

# Effect of Brisk Walking with Yoga Nidra on Selected Psychological Variables among Obese College Boys

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## Abstract

The present random group experimental study was designed to find out the effect of brisk walking with yoga nidra practices on selected psychological variables among obese college boys. It was hypothesized that there would be significant improvement in brisk walking with yoga nidra practices than the control group on Emotional Maturity and Anxiety among obese college boys. To achieve the purpose of the study, thirty (30) obese college boys residing in Chennai age between 19 to 24 years were selected randomly two groups, namely experimental group and control group of fifteen (15) subjects each. Training period of this study was twelve weeks. Experimental group underwent brisk walking with yoga nidra practices for twelve (12) weeks, five days a week for a maximum of one hour in the morning. The control group was kept in active rest. The pre-test and post-test were conducted before and after the training for all two groups. To analyses the data (ANCOVA) test was used to find out the significant difference between experimental group and the control group. The test of significance was fixed as 0.05 level of confidence. It was concluded that there was significant improvement in brisk walking with yoga nidra practices than the control group Emotional Maturity and Anxiety among obese college boys.

## Introduction

Obesity means fatness. It is defined as excess of adipose tissue due to enlargement of fat cell. It is a chronic, glandular and nutritional disorder [1,2]. It's increasingly prevalent health concerns in the industrialized world. In the United State, an estimated 280,000 to 325,000 death a year are attributable to obesity, making it second only to smoking as preventable cause of death. Apart from the increased risk of morbidity and mortality associated with excess body fat, obesity may also adversely affect an individual's capacity to live a full and active life [3]. It is estimated that of 2.1 billion are obese, worldwide. 9.8% of men are obese globally. One in every two American adults will be obese by 2030. Obesity will create tremendous economic burden in the country [7]. Yoga is a needed and a powerful remedy not only for the day to day problems but also to overcome niggling health problems [6].

## Statement of the Problem

The purpose of the study was to find out the effect of brisk walking with yoga nidra practices on selected psychological

variables among obese college boys.

## Hypothesis

It was hypothesized that there would be significant difference in brisk walking with yoga nidra practices than the control group on Emotional Maturity and Anxiety among obese college boys.

## Review of Related Literature

4. Streeter, C et al. (2010) Conducted a study on Effects of yoga versus walking on mood, anxiety, and brain GABA levels: a randomized controlled MRS study. Healthy subjects with no significant medical/psychiatric disorders were randomized to yoga or a metabolically matched walking intervention for 60 minutes 3 times a week for 12 weeks. Mood and anxiety scales were taken at weeks 0, 4, 8, 12, and before each magnetic resonance spectroscopy scan. Scan 1 was at baseline. Scan 2, obtained after the 12-week intervention, was followed by a 60-minute yoga or walking intervention, which was immediately followed by Scan 3. There were positive correlations between improved mood and

decreased anxiety and thalamic GABA levels. The yoga group had positive correlations between changes in mood scales and changes in GABA levels. The 12-week yoga intervention was associated with greater improvements in mood and anxiety than a metabolically matched walking exercise. This is the first study to demonstrate that increased thalamic GABA levels are associated with improved mood and decreased anxiety. It is also the first time that a behavioral intervention (i.e., yoga postures) has been associated with a positive correlation between acute increases in thalamic GABA levels and improvements in mood and anxiety scales. Given that pharmacologic agents that increase the activity of the GABA system are prescribed to improve mood and decrease anxiety, the reported correlations are in the expected direction. The possible role of GABA in mediating the beneficial effects of yoga on mood and anxiety warrants further study. The paired t-tests were used as statistical techniques to find the results. Hence the hypothesis was accepted at 0.05 Level of confidence.

Muchhal, MK and Kumar A (2015), Conducted a study on Effect of Yogic Exercise on Emotional Maturity of B.Ed. Students. There was no significant difference in Emotional maturity of B. Ed students of experimental and control groups at pre-test. There was no significant difference in Emotional maturity of B. Ed students of experimental and control groups at post-test. There is no significant difference in the mean reduced scores of Emotional maturities between B. Ed students of experimental and control groups. It was an experimental study based on randomized matching a pre-test, post-test, control group design with one experimental group was employed to conduct the present experimental study. Treatment was the independent variable and dependent variable is academic stress. Training in Yoga exercise Shatkriyas (Kapalbhati and Trataka), Pranayamas (Anulom-Vilom, Shitali, Shitkari and Bhramari) and Meditation was given to the experimental group for 30 days one hour in morning regularly. Sample of 100 B. Ed from colleges of Ambala Districts were taken in the present study. This was further categorized in to control group (50) and experimental group (50). We used randomize method to select the B. Ed students for data. "There was no significant difference in Emotional maturity of B. Ed students of experimental and control groups at pre-test" was accepted. Hypothesis "There was no significant difference in Emotional maturity of B. Ed students of experimental and control groups at post-test" was rejected in favors of the finding that yogic practices helped in improving of Emotional Maturity. Entries made in t-ratio for the mean reduced scores between the experimental and control groups on Emotional maturity was found to be significant at 0.01 level of confidence ( $t=9.648$ ). Thus, was rejected as the experimental group students who were exposed

to yogic practices exhibited improvement Emotional maturity as compared to their counterparts of the control group. On the behalf of above discussion, we can say that yoga effects emotional maturity of the B. Ed students. We can emotionally stable through yoga practices can yoga effects our nervous system and glandular system which makes our emotionally mature, so yoga helps to improve emotional maturity.

## Methodology

For the purpose of this random group experimental study, thirty (30) obese college boys in Chennai were selected at random as subjects based on their Emotional Maturity and Anxiety and their age was ranged from 19 to 24 years. Brisk walking with yoga nidra practices were given five days (Monday to Friday) per week for twelve weeks. All the subjects were randomly assigned to experimental group and control group each consisted of 15 subjects. Experimental group was involved in brisk walking with yoga nidra practices for twelve weeks, and the control group kept in active rest. The brick' walking with yoga nidra practices includes warm up brisk walking, warm down, Preparation (loosing exercise, suryanamaskar, Basic asanas), Relaxation (in shavasana-Body/Om), Resolve (Personal Sankalpa-Don't change), Rotation of Consciousness (through different parts of the body), Awareness of breath (nostrils to the chest(count breaths with 27 to 1)), Visualization (Symbols, Temples, Flowers, Oceans, Landscapes, Mountains etc), Resolve (Personal Sankalpa-Don't change), Ending in the practices (from psychic sleep to the waking state) Techniques. Initially pre-test was taken and after the experimental period of twelve weeks, post-test was taken from all the two groups. The differences between initial and final Anxiety and Emotional Maturity variables were considered as the effect of brisk walking with yoga nidra practices on selected subjects. Analysis of Covariance (ANCOVA) test was used to find out the difference among the experimental group and control groups. The test of significance was fixed as 0.05 level of confidence.

## Results and Discussion

The data pertaining to the variables collected from the two groups before and after the training period were statistically analyzed by using Analysis of Covariance (ANCOVA) to determine the significant difference and tested at 0.05 level of significance.

### Results on Anxiety

The Analysis of Covariance (ANCOVA) on anxiety brisk walking with yoga nidra practices and control group was analyzed and are presented in Table 1.

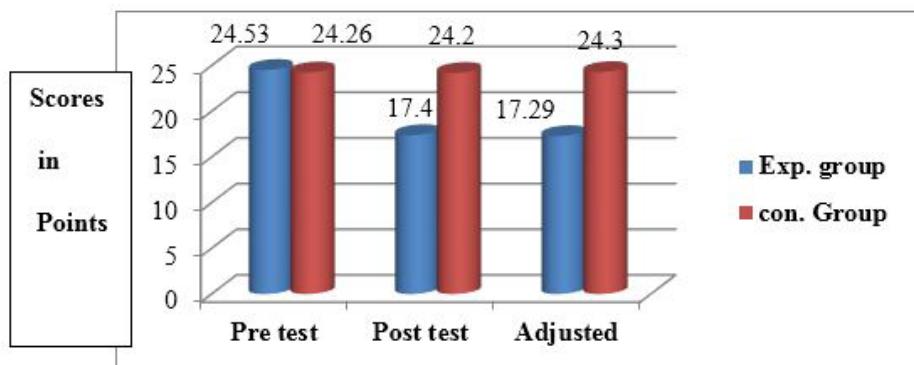
Test	EXP Group	CON Group	SV	SS	Df	MS	F
Pre-test	24.53	24.26	Between	0.53	2	0.53	0.03
			Within	424.66	28	15.16	
Post test	17.4	24.2	Between	346.8	2	173.4	11.03*
			Within	440	28	15.71	
Adjusted	17.29	24.3	Between	368.85	2	184.42	31.49*
			Within	158.09	27	5.85	

\*Significant at 0.05 level of confidence (Table F-ratio at 0.05 level of confidence for 2 and 28 (df) =3.31, 2 and 27 (df) =3.32)

**Table 1:** Computation of analysis of covariance of training group and control group on anxiety (scores in points).

The obtained F-ratio value for the anxiety were greater than the table value, it indicates that there was a significant difference among post-test and adjusted post-test means of the brisk walking with yoga nidra practices group than the control group [4].

The pre-test, post-test and adjusted post-test mean values of brisk walking with yoga nidra practices and the control group on anxiety were graphically presented in Figure 1.



**Figure 1:** Yoga nidra practices and the control group on anxiety.

## Results on Adjustment Inventory

The Analysis of Covariance (ANCOVA) on Emotional Maturity brisk walking with yoga nidra practices and control group was analyzed and are presented in Table 2.

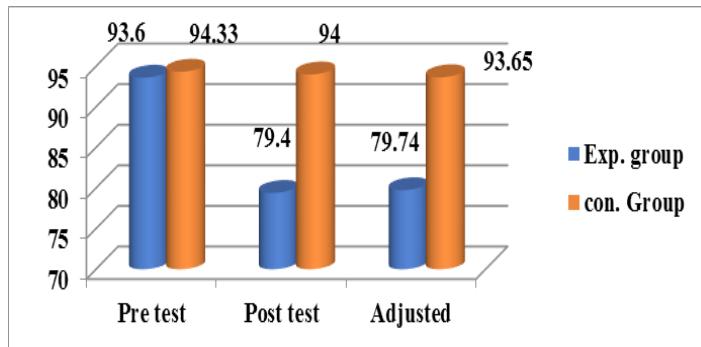
Test	EXP Group	CON Group	SV	SS	Df	MS	F
Pre-test	93.6	94.33	Between	4.03	2	4.03	0.02
			Within	4918.9	28	175.67	
Post-test	79.4	94	Between	1598.7	2	799.35	4.54*
			Within	4923.6	28	175.84	
Adjusted	79.74	93.65	Between	1449.6	2	724.79	35.84*
			Within	545.96	27	20.22	

\*Significant at 0.05 level of confidence (Table F-ratio at 0.05 level of confidence for 2 and 28 (df) =3.31, 2 and 27 (df) =3.32)

**Table 2:** Computation of analysis of covariance of training group and control groups on emotional maturity (scores in points).

The obtained F-ratio value for the Emotional Maturity were greater than the table value, it indicates that there was a significant difference among post-test and adjusted post-test means of the brisk walking with yoga nidra practices group than the control group [5].

The pre-test, post-test and adjusted post-test mean values of brisk walking with yoga nidra practices and the control group on Emotional Maturity were graphically presented in Figure 2.



**Figure 2:** Bar diagram showing the adjusted post-test means of experimental and control groups on emotional maturity (scores in points).

## Conclusion

It was concluded that there was significant improvement in brisk walking with yoga nidra practices than the control group stress and adjustments inventory among obese college boys.

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