

A study of the improvement of Physical and Mental Health through “Yoga nidra”

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The present study aims at the effect of Yoga nidra on Alpha E.E.G. and G.S.R. of college going students. The study was conducted at the yoga clinic of Dev Sanskriti Vishwavidyalaya. Practice time was 30 minutes and the duration was 6 months. The sample consisted of 80 students which includes forty males and forty females. A control group of 30 students (fifteen males and fifteen female) was taken up in the study. The result shows a significant change as Yoga nidra positively increase the Alpha E.E.G. and G.S.R. of the subjects. This indicates the improvement of physical and mental health as a result of practicing Yoga nidra.

Due to the advancement of technology and the information overload the situation is pathetic; Dr. Pranav Pandya (2003) we can hardly find any one around, whose mind remains balanced and is always free from tension stress and worries. Stress and anxiety have become major killers in our developed world. Particularly the youth, the college going students are loosing their health and well being.

Good health is one of the greatest resources for vitality, creativity and wealth, while poor health in contrast significantly drains the aforementioned. Hence it is necessary for the students of higher education to induce a complete relaxation technique, through which they can prevent themselves from common disorders.

Yoga nidra is probably best-known technique to induce complete physical mental and emotional relaxation. *Yoga nidra* is a state of consciousness, which is, neither sleep nor awoken, neither is it concentration nor hypnotism. It can be defined as an altered state of consciousness

According to **Sri Ram Sharma Acharya (1995)** *Yoga nidra* can be understood as scientific sleep. It is a total practice of yoga it self. The practices of *Sithilasana*, *Savasana*, *Sunyavastha* and *Samadhi* are of great importance in conditioning the body and mind, which are the different stages of *Yoga nidra*.

Various studies have been done in different part of world for observing the effect of *Yoga nidra*. M.J. Cooper, (1979): in an important study at the University of Tel Aviv (Israel) says that *Yoga nidra* significantly lowered levels of serum cholesterol in cardiac patients.

In another study, which was conducted at the Langley Porter Neuropsychiatry Institute in California, Lekh Raj Bali (1979) found a reduction in blood pressure and anxiety levels

in hypertensive patients as a result of the practice of *Yoga nidra* training continued for 12 months.

Sw. Mangalteertham (1998) proved through a series of study done at Cherring Cross Medical School London that it is a technique in which one can alter the states of consciousness from beta to alpha and then to delta. Therefore subject enjoys the different state of consciousness, knowingly. It is a pratyahara but also opens the door for meditation.

Siddhartha Bhushan (2001) says on the basis of his study that the technique of *Yoga nidra* has preventive, promotive and curative value. It prevents stress and stress-related disorders by inducing deep physical, emotional and mental relaxation, by training the mind to remain calm and quiet and by rooting out the repressed desires and thoughts from the deeper realms of the mind. As a promotive science, *yoga nidra* awakens the inherent creativity and promotes the learning and memory abilities of the practitioner.

Kumar, K. (2004) find after a six months study on the higher class students that practice of *Yoga nidra* reduces the stress and anxiety as well as improves the General Well Being.

Kumar, K. (2005) observed in another study that *Yoga nidra* affects positively on blood pressure and other psychological co-relates in hypertensive patients.

It is therefore appropriate now to move from the preliminary exploratory stage to one with proper controls and predetermined statistical analysis.

Objective:

1. To assess the effect of *yoga nidra* on level Alpha E.E.G. of the subjects.
2. To assess the effect of *yoga nidra* on G.S.R. level of the subjects.

Material and methods

Eighty students (male40, female40) of ranged 20-30 years from Dev Sanskriti Vishwavidyalaya of P.G. yoga classes selected for the practice of *yoga nidra* assigned to the experimental group through Stratified quota sampling method. One of the groups of thirty students (15males, 15 females) of same age group and same class also considered as control group.

Both the group experimental and control were from P.G. Yoga classes; so all had been practicing the set of *Asanas*, *Pranayamas* and *Shatkarmas* regularly (except Sunday and holidays). For the experimental group it was only one difference that they were practicing *yoga nidra* for half an hour daily (except Sunday and holidays) additionally. Before starting the practice of *Yoga nidra* both the group went under through tests.

Practice of *Yoga nidra* in this study is the simplest method of relaxation which is being practiced in the flat lying position of *Shavasana* and follows the spoken instruction of Yoga-instructor. It is convenient to use *yoga nidra* tape. The practice includes the resolve, body part awareness, breath awareness, visualization & ending of the practice. In *yoga nidra*, it is not necessary to concentrate. One should just keep the mind moving from

point to point and be aware of every experience. *Yoga nidra* means sleep with a trace of awareness.

Tools

To assess the impact of Yoga nidra parameters were Alpha E.E.G. and G.S.R. Biofeedback.

Hypotheses & Results

Hypothesis (1): The practice of Yoga nidra will positively increase the Alpha EEG of the experimental male subjects.

Table (1) - Alpha EEG (male)

	Mean	sd	“t” value	significant level
Experimental	9.54	4.97	7.2	at 0.01
Control	5.55	2.40		

Table (1) shows the mean values are 9.54 of experimental and 5.55 of control group and the t value is 7.2, a significant change at 0.01 significant levels in the Alpha EEG of the male subject of experimental and control group; Hypothesis (1) has been proved.

Hypothesis (2): The practice of Yoga nidra will positively increase Alpha EEG of the experimental female subjects.

Table (2) - **Alpha EEG (Female)**

	Mean	sd	“t” value	significant level
Experimental	8.97	3.66	2.2	at 0.01
Control	6.35	2.19		

Table (2) shows the mean values are 8.97 of experimental and 6.35 of control group and the t value is 2.2, a significant change at 0.01 significant levels in the Alpha EEG of the female subject of experimental and control group; Hypothesis (2) has been proved.

Hypothesis (3): The practice of Yoga nidra will positively increase G.S.R. of the experimental male subjects.

Table (3) - GSR (male)

	Mean	sd	“t” value	significant level
Experimental	187.68	161.69	4.58	at 0.01
Control	85.53	42.04		

Table (3) shows the mean values are 187.68 of experimental and 85.53 of control group and the t value is 7.2, a significant change at 0.01 significant levels in the G.S.R. of the male subject of experimental and control group; Hypothesis (3) has been proved.

Hypothesis (4): The practice of Yoga nidra will positively increase G.S.R. of the experimental female subjects.

Table (4) - GSR (Female)

	Mean	sd	“t” value	significant level
Experimental	178.43	136.95	3.44	at 0.01
Control	485.53	868.50		

Table (4) shows the mean values are 178.43 of experimental and 485.53 of control group and the t value is 3.44, a significant change at 0.01 significant levels in the G.S.R. of the female subject of experimental and control group; Hypothesis (4) has been proved.

Discussion and Conclusion

The mechanisms of action of the psychic, somatic and visceral centers of our brain are closely interconnected by efficient anatomical and physiological links. However, the psychic centers are more closely associated with somatic centers than the autonomically controlled visceral centers. The study shows a significant change in the Alpha EEG level of the subjects. EEG measures minute electrical activity in the brain in the form of waves. The frequency of brain activity waves has been shown to alter according to the state of consciousness and state of mind the subject is in. Beta activity is normally noted in the awake working state. With physical relaxation beta activity is taken up by alpha activity, and as the person goes into different stages of sleep the activity changes to theta and also may exhibit delta activity in deep sleep. As we know the practice of Yoga Nidra is the intermediate stage of awakened and sleep and it is the stage of the brain when it produces Alpha waves.

Following study supports our observation: Sannyasi Mangalteertham (1998) concluded on the basis of his study that the practice of yoga nidra brings alpha dominance in the brain, which is characterized by mental relaxation. As S.M.Roney – Dougal (2001) also observed in a study, initial EEG showed Beta activity prominently with intermittent Alpha activity. With the advancement of Yoga Nidra Beta activity was slowly replaced by Alpha activity and still further by smooth well formed Alpha activity. After 30 sessions of Yoga Nidra gain of alpha activity was better and with further advancement of Yoga Nidra intermittent. Theta activity was noted intermixed with alpha activity suggestive of deep state of relaxation.

A significant change also shows in this study in the GSR level of the subjects. As we know GSR is a change in the electrical properties of the skin in response to stress or anxiety; can be measured either by recording the electrical resistance of the skin or by recording weak currents generated by the body. It can also be understand as a drop in the electrical resistance of the skin, widely used as an index of autonomic reaction. Jennifer Macey (2005) has made a direct connection between the nervous and immune system. He reported that stress leads to a build up of a hormone that inhibits the body's ability to fight off bacteria and viruses. Since practice of Yoga nidra is able to reduce the stress and anxiety of the practitioner, because of its total relaxation effect on the physical mental state it improves the GSR of the subjects.

References

- *Acharya, Pandit Sri Ram Sharma(1995) ;Sadhana Padhatiyon Ka Gyan aur Vigyan; Akhand Jyoti Sansthan,Mathura.*
- *Bhushan, Siddhartha Mar. 2001 ;Yoga (Bihar School of yoga),.*
- *Cooper, M.J. & Aygen, M.M., Dec(1979). A relaxation technique in the management of hypercholesterolemia. J. Hum. Stress, pp. 24-27.*
- *Dr. Pranav Pandya; Akhand Jyoti; page37;Nov-Dec2003*
- *Jennifer Macey Dec. (2005) Journal of Experimental Medicine Kathopnishad 2/3/10*
- *Kumar, K (2004); Yoga nidra and its impact on student's well being; Yoga Mimamsha ,Kaivalyadhama, Lonavla; Vol.36 No.1*

- *Kumar, K. (2005) Effect of Yoga nidra on hypertension and other psychological correlates; Yoga the Science; Yoga Publications, Hubli, Karnataka; Volume 3, Issue 7.*
 - *Lekh Raj Bali, (1979). Long term effect of relaxation on blood pressure and anxiety levels of essential hypertensive males: a controlled study. Psychosom. Med.,41(8).*
 - *Mangalteertham, Sannyasi (Dr A.K. Gosh), (1998). Yoga Nidra - Altered State of Consciousness. In Swami Satyananda's Yoga Nidra. Bihar School of Yoga, Munger, 6th edition.*
 - *S.M.Roney – Dougal; (2001) Altered States of Consciousness and Yogic Attainment in Relation to Awareness of Precognitive and Clairvoyant Targets; Psi Research Centre*
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