressive muscle relaxation and Yog Nidra obtained (MD= .006 and  $p<0.05$ ) which shows that there is low significant difference.

### Discussion of Findings

The study was conducted to find out the effects of relaxation techniques on the somatic state anxiety of athletes and to find out the best and suitable technique to reduce somatic State anxiety.

when effectiveness of galvanic skin response, electromyography, autogenic training, progressive muscles relaxation and yog nidra on the somatic state anxiety was observed with the application of Analysis of Co-variance (ANCOVA), it showed that there is significant effect was found in psychological relaxation techniques on cognitive state anxiety as calculated  $F_{.05}(4,194) = 4.447$  greater than tabulated  $F$ -value = 2.42 and  $p<0.05$ .

But while application of Post-hoc test it shows significant difference of somatic state anxiety between the paired means i.e Galvanic skin response and Electromyography, Autogenic training, Progressive muscle relaxation and Yog Nidra. Statistically highly Significant difference occurred between galvanic response and electromyography is (MD= -1.688 and  $p<0.05$ ), Autogenic training (MD= -1.514 and  $p<0.05$ ) Progressive muscle relaxation (MD= -1.673 and  $p<0.05$ ), Yog Nidra (MD= -1.688 and  $p<0.05$ ). Similarly, mean difference of somatic state anxiety between Electromyography and Autogenic training is significant i.e (MD= -.456 and  $p<0.05$ ), Electromyography and Progressive muscle relaxation and Yog Nidra were significant with (MD= .014, .020 and  $p<0.05$ ) respectively. The mean difference of somatic state anxiety between Autogenic training and Progressive muscle

relaxation, Yog Nidra were significant with the value obtained (MD= -.159,-.154 and  $p<0.05$ ) respectively. Further, mean difference of cognitive state anxiety between Progressive muscle relaxation and Yog Nidra obtained (MD= .006 and  $p<0.05$ ) which shows that there is low significant difference. Hence we can conclude with this that galvanic skin response is the effective relaxation technique to manage somatic state anxiety.

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