

2018

Effects of *Yoga Nidra* on Physical and Psychological Health

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Recommended Citation

Tripathi, R. C. (2018). Effects of yoga nidra on physical and psychological health. In M. Karasawa, M. Yuki, K. Ishii, Y. Uchida, K. Sato, & W. Friedlmeier (Eds.), *Venture into cross-cultural psychology: Proceedings from the 23rd Congress of the International Association for Cross-Cultural Psychology*. https://scholarworks.gvsu.edu/iaccp_papers/145/

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Abstract

The present study examines the effects of *yoga nidra* on the physical and psychological health of middle-aged individuals. *Yoga nidra* is a powerful relaxation and meditation technique derived from traditional yoga. A group of 100 male participants aged 35-45 years from Varanasi City were recruited for this study. They were examined with physical and psychological health measures, and they were then introduced to a training program for practicing *yoga nidra*. The training program was scheduled for 12 weeks, 5 days a week. The training program was introduced to the participants over approximately 60 minutes in the morning for three months. The process of *yoga nidra* was taught by a yoga expert. The participants were divided into two groups: experimental and control. Both groups were given pre- and post-tests. Results indicated positive effects of *yoga nidra* on the physical and psychological health of middle-aged participants as a result of this three-month-long training program.

Keywords: *Yoga nidra*, middle aged people, physical and psychological health

Effects of *Yoga Nidra* on Physical and Psychological Health

For a long time, the medical model has dominated both mental and physical health, which focuses on reducing and eliminating the symptoms of an illness. However, there has been an extensive debate regarding the definition of 'health' itself. The World Health Organization has defined health as, "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organisation, 2005). Contrary to the medical model, a new view of health has been developed over the last years: positive psychology. Positive psychology is the study of happiness, optimism, subjective wellbeing, and personal growth; it focuses on making normal life more fulfilling rather than merely treating mental illness (Seligman & Csikszentmihalyi, 2000). This new view complements the traditional areas of psychology, suggesting the healing of negative aspects (e.g., depression, stress, anxiety), as well as promoting the positive aspects (e.g., happiness, well-being, optimism) of human life.

The goal of positive psychology is not only to promote well-being across time, but to ultimately create a healthy society where individuals live their life peacefully and happily. In this view, yoga provides the key to physical, psychological, social, and spiritual development (Srivastava, 1999; Tripathi, 2016). This practice includes all methods of higher evolution in humanity, such as physical postures, ethical disciplines, breath control, sensory methods, affirmations and visualizations, and prayer and complex meditative disciplines (Frawley, 2008). Yoga is widely used in India and abroad as a technique of relieving stress and anxiety, and also for improving physical and psychological health and well-being (Srivastava, 1999; Tripathi, 2016). It is considered a holistic tool for self-improvement and self-healing, as well as a way to establish harmony among various aspects of life (Patel, 1993; Michie & Sandhu, 1994). It is a process by which the human mind is transformed to become more natural and weaned from the unnatural conditions of life (e.g., stress, anxiety, depression). These unnatural conditions are the product of an individual's negative attitudes toward life while life is always beautiful. Yoga integrates the mind and body by focusing on balance, posture, deep breathing, stretching, and relaxation (Rizzolo, 2008; Tripathi, 2016). As a result, the body and the mind are in a state of constant interaction. Therefore, the science of yoga does not dictate where the body ends and the mind begins, but rather views both as a single, integrated entity.

Yoga is a practical aid, not a religion, not magic; it is an ancient art based on harmonizing the development of the body, mind, and spirit. Originally developed in India over 5,000 years ago (Patel, 1993; Saraswati, 2006; Smith, Hancock, Blake-Mortimer, & Eckert, 2006), the system of classical yoga was compiled by Patanjali in *Yoga Sutra*, who considered yoga the complete control of the operations of the mind (Frawley, 2008). The word "yoga" itself is derived from the Sanskrit root 'YUJ,' meaning 'to join,' 'to yoke,' or 'to unite.' It refers to the union of human beings and universal energy (Taylor, 2003). It teaches the means by which one can learn to communicate with the absolute or with universal energy (Patel, 1993). Yoga is one of the few spiritual traditions that has maintained an unbroken

development throughout history. It deals with all aspects of nature, from body to soul, and with all possible healing methods, from food to meditation (Frawley, 2008). There are many different paths and styles of yoga, such as *Gyan Yoga*, *Bhakti Yoga*, *Karma Yoga*, *Kriya Yoga*, and *Hatha Yoga*, that can be used depending on different individuals' inclinations and different aspects of nature. These different paths for developing the mind are based on the fact that the mind has three aspects: knowing (intellect), feeling (emotion), and willing (action). However, this does not mean that these aspects are exclusive of each other. There is no insistence that all individuals must follow one path or another, and that is why yoga encourages followers to follow the path that appeals most to their heart.

Yoga nidra is one of the most widely used yogic practices, covering the entire range of asana and pranayama as well as many forms of meditation. *Yoga nidra* refers to 'psychic sleep,' or sleep with full awareness. Interestingly, while doing the practice of *yoga nidra*, the body sleeps but the mind remains awake, and that is why it can be described as a resting or sleeping practice that cultivates inner awareness. *Yoga nidra* has its origin in the ancient Tantric practices of *nyasa*, in which a mantra is repeated mentally with concentration at specific parts of the body (Saraswati, 1984). Swami Satyananda Saraswati adapted and presented the practice of *yoga nidra* in a systematic and scientific way in the 1960's (Bhushan & Sinha, 2001). *Yoga nidra* has preventive and curative value as far as mental health is concerned: it can be used as a therapeutic technique to treat psychological disorders like depression, anxiety, insomnia, and drug abuse, as well as physical diseases like asthma, hypertension, and coronary heart disease (Saraswati, 1984).

The profound experience of muscular, mental, and emotional relaxation attainable in *yoga nidra* enables a balance of psychic and vital energies within the psychic channels (*nadis*) of the energy framework underlying the physical body. Free flow of these energies forms the basis of optimal physical and mental health. The *yoga nidra* state appears to reflect an integrated response by the hypothalamus, resulting in decreased sympathetic nervous activity and increased parasympathetic function (Saraswati, 2006). This 'relaxation response' can be thought of as the inverse counterpart of the so-called 'fight or flight' response (Saraswati, 2006). The level of relaxation attained in *yoga nidra* serves to lessen the harmful effects of this 'fight or flight' response. It has been clarified that *yoga nidra* could be practiced in *savasana* (the corpse pose; in which all the parts of body becomes immobile and relaxed) without the prior practice of any other *asana*. For relaxation of the body and the mind, the prior practice of *suryanamaskar* (salutation to the sun), some *asanas* (steady and comfortable body posture), *pranayama* (breathing exercise), *Om chanting* (vibrations of the Om; it is a cosmic sound which drives away all worldly thoughts and removes distraction), and *meditation* were recommended (Panda, 2002).

Thus, *yoga nidra* works for both the mind and body, striving to cultivate balance and control in one's life. *Yoga nidra* possesses the unique ability to calm the nerves as they function as the medium between the physiological body and the psychological body. Yogic science believes that the regular practice of *asana* and *pranayama* strengthens the nervous system and helps people to positively cope with stressful situations. Yoga is highly recommended for people in stressful working environments for maintaining their healthy life styles (Johnson & Johnson, 1984; Shenbagavalli & Divya, 2010). Practicing *yoga nidra* has

the holistic impact of relaxing the body and calming the mind (Saraswati, 1984, 2006). Thus, the present study examined the effect of *yoga nidra* on the physical and psychological health of middle age people. In view of these facts, it was expected that *yoga nidra* would have beneficial effect on the physical and psychological health of middle-aged people.

Method

Sample

Initially, 150 middle-aged males were approached for the study. However, the following exclusion criteria were considered before the administration of the pre-test: (i) history of active sports training; (ii) previous exposure of yoga training; (iii) history of major medical illness in the past (e. g., tuberculosis, bronchial asthma, spinal problems); and (iv) history of major surgery in the recent past. Therefore, only 135 participants were contacted for the training program and post-test on the basis of their health card report. Through pre-testing, 17 participants were actually diagnosed as diabetics and therefore excluded. For the training program and post-test, 117 participants were selected, but the study ultimately included 116 participants (randomly selected) in order to divide the participants into control and experimental groups with an equal number of participants in each. During the actual training program, seven participants dropped out. At the time of post-test, only 100 participants were available. With respect to rest of the participants, seven of them did not attend the training session regularly, and two participants were unable to come for the post-test due to family problems.

Thus, the present study analyzed 100 male participants aged 35-45 years. They were selected from various professional institutions of Varanasi (a city of north India) by getting their consent to participate in this study. They were serving white collar jobs. In order to examine the effect of *Yoga nidra* on their physical and psychological health, participants were divided into two groups: experimental ($n = 50$) and control ($n = 50$). The training program was introduced to the experimental group only. The physical and psychological health measures were used to examine the participants by using a pre- and post-test design. Both pre- and post-tests were done in the morning session (approximate time: 7:30-8:30 AM) during the months of April, May, and June. The post-test was conducted on the consequent day to the training program.

Measures

In this study, physical health was measured in terms of optimal blood pressure, heart rate, vital capacity, and breath holding capacity. Psychological health was measured in terms of reduced level of anxiety and positive self-concept. These variables were operationally defined in the following manner:

Physical health measures

Blood pressure is the measurement of the force applied to the walls of the arteries as the heart pumps through the body. The pressure is determined by the force of blood pumped, as well as the size and flexibility of the arteries. There are two types: *systolic* (normal range: 86-90) and *diastolic* (normal range: 125-130).

Heart rate is the number of heartbeats per unit of time, usually expressed as beats per minute (normal range: 75-80).

Vital-capacity is the maximum value of air that can be expelled from the lungs following a maximum inspiration (normal range: above 3000).

Breath holding capacity refers to the time that a person can hold his/her breath without inhalation (normal range: 30+) or exhalation (normal range: 20+).

The participants' blood pressure and vital capacity were measured by using a Sphygmomanometer and Spirometer, respectively. The resting heart rate and breath holding capacity of the participants were examined by manual counting with the help of a stopwatch. All of the measurements were used by an expert to examine the participants.

Psychological health measures

Anxiety is a vague fear associated with the emotions of terror, alarm, fright, panic, and dread. It has also been characterized by a feeling of uncertainty and helplessness in an adverse situation. An **Anxiety Scale** was designed to elicit self-ratings on items descriptive of anxiety reactions to the various areas as health, ambition, family anxieties, friendship and love, and social relations. It consisted of 100 items with 'Yes' and 'No' type responses, and the score range was 0 to 100. The reliability of the test was found to be 0.85 and inter-item correlation was ranged between 0.80 to 0.90. Higher scores were indicative of high levels of anxiety, and lower scores indicated a low level of anxiety.

Self-concept refers to an individual's way of looking at oneself that signifies one's way of thinking, feeling, and behaving. Each person's self-concept is different since everyone has some traits which distinguish themselves from others. In the present study, self-concept was measured in terms of self-awareness and self-evaluation (self-esteem). A **Self-Concept Rating Scale** was developed to examine participants' self-concept in terms of self-awareness and self-evaluation. It contained 60 traits based items on various dimensions such as: physical, power, ability, social, and psychological self-concept. Item examples are: "How much you are attractive?"; "How much are you creative?"; "How much are you dynamic?". These items were evaluated on 3-point rating scales (3=high/very much, 2=average, and 1=low/little bit). The score range was 60 to 180, and higher scores indicated positive self-concept, whereas lower scores indicated negative self-concept. Cronbach's alpha was 0.83.

Training Program

The training program was scheduled for 12 weeks, 5 days a week, in a conference room at a college. Yogic practices were introduced to the participants over approximately 1 hour in the morning. All of the participants were encouraged to attend the session regularly.

Participants were asked to bring yoga mats and pillows to feel comfortable while lying down. For the participants who did not bring their own accessories, they were provided by the investigator. The yogic practices were taught by experts. The participants were taught the following preparatory steps to *yoga nidra*:

Surya namaskara: *Surya namaskara* is a series of twelve postures, each of which corresponds to one of the twelve signs of the zodiac. While practicing each of the twelve postures, a *mantra* is uttered verbally or mentally. The *mantras* are meant to salute the sun. Non-Hindus, agnostics, or atheists may dispense with these *mantras* if they like (Panda, 2002). The participants followed the twelve postures and uttered mantras.

Asana: *Asana* (steady and comfortable body posture) is mainly meant to help in reducing *rajas*, or the quality of turbulence that disturbs the mind. It consists of various static postures and physical movements designed to release tension, improve flexibility, maximize the flow of energy, and remove friction. *Asanas* bring balance and harmony to the physical body, particularly the musculoskeletal system that is the support of the body. It works to improve circulation to disease-affected areas in order to release toxins and improve the healing and growth of tissues. The participants performed various *asanas* for relaxation.

Pranayama: *Pranayama* (breathing exercise) is breath control that focuses on massaging the internal organs through the actions of inhalation and exhalation. This massaging action improves circulation to the organs and dispels toxins, bringing the *doshas* (energies) to the digestive tract for elimination. These *doshas* that govern physiological and psychological functions of the body are: *Vata* (composed of space and water), *Pitta* (composed of water and fire), and *Kalph* (composed of water and earth). It sets up a deep and powerful organic rhythm to sustain not only health and strength but calmness of mind. *Pranayama* is excellent to counter depression, release grief, reduce tension, and enhance positive feelings. The participants did *Pranayama* for maintaining calmness of mind.

Om Chanting: *Om chanting* is the most important of all mantras. All mantras begin and often also end with *Om* in order to drive away all worldly thoughts and distractions. The *Pancha Koshas* (five layers of personality) vibrate rhythmically when *Om* is chanted. *Pancha Kosha* is the concept in yogic philosophy in relation to the five layers, or sheaths, around the human soul. The term comes from the Sanskrit *pancha*, meaning "five," and *kosha*, meaning "sheath." *Pancha Kosha* consists of: (i) *Annamay Kosh* (food Sheath; outermost of the *Pancha koshas*), (ii) *Pranmay Kosh* (vital air sheath or the life force), (iii) *Manomay Kosh* (mind as distinctly different from intelligence - Sheath), (iv) *Vigyanmay Kosh* (Intellect Sheath), and (v) *Aanandmay Kosh* (bliss sheath or ceaseless joy not connected with body or mind; innermost of the *Pancha koshas*). Therefore, chanting of *Om* infuses new vigor in the body.

Meditation: Meditation is the essential and culminating practice of the greater system of yoga. It refers to the capacity to sustain attention without distraction, which enables the individual to mirror reality and objectively perceive (neutral interpretation of the situation rather than biased) the truth of things. Meditation, in the highest sense, is the natural state of awareness, not a technique. It is an important therapy for physical and psychological health.

These preparatory steps are important to practice prior to *yoga nidra* (Panda, 2002). A constant communication is taking place between the instructor and the participants. The room should be neither hot nor cold, and there should be no draft directed toward the body. The basic steps in the sequence of the *yoga nidra* techniques are as follows (Saraswati, 2006); these steps were practiced by the participants during training program (details are given in Appendix A):

Preparation (*Prastuti*): Preparation is the process of getting ready for *yoga nidra*. *Yoga nidra* is performed in *Savasana* (a state of relaxation) which minimizes touch and visual sensations by eliminating contact between the limbs of the body and simply closing the eyes. When all sensory impressions are forcibly excluded, the mind becomes restless and disturbed. Therefore, the mind is directed to think of external sounds and to move from one sound to another sound with the attitude of a witness. Within a few minutes, the mind loses interest in the external world and automatically becomes quiet, a period known as *antar-mauna*. This prepares the consciousness for practicing *yoga nidra*.

Relaxation (*Sithilikarana*): In the state of relaxation, an individual becomes aware of his own body and relaxes himself completely, slowly increasing the awareness of the physical body right from the top of the head to the tips of the toes by chanting *Om*. A minimum period of five minutes is recommended for this step of *yoga nidra*.

Resolve (*Sankalpa*): At this stage, one should make a resolve according to one's own needs and inclinations. The wording of the resolve should be short, clear, and positive, as well as in simple language (e.g., "I will be a good human being"), otherwise it will not penetrate the subconscious mind. Once the resolve has been chosen, it must not be changed. It is mentally repeated three times with awareness, feeling, and emphasis. The result depends on the sincerity and deep-felt need to attain the goal of the resolve. A resolve (*sankalp*) was taken by each participant, though it might have varied from one participant to another, as it was verbalized mentally.

Rapid shifting of consciousness (*cetana-sancarana*): During this moment, three requirements need to be fulfilled: (a) remain aware, (b) listen to the inner voice (i.e., what was processed within the mind of each participant during that moment), and (3) move the mind very rapidly according to the instructions. The rotation of consciousness proceeds in a definite sequence, beginning with the right thumb and ending with the little toe of the right foot, then the circuit from the left thumb to the little toe of the left foot. Subsequent circuits proceed from the heels to the back of the head, and from the head and individual facial features to the legs.

Awareness of the breath (*nadi-prasodhana*): Awareness of the breath is the physical relaxation which is continued and completed by drawing attention to the breath. Relaxation is attained by simultaneously counting the breaths. Awareness of the breath not only promotes relaxation and concentration, but also awakens higher energies and directs them to every cell of the body.

Awareness of feelings and sensation (*Saviloma-ganana manasika*): In this stage, relaxation comes through the awareness of feelings and sensation. Usually this is practiced with pairs of opposite feelings, such as heat and cold, pain and pleasure. The pairing of feelings in *yoga nidra* harmonizes the opposite hemispheres of the brain and helps in

balancing our basic drives and controlling functions that are normally unconscious because it works as a means of catharsis to relieve the memories of profound feelings.

Moving visualization of scenarios (*kalpanika caladdrsyadarsana*): The last stage of *yoga nidra* induces mental relaxation. The individual visualizes images (e.g., landscapes, oceans, flowers) described by the instructor. The practice of visualization develops self-awareness and relaxes the mind by relieving painful memories. In advanced stages, visualization develops into *dhyana*, or pure mediation.

Finish (*samapti*): The visualization practice is usually finished with an image that evokes profound feelings of peace and calmness. This makes the unconscious mind more receptive to positive thoughts and suggestions. Therefore, the practice of *yoga nidra* ends with a resolve (e.g., "I will be a good human being"). It is very important that the resolve be stated clearly and positively.

The practice of *yoga nidra* is concluded by gradually bringing the individual from the condition of psychic sleep to the waking state.

In this regard, the training program was started by following the above steps with an intention, or *sankalpa*, to set the tone for the practice. The participants moved into the physical body in a rotation of consciousness, allowing each part of the body to soften and surrender for *yoga nidra* (from the condition of psychic sleep to the waking state). With regular practice of *yoga nidra*, each participant acquired the ability to traverse through the *Koshas* (sheaths or layers) and better understand their true self that helps them to live their life positively.

Results

The data was analyzed by using descriptive statistics, as well as an analysis of variance (ANOVA) and analysis of co-variance (ANCOVA) to assess the significant mean differences between control and experimental groups (with the pre-test as a covariate). The level of significance was set at 0.01 (see Tables 1 and 2).

Blood Pressure (Systolic)

A significant difference was found for post-test systolic blood pressure between the control and experimental groups, $F(1, 98) = 109.27, p < 0.001$. However, no significant difference was found between the pre-test measures for the control and experimental groups. With respect to Adjusted Post Test Means (APTM) of the control ($M = 144.43, SD = 4.85$) and experimental ($M = 135.23, SD = 4.12$) groups, a significant difference was quite evident, $F(1, 97) = 102.06, p < 0.001$ (see Table 1).

Table 1
Comparison of Experimental and Control Group in Pre-, Post- and Adjusted Post-test for Different Measures.

		Control <i>n</i> = 50 <i>M</i> (<i>SD</i>)	Experimental <i>n</i> = 50 <i>M</i> (<i>SD</i>)	F value
Blood Pressure (systolic)	Pre-test	145.58 (4.82)	143.92 (4.67)	3.05
	Post-test	144.54 (4.85)	135.12 (4.12)	109.26*
	Adjusted Post-test	144.43 (4.85)	135.23 (4.12)	102.05*
Blood Pressure (diastolic)	Pre-test	91.68 (3.51)	92.16 (3.46)	0.474
	Post-test	91.28 (3.81)	85.88 (2.14)	76.216*
	Adjusted Post-test	91.26 (3.80)	85.90 (2.143)	74.609*
Vital Capacity	Pre-test	2170 (283.74)	2772 (288.58)	1.17
	Post-test	2754 (265.89)	3602 (283.58)	238.27*
	Adjusted Post-test	2765.37 (265.73)	3590.62 (282.42)	258.51*
Resting Heart Rate	Pre-test	88.04 (3.392)	87.12 (2.600)	2.31
	Post-test	87.74 (2.50)	77.72 (1.82)	521.47*
	Adjusted Post-test	87.73 (2.50)	77.73 (1.82)	502.69*
Breath Holding Capacity (Positive)	Pre-test	28.54 (2.76)	28.50 (2.76)	0.29
	Post-test	29.50 (2.77)	39.48 (2.58)	345.16*
	Adjusted Post-test	29.54 (2.77)	39.43 (2.58)	372.99*

* $p < .01$

Blood Pressure (Diastolic)

A significant difference was found for post-test diastolic blood pressure between the control and experimental groups, $F(1, 98) = 76.216, p < 0.001$. Again, no significant difference was found between the pre-test measures for the control and experimental groups. With respect to Adjusted Post Test Means (APTMs) of the control ($M = 91.26, SD = 3.80$) and experimental ($M = 85.90, SD = 2.14$) groups, a significant difference was found, $F(1, 97) = 74.61, p < 0.001$ (see Table 1).

Vital Capacity

A significant difference was found for post-test vital capacity between the control and experimental groups, $F(1, 98) = 238.28, p < 0.001$. No significant difference was found between the pre-test measures for the control and experimental groups. A significant difference was evident with respect to the Adjusted Post Test Means (APTMs) of the control ($M = 2765.37, SD = 265.73$) and experimental ($M = 3590.62, SD = 282.42$) groups, $F(1, 97) = 258.51, p < 0.001$ (see Table 1).

Resting Heart Rate

There was a significant difference in post-test resting heart rate between the control and experimental groups, $F(1, 98) = 521.47, p < 0.001$. There was no significant difference between the pre-test mean scores of the control and experimental groups. With respect to the Adjusted Post Test Means (APTMs) of control ($M = 87.73, SD = 2.50$) and experimental ($M = 77.73, SD = 1.82$) groups, a significant difference was quite evident, $F(1, 97) = 502.693, p < 0.001$ (see Table 1).

Breath holding (positive)

There was a significant difference in post-test breath holding (positive) between the control and experimental groups, $F(1, 98) = 345.16, p < 0.001$. There was no significant difference between the pre-test mean scores of the pre-test for the control and experimental groups. With respect to the Adjusted Post Test Means (APTMs) of the control ($M = 29.55, SD = 2.77$) and experimental ($M = 39.43, SD = 2.58$) groups, a significant difference was reported, $F(1, 97) = 373.00, p < 0.001$ (see Table 1).

Breath Holding (Negative)

There was a significant difference in post-test breath holding (negative) between the control and experimental groups, $F(1, 98) = 133.18, p < 0.001$. However, there was no significant difference between the pre-test mean scores for the control and experimental groups. A significant difference was found with respect to the Adjusted Post Test Means (APTMs) of the control ($M = 19.17, SD = 1.49$) and experimental ($M = 22.85, SD = 1.73$) groups, $F(1, 97) = 142.76, p < 0.001$ (see Table 2).

Table 2

Comparison of Experimental and Control Group in Pre-, Post- and Adjusted Post-test for Different Measures.

		Control <i>n</i> = 50 <i>M</i> (<i>SD</i>)	Experimental <i>n</i> = 50 <i>M</i> (<i>SD</i>)	F value
Breath Holding Capacity (Negative)	Pre-test	18.90 (1.78)	19.00 (1.82)	0.30
	Post-test	19.14 (1.49)	22.88 (1.73)	133.18*
	Adjusted Post-test	19.17 (1.49)	22.85 (1.73)	142.76*
Anxiety	Pre-test	51.54 (9.53)	44.54 (16.91)	1.97
	Post-test	55.40 (13.00)	16.22 (6.83)	185.77*
	Adjusted Post-test	44.87 (8.86)	15.88 (6.23)	199.17*
Self-Concept	Pre-test	101.94 (11.80)	100.20 (11.79)	0.47
	Post-test	107.48 (11.62)	134.18 (14.87)	68.56*
	Adjusted Post-test	107.52 (11.62)	134.13 (14.87)	67.17*

* $p < .01$

Anxiety

A significant difference was found in post-test anxiety between the control and experimental groups, $F(1, 98) = 185.77$, $p < 0.001$. There was no significant difference between the pre-test mean scores for the control and experimental groups. With respect to the Adjusted Post Test Means (APT_M) for the control ($M = 44.87$, $SD = 8.86$) and experimental ($M = 15.88$, $SD = 6.23$) groups, a significant difference was found, $F(1, 97) = 199.17$, $p < 0.001$ (see Table 2).

Self-Concept

There was a significant difference in post-test self-concept between the control and experimental groups, $F(1, 98) = 68.56$, $p < 0.001$. There was no significant difference between the pre-test mean scores for the control and experimental groups. With respect to

the Adjusted Post Test Means (APTM) for the control ($M = 107.52$, $SD = 11.62$) and experimental ($M = 134.13$, $SD = 14.87$) groups, a significant difference was quite evident, $F(1, 97) = 67.17$, $p < 0.001$ (see Table 2).

Discussion

The findings of the study suggest that *yoga nidra* has a positive effect on physical health measures (blood pressure, heart rate, vital capacity, and breath holding capacity) and psychological health measures (anxiety and self-concept). Results revealed that regular practice of *yoga nidra* normalized the resting heart rate and blood pressure of the middle-aged people involved in this study. Enhancement in vital capacity and breath-holding capacity was also reported in the present study. Results also indicated that yogic practices (*yoga nidra*) had a facilitating role in reducing anxiety levels and enhancing positive self-concept of the participants.

Findings indicate a significant improvement in normalizing blood pressure and heart rate through the training program. Practicing *yoga nidra* reduced anxiety and increased relaxation, which may have a beneficial effect on blood pressure and heart rates. In the present study, it is possible that the effect of *yoga nidra* may be evident most in those participants who had high blood pressure during the pre-test and were vulnerable to hypertension. Findings similar to those of the present study have been reported in other studies that analyzed healthier adults (Bhargava, Gogate, & Mascarenhas, 1988; Arambula et al., 2001; Pawlow & Jones, 2002; Shenbagavalli & Divya, 2010). A significant improvement in vital capacity and breath holding capacity was reported. Practicing *yoga nidra* especially *pranayama* improves respiratory function by increasing vital capacity and breath holding capacity. Studies (Birkel & Edgren, 2000; Czamara, 2003; Cysarz & Bussing, 2005; Shenbagavalli & Divya, 2010) reported that *pranayama* caused general health improvement through the enhancement of lung functions and the improvement of respiratory capacity.

The findings of the present study revealed that participants' anxiety levels significantly decreased due to exposure to the training program. Practicing *yoga nidra* promotes physical and mental relaxations, improves circulation, and reduces stress and anxiety. Researchers (Chinmayananda, 1984; Nagendra & Nagarathna, 1997) suggested that the practice of yoga interspersed with relaxation while supine, so as to have a combination of "activating" and "pacifying" practices, may help reach mental equilibrium. Other studies have also reported that yoga provides a flexible approach to a wide variety of physical and psychological problems with surprisingly favorable results in the relief of anxiety, stress, fatigue, and irritability (Miller, Fletcher, & Kabat-Zinn, 1995; Sakai, 1997; Khasky & Smith, 1999; Takeichi & Sato, 2000; Stetter & Kupper, 2002; Shenbagavalli & Divya, 2010). This study also suggests that yogic practices had a facilitating role in enhancing positive self-concept. *Om* chanting contributes to creating a positive stimulation and vibration on the nerve plexus and chakras, which may encourage positive thinking (Adhikari, 2008). Findings of the present study are also supported by another study (Bhagal, Gore, Oak, Kulkarni, & Bera, 2004).

Other studies have also reported beneficial effects of yoga training on physical and mental health (Joshi, Joshi, & Gokhale, 1992; Sakai, 1997; Malathi & Damodaran, 1999; Arambula, Peper, Kawakami, & Gibney, 2001; Malhotra, Singh, Tandon, Madhu, Prasad, & Sharma, 2002; Stetter & Kupper, 2002; Rizzolo, 2008).

It can be concluded that the training program was significantly effective for promoting desirable changes with respect to physical health measures (i.e., blood pressure, heart rate, vital capacity, and breath holding capacity) and psychological health measures (i.e., anxiety and self-concept). Thus, *yoga nidra* is recognized as a beneficial art and means of relaxation by improving physical and psychological health. This ultimately helps to have a counterfoil to existing stress, pressure, or tension and to promote positive experiences for a healthy life. The implication of this study is that *yoga nidra* can be promoted as a cost effective and easily accessible way of preventing and treating some symptoms of physical and mental illness, ultimately enhancing physical and mental health.

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Appendix A

Steps of Yoga Nidra	
Preparation	Shavasana, general instructions, admonitions not to move or go to sleep
Relaxation	Om or breathing
Resolve	Make your own resolve
Rapid shifting of consciousness	Right side, left side, back, front, major part, front and back, right side reverse, left side reverse, whole back, whole front, inner parts.
Awareness of the breath	Navel, chest, throat and nostril, Throat, navel; mental alternate nostril; eyebrow centre
Awareness of feelings and sensations	Heaviness/lightness, cold/heat, pain/pleasure
Moving visualization of scenarios	Park/temple; mountain; floating body; well/ocean; eyebrow centre/Om/golden egg; well/golden egg; inner space (optional) Position and form of psychic centres or chakras, rotation through them Circles of Om centred on eyebrow centre
Resolve	Repeat resolve
Finish	Breathing, body and room awareness