

EFFECT OF YOGA NIDRA AND PRANAYAMA ON STRESS AND SOCIAL ADJUSTMENT CAPACITY OF TRIBAL STUDENTS

Dr. Binod Chowdhary, Asstt. Prof.,
Seba Bharati Bharati Mahavidyalaya,
Kapgari, Midnapure., (W.B.)



ABSTRACT

Yoga nidra, which is derived from the tantras, is a powerful technique in which you learn to relax consciously. Yoga nidra is a systematic method of inducing complete physical, mental and emotional relaxation. During the practice of yoga nidra, one appears to be asleep, but the consciousness is functioning at a deeper level of awareness. For this reason, yoga nidra is often referred to as psychic sleep or deep relaxation with inner awareness. The purpose of this study was to determine the Effect of Yoga Nidra and Pranayama on Stress and Social Adjustment Capacity of Tribal Students. Ninety tribal students, with age ranging between 17 to 22 years were randomly selected as subjects of the study. The Experimental Group – A participated in Yoga Nidra where as Experimental Group – B participated in Pranayama. The control group (Group-C) did not participate in practice of yogic programmes. The training was conducted for a period of twelve weeks, five days a week. Significant improvement was found in stress performance as a result of the experimental treatments in all the two experimental groups. Significant improvement was found in social adjustment performance as a result of the experimental treatments in all the two experimental groups.

Keywords: Yoga Nidra, Pranayama, Stress, Social Adjustment Capacity.

INTRODUCTION

Yoga is defined as a practice consisting of three components: gentle stretching; exercises for breath control; and meditation as a mind-body intervention. The version used mainly in the West is hatha yoga, which consists of an integration of asana (postures), pranayama (breathing exercise), and meditation. Although yoga has its origins in Indian culture and religion, it can be practiced secularly. No systematic reviews have been published on the benefits of yoga in anxiety or anxiety disorders. This is despite the fact that a recent analysis of publication trends has shown an increase in publication frequency and growing use of randomized controlled trials to study yoga as a therapeutic intervention. The only systematic review that looks specifically at yoga as an intervention for any condition is that on yoga in epilepsy, which was inconclusive because of a lack of studies. The effect of exercise on anxiety has, however, been reviewed. There is some evidence of an anxiolytic effect with aerobic exercise possibly more beneficial than non-aerobic exercise. There is also some evidence that exercise may be particularly beneficial in people with more severe anxiety. None of these reviews, however, appear to have included yoga as a form of exercise. There are a number of studies that look at the effects of yoga on anxiety levels in non-clinical samples. Berger and Owen compared the effects of swimming, fencing, body conditioning, and yoga classes and found that only the yoga treatment group recorded a significant short term reduction in state anxiety. Ray et al reported that yoga reduced anxiety but only among male students. Netz and Lidor showed that participants in yoga as well as swimming and the Feldenkrais method recorded lower anxiety levels than a control group. However, in a study of elderly people, Blumenthal et al found that yoga participants fared worse than those in an aerobic exercise group and no better than the other treatment regimens on anxiety measures. It is difficult to predict on the basis of the findings of these studies the effect of yoga on people with anxiety or a specific anxiety disorder, and therefore it is important to identify the evidence that is currently available.

Yoga nidra, which is derived from the tantras, is a powerful technique in which you learn to relax consciously. Yoga nidra is a systematic method of inducing complete physical, mental and emotional relaxation. During the practice of yoga nidra, one appears to be asleep, but the consciousness is functioning at a deeper level of awareness. For this reason, yoga nidra is often referred to as psychic sleep or deep relaxation with inner awareness. In this threshold state between sleep and wakefulness, contact with the subconscious and unconscious dimensions occurs spontaneously. A yoga module consisting of yoga asanas, pranayama, meditation, and a value orientation program was administered on experimental group for 7 weeks. The experimental and control groups were post-tested for their performance on the three subjects mentioned above. The results show that the students, who practiced yoga performed better in academics. The study further shows that low-stress students performed better than high-stress students, meaning thereby that stress affects the students' performance. There was significant improvement in the subjective well being scores of the 77 subjects within a period of 10 days as compared to controls. These observations suggest that a short lifestyle modification and stress management educational program leads to remarkable improvement in the subjective well being scores of the subjects and can therefore make an appreciable contribution to primary prevention as well as management of lifestyle diseases.

The purpose of this study was to determine the Effect of Yoga Nidra and Pranayama on Stress and Social Adjustment Capacity of Tribal Students.

METHODOLOGY

Subjects:

Ninety tribal students, with age ranging between 17 to 22 years were randomly selected as subjects from B.A/B.Sc students of Vidyasagar University, West Bengal. Three groups were formed each comprising of 30 subjects. Thirty subjects (N=30) were selected for experimental group –A, Thirty subjects (N=30) were selected for experimental group –B, and Thirty (N=30) acted as control group.

Experimental Treatments:

The Experimental Group – A participated in Yoga Nidra where as Experimental Group – B participated in Pranayama. The control group (Group-C) did not participate in practice of yogic programmes. The training was conducted for a period of twelve weeks, five days a week. The scholar explains and demonstrated the Yoga Nidra and Pranayama to experimental group A & B respectively, all the subjects of the experimental groups participated in training programmes.

The details of the training programme are as follow:

Five days a week training session. Each session of training was 20 to 40 minutes duration. Total training programme was for twelve week. In Pranayama the following items were practiced:

- Kapalbhati
- Bhramari
- Nadi Sodhan

Criterion Measures:

Stress

This Girdino stress inventory contains twenty five question to be answered with two alternatives choice i.e. ‘yes’ and ‘no’. The inventory provides information on a variety of stress indicators and in this report, would logical validity obviously the examiner who marks “Yes” by many items would be viewed as having a high level of stress. A low- stress individual would respond “No” to most of the items. It would be unusual for an individual to mark “No” by all items, since everyone function with a certain level of stress, for information on other aspects of this inventory, including reliability validity and scoring, refer to the original source.

Social Adjustment

Cowell developed twelve pairs of behaviour “trends” representing good and poor adjustments. As a result of a factor analysis, ten of the pairs of positive and negative behaviour trends were retained as common denominators underlying good and poor adjustment. These positive and negative scales (forms A and B, respectively) appear in Social Adjustment Questionnaire. Cowell recommends that three teachers rate each pupil on both forms at different times; a pupil’s social adjustment score is the total of the ratings of the three teachers combining the two forms. Thus, a socially well-adjusted pupil would get a high positive score; a socially maladjusted pupil would receive a high negative score. Each question contain four alternatives choice to be marked by student viz. markedly, somewhat, only slightly and not at all and the point allotted was +3, +2, +1 and +0 for form A and –3,-2,-1 and 0 for form B respectively. The total index score is the sum of the points for the 10 items in form A minus the sum of the points for the 10 items in form B.

Statistical Procedures:

To determine the effect of yoga nidra and pranayama on psychological variables on tribal students of West Bengal, descriptive statistics and ANCOVA (Analysis of Covariance) was applied at 0.05 level of significance.

RESULTS AND DISCUSSIONS

TABLE-1
ANCOVA TABLE FOR THE POST-TEST DATA ON STRESS

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F
Pre stress	1147.973	1	1147.973	155.386
Treatment	553.792	2	276.896	37.480
Error	635.357	86	7.388	
Corrected Total	2337.122	89		

* Significant at 0.05 level of significance

Table no. 1 indicates the values test of difference between the subject effects, which shows that there was a significant difference in pre test values of psychological variable of stress for the three selected groups, as the value was found to be 155.38, which proves to be the base of Analysis of Co-Variance and the pre test was kept covariant. Also, a significant difference was found between the post test values of the experimental and control group as the value was found to be 37.48, which was significant at 0.05 level.

TABLE-2
POST HOC COMPARISON FOR THE GROUP MEANS IN POST-MEASUREMENT ADJUSTED WITH THE INITIAL DIFFERENCES STRESS

TREATMENT GROUP (I)	TREATMENT GROUP (J)	MEAN DIFFERENCE (I-J)	SIG. ^A (p-value)
Pranayama Group Stress	Yoga Nidra Group Stress	.214	.761
	Control Group Stress	-5.158*	.000
Yoga Nidra Group Stress	Pranayama Group Stress	-.214	.761
	Control Group Stress	-5.372*	.000
Control Group Stress	Pranayama Group Stress	5.158*	.000
	Yoga Nidra Group Stress	5.372*	.000

*Significant at 0.05 level of significance

Based on estimated marginal means

Table no. 2 indicates the values of post hoc test for the selected groups for psychological variable of stress, which shows that a significant difference was found between the post test values of pranayama group and the control group as the value was found to be 5.15 which was significant at 0.05 level, also a significant difference was found between the post test values of yoga nidra group and the control group as the value was found to be 5.37, which was significant at 0.05 level.

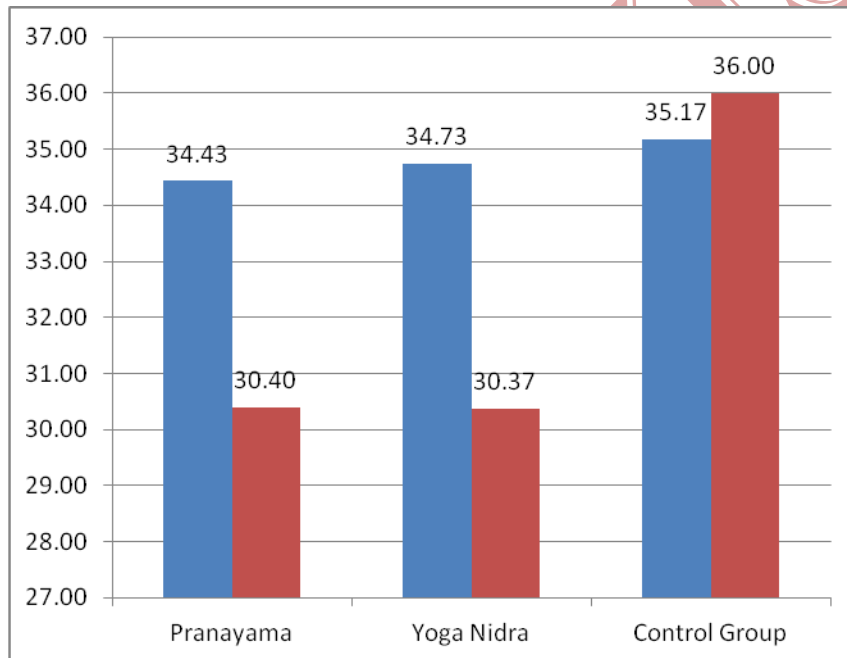


Fig. 01: Comparison of the Means on Stress of the Control Group and Two Experimental Groups

Table 31 shows the F –value for comparing the adjusted means of the three treatment groups (pranayama, yoga nidra, control) during post-testing. Since p-value for the F- statistic is 0.000 which is less than 0.05, it is significant. Thus, the null hypothesis of no difference among the adjusted post-means for the data on stress in three treatment groups may be rejected at 5% level.

Hence, it may be inferred that pranayama and yoga nidra are equally effective in decreasing the stress among the subjects in comparison to that of the control group.

TABLE-3
ANCOVA TABLE FOR THE POST-TEST DATA ON SOCIAL ADJUSTMENT

SOURCE	SUM OF SQUARES	DF	MEAN SQUARE	F
Pre Social Adjustment	1787.803	1	1787.803	128.627
Treatment	606.031	2	303.015	21.801
Error	1195.322	86	13.899	
Corrected Total	3589.156	89		

*Significant at 0.05 level of significance

Table no. 3 indicates the values test of difference between the subject effects, which shows that there was a significant difference in pre test values of psychological variable of social adjustment for the three selected groups, as the value was found to be 128.62, which proves to be the base of Analysis of Co-Variance and the pre test was kept covariant. Also, a significant difference was found between the post test values of the experimental and control group as the value was found to be 21.80, which was significant at 0.05 level.

TABLE-4
POST HOC COMPARISON FOR THE GROUP MEANS IN POST-MEASUREMENT ADJUSTED WITH THE INITIAL DIFFERENCES SOCIAL ADJUSTMENT

(I) TREATMENT GROUP	(J) TREATMENT GROUP	MEAN DIFFERENCE (I-J)
Pranayama Group Social Adjustment	Yoga Nidra Group Social Adjustment	-2.738*
	Control Group Social Adjustment	3.622*
Yoga Nidra Group Social Adjustment	Pranayama Group Social Adjustment	2.738*
	Control Group Social Adjustment	6.360*
Control Group Social Adjustment	Pranayama Group Social Adjustment	3.622*
	Yoga Nidra Group Social Adjustment	6.360*

*Significant at 0.05 level of significance

Table no. 4 indicates the values of post hoc test for the selected groups for psychological variable of social adjustment, which shows that a significant difference was found between the post test values of pranayama group and the control group as the value was found to be 3.62 which was significant at 0.05 level, also a significant difference was found between the post test values of yoga nidra group and the control group as the value was found to be 6.360, which was significant at 0.05 level.

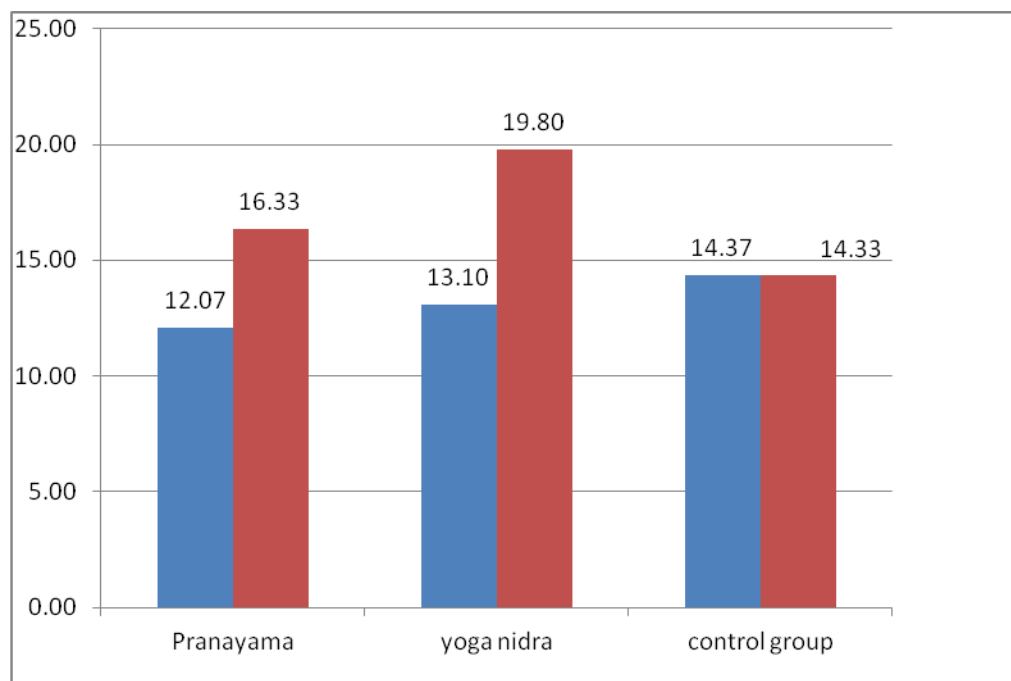


Fig. 02: Comparison of the Means on Social Adjustment of the Control Group and Two Experimental Groups

Since F-statistic is significant, post hoc comparison has been made for the adjusted means of the three treatment groups which is shown in table 36. It may be noted here that p-value for the mean difference between pranayama and control is 0.000 and yoga nidra and control is 0.000. Both these p-values are less than 0.05 and hence they are significant at 5% level. Thus, the following conclusions can be drawn:

There is a significant difference between the adjusted means of the pranayama and control groups on the data of social adjustment during post-testing.

There is a significant difference between the adjusted means of the yoga nidra and control groups on the data of social adjustment during post-testing.

There is no significant difference between the adjusted means of pranayama and yoga nidra on the data of social adjustment during post-testing.

The values were found significant and it was found that pranayama and yoga nidra are equally effective in increasing the social adjustment among the subjects in comparison to the control group.

Hence there was a significant improvement on the selected variables of selected psychological variables. Thus, it may be concluded that yoga nidra and pranayama effect the psychological variables of tribal students.

CONCLUSION

Significant improvement was found in stress performance as a result of the experimental treatments in all the two experimental groups.

Significant improvement was found in social adjustment performance as a result of the experimental treatments in all the two experimental groups.

REFERANCES

Saraswati Swami Satyananda (1998) “Yoga Nidra”, Yoga Publication Trust, Munger, Bihar, India, sixth Edition, , pp.1-2.

Kauts A. and Sharma N., (January 2009) “Effect of yoga on academic performance in relation to stress”, International Journal of Yoga. Vol. 2: 1, pp. 39-43,.

Sharma R, Gupta N, Bijlani RL. (2008) “Effect of yoga based lifestyle intervention on subjective well-being”, Indian J Physiol Pharmacol. Apr-Jun; 52(2): pp 123-31.

Ernst E. Therapies: (2001) yoga (section 3). In: Ernst E, ed. The desktop guide to complementary and alternative medicine. An evidence-based approach. Edinburgh: Mosby,:7pp 6–8.

Riley D. (2004) Hatha yoga and the treatment of illness. Altern Ther Health Med, 10:20–1.

Khalsa SBS. (2004) Yoga as a therapeutic intervention: a bibliometric analysis of published research studies. Indian J Physiol Pharmacol; 48:269–85.

- Ramaratnam S, Sridharan K. (2004) .Yoga for epilepsy (Cochrane Review). Cochrane Library. Issue 3. Chichester: John Wiley & Sons, Ltd,
- Petruzzello S, Landers D, Hatfield B, et al. (1991) A meta-analysis on the anxietyreducing effects of acute and chronic exercise: outcomes and mechanisms. *Sports Med*; 11:143–82.
- Salmon P. (2001) Effects of physical exercise on anxiety, depression, and sensitivity to stress: a unifying theory. *Clin Psychol Rev*; 21:33–61.
- Scully D, Kremer J, Meade M, et al. (1998) Physical exercise and psychological well being: a critical review. *Br J Sports Med*; 32:111–20.
- Dunn AL, Trivedi MH, O’Neal HA. (2001) Physical activity dose-response effects on outcomes of depression and anxiety. *Med Sci Sports Exerc*; 33:S587–97.
- Berger BG, Owen DR. (1988) Stress reduction and mood enhancement in four exercise modes: swimming, body conditioning, hatha yoga, and fencing. *Res Q Exerc Sport*; 59:148–59.
- Ray US, Mukhopadhyaya S, Purkayastha SS, et al. (2001) Effect of yogic exercises on physical and mental health of young fellowship course trainees. *Indian J Physiol Pharmacol*; 45:37–53.
- Netz Y, Lidor R. (2003) Mood alterations in mindful versus aerobic exercise modes. *J Psychol*; 137:405–19.
- Blumenthal JA, Emery CF, Madden DJ, et al. (1989) Cardiovascular and behavioural effects of aerobic exercise training in healthy older men and women. *J Gerontol*;44:M147–57.
- Blumenthal JA, Emery CF, Madden DJ, et al. (1991) Long-term effects of exercise on psychological functioning in older men and women. *J Gerontol*;46:352–61.

IJEHSS