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**Dr. Sukhdev Singh**  
Principal, SGHS Khalsa College  
Panjokhra Sahib (Ambala)  
Punjab, India

## Comparative analysis of progressive muscular relaxation training and Yog Nidra training effect on anxiety of athletes

**Dr. Sukhdev Singh**

### Abstract

The present study was designed to determine the comparative analysis of progressive muscular relaxation training and yog nidra training effect on anxiety of athletes. The study was conducted on thirty (N= 30) university level players of individual sports and team sports (judo, track and field, handball, cycling, baseball, softball, badminton, korfbal, basketball and archery) were recruited as subjects from the different colleges of Punjabi University Patiala. All subjects were given an informed consent letter to sign to be a subject for the present study with their own will. The researcher was ask the player to fill the sports competition anxiety test (SCAT) questionnaire and after conducting the test the investigator will only select thirty high and low level anxiety players. After that the researcher were divide the subject in two different groups. These two different groups were be exposing to selected psychological relaxation techniques. To effect mean, standard deviation and paired t-test were employed. The level of significance choose in to test the hypotheses was 0.05,  $P < 0.05$ . Results of the study explicated statistically that there was significant difference in Progressive Muscles Relaxation. However, insignificant difference was found in Yog Nidra of athletes.

**Keywords:** Progressive Muscles Relaxation, Yog Nidra, Anxiety and Athlete

### Introduction

A sport is a psycho - social activity. It has both psychological and social dimensions, besides physical, physiological and technical aspects. Man's interest in sports is found in the all societies of the world. Most of the nations' share a common interest in the sports competition, especially at certain time during the Olympic Games where people from all nations focus their attention on the drama of competition. But the quality of the participation of the athlete and sportsmen is determined by their psychological factors. In this modern era of competition the psychological preparation of a team is as on the scientific lines. The teams are prepared not only to play the game but to win the games. And for competing the games, it is not only the proficiency in the skills which bring victory but more important is the spirit of players with which they play and perform their best in competition. The word "stress" is used in generic terms during the course of this paper. There are countless meanings under the umbrella of the word "stress." In this study, the word "stress" relates to anxiety within an individual. For Sigmund Freud, the word anxiety was "something felt"--a specific unpleasant emotional state or condition of the human organism that included experiential, physiological, and behavioral components (Spielberger, 1966)<sup>[8]</sup>.

There are a variety of coping mechanisms available for athletes who may be suffering from stress or anxiety. Each athlete needs to figure out which one works best for them, and that may take them a while as they need to try out each mechanism for a while to see if it works for them. There are many methods available including "hypnosis, progressive relaxation, visualization, biofeedback, autogenic training, mediation, negative thought stoppage, and confidence enhancement" (Hann, 2000). Reilly and Williams (2003) stated seven different demand categories in which an athlete may need to alter in order to lower their levels of stress and anxiety, these categories include: "physical demands, psychological demands, environmental demands, expectations and pressure, relationship issues, life direction concerns and uncategorized stress sources."

**Correspondence**  
**Dr. Sukhdev Singh**  
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Punjab, India

In each category Reilly and Williams listed a variety of coping mechanisms the athlete can use to help limit stress and anxiety in that category. For physical demands they suggest, “rational thinking, pre-competition mental preparation, changing to healthy acting attitudes and behavior, and training hard and smart.” For psychological demands they suggested using “pre-competition mental preparation, management, positive focus and orientation, and training hard and smart. Progressive relaxation involves alternately tensing and relaxing the muscles. A person using PMR may start by sitting or lying down in a comfortable position. With the eyes closed, the muscles are tensed (10 seconds) and relaxed (20 seconds) sequentially through various parts of the body. The whole PMR session takes approximately 30 minutes. As this is a technique, practice with PMR does make perfect and will usually not work effectively as it should the first couple of times. An entire progressive muscle relaxation protocol in audio format is available here. Patients with generalized anxiety disorder who first try PMR with anxiety may become frustrated, feel rushed, or feel an increase in anxiety for various reasons such as being afraid to “let your guard down.” As with doing anything new, this is to be expected and simply practiced again once or twice a day Ortiz (2006) [5]. The present study aims at finding out the effect of Yoga nidra on the Blood cells, especially on Hemoglobin and TLC (Total Leukocyte Count) on college going students ranged 20 to 25 years age. The study conducted at the yoga clinic of Dev Sanskriti Vishwavidyalaya in collaboration of Brahmavarchas Research Institute, Haridwar. Practice time was 30 minutes the duration was 6 months. 80 students were taken from P.G. yoga classes for observing the effect as well as 30 was in control group. Yoga nidra positively increases the Hemoglobin level and TLC level of male and female subjects both) Kumar (2007) [3].

**Methodology**

The presented study was conducted with the purpose to determine comparative analysis of progressive muscular relaxation training and yog nidra training effect on anxiety of athletes. The study was conducted on thirty university level players of individual sports and team sports (judo, track and field, handball, cycling, baseball, softball, badminton, korfbal, basketball and archery) were recruited as subjects from the different colleges of Punjabi University Patiala. All subjects were given an informed consent letter to sign to be a subject for the present study with their own will. The researcher were ask the player to fill the sports competition anxiety test (SCAT) questionnaire and after conducting the test the investigator was only select thirty high and low level anxiety players. After that the researcher was divide the subject in two different groups. These two different groups were exposing to selected psychological relaxation techniques.

The following components of variables were selected for the present study.

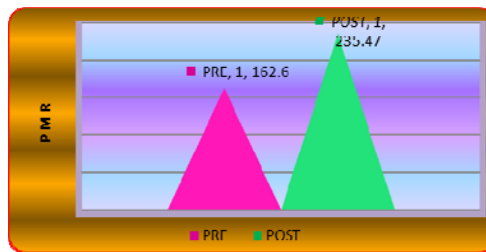
1. Progressive Muscle Relaxation
2. Yog Nidra

**Table 1:** comparison of pretest and posttest of progressive muscle relaxation

Statistical Calculation				
Pre		Post		t-value
Mean	S.D.	Mean	S.D	
162.6	41.02	235.47	56.33	4.05*

\* t.05 (28) = 2.05

The reveals of table 1 indicates the mean score of pre- test anxiety and post- test anxiety of Punjab students are 162.6 and 235.47 respectively. The t-value is 4.05 which are significant at 0.05 level of confidence. Thereby indicating that there is significant difference between pre- test anxiety and post -test anxiety. Therefore, hypothesis I which states that “There will be significant effect of Progressive muscle relaxation on state anxiety of sports person.” is accepted.



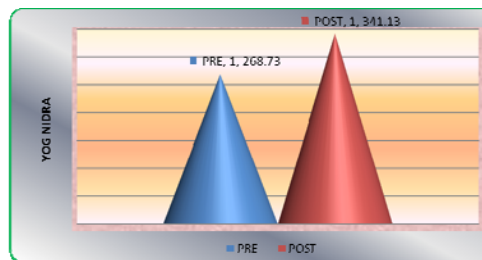
**Fig 1:** Comparison of Pre and Post Anxiety of PMR

**Table 2:** Comparison of Pre Test and Post Test of Yog Nidra Technique Group B

Statistical Calculation				
Pre		Post		T-Value
Mean	S.D.	Mean	S.D	
268.73	137.09	341.13	140.37	1.43 <sup>ns</sup>

\* t.05 (28) = 2.05

The above of table 2 indicates the mean scores of group B of pre- test and post- test of anxiety of Punjab players are 268.73 and 341.13. The t-value is 1.43, which were not significant at 0.05 level of confidence. There by indicating that there is no significant difference between pre -test and post- test anxiety. Therefore, hypothesis 2 which states that “There will be significant effect of yog nidra on state anxiety of athletes.” is not accepted.



**Fig 2:** Comparison of Pre and Post Anxiety of Yog Nidra

**Discussion of the Findings**

The purpose of the present study was to find out the comparison of progressive muscle relaxation and yog nidra technique effect on anxiety level of athletes.

The present investigation has been conducted on 30 subjects, 15 for PMR and 15 for yog nidra (group A and group B).all are of 20 to 26 years of age to find out the comparison of progressive muscle relaxation and yog nidra technique effect on anxiety level of athletes. Firstly GSR applied on these subjects and then give the PMR to group A and yog nidra to group B. It was gives for 15 days. After that again GSR applied on these subjects and collected pre and post test data and data analysis show that it had significance difference between pre and posttest of progressive muscle relaxation on anxiety of athletes. The another data analysis of posttests of PMR and yog nidra shows that there is a significance difference.

As data was collected that shows regular and steady decrease in anxiety of each individual, the above study was very much related to the previous studies conducted in the same field such as Fehring (1983) [23], Vancampfort *et al.* (2011) [2], Martens, *et al.* (1977) [6], Blumenstein, (1995) [1].

Therefore the result of this study reveals that progressive muscle relaxation technique had significant effect and yog nidra effect on anxiety had no significant.

### **Conclusion of the Study**

On the basis of findings of present study, the following conclusions were drawn.

1. There was significant difference observed in pre and post-test anxiety in progressive muscle relaxation because all the subject were physically active.
2. There was insignificant difference in pre and post- test of anxiety in yog nidra because of the environmental factors

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