



# Effectiveness of Yoga Nidra on mental health and scope in postnatal population: A narrative review

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*Abstract:* This study has been undertaken to explore the role and effectiveness of Yoga Nidra on mental health and its future implications in the early postnatal population. The current body of literature is reviewed to evaluate the impact of Yoga Nidra on stress, anxiety and depression. Proposed hypothesis for future research including Yoga Nidra as the main intervention for the postnatal population is given in this review. The term Yoga Nidra has been used in many studies to refer to the simple and effective technique of complete relaxation. It is made simple and available to all by Swami SatyanandaSaraswati. This study is based on the content analysis of similar researches already conducted in the past. Origin and technique of Yoga Nidra is reviewed and findings of the studies examining the psychological effects of Yoga Nidra among women are discussed in relation to stress, anxiety and depression.

*Keywords -* Yoga Nidra, Relaxation, mindfulness, Neuropsychiatric

## INTRODUCTION

Yoga Nidra is derived from Tantric Kriyas and simplified by Swami Satyananda to make available for all. Yoga Nidra is different from asana and pranayama. It is Pratyahara (the fifth state of Astanga Yoga), defined as detachment from the senses. [1] Yoga Nidra has a substantial effect on mental relaxation and it brings alpha dominance in the brain.[2] Alpha waves (8-13 Hz) are more synchronous in the occipital region of the brain when a person is awake but relaxed, with his or her eyes closed, and are indicative of a relaxed mental state.[3]

Stress is the major contributor to various physical and mental health disorders in the current lifestyle. A stressor directly stimulates a cascade of neurohormonal and inflammatory changes in the body, which further induces a secondary response of physiological changes such as cardiovascular disorders, respiratory disorders, lower immunity, and more prominently, neuropsychiatric disorders like depression and anxiety.[4] Stress has been defined by Selye as “the non-specific response of the

body to any demand for change".[5] According to the definition of DSM-5 "Fear is the emotional response to a real or perceived imminent threat, whereas anxiety is the anticipation of a future threat".[6]

It is found that women are 1.5 to two times more likely than men to receive a diagnosis of anxiety disorder. [7] Depression and anxiety are the most common psychiatric disorders during pregnancy and postpartum.[8] Depression is responsible for the majority of suicide deaths, adversely affects immune system function, and significantly affects family life.[9] The DSM-5 proposes the term "peripartum onset" as a major depressive episode during pregnancy or in the weeks or months following delivery. This condition is characterized by a sad mood, anxiety, irritability, lack of positive emotions, loss of pleasure, interests and energy, decreased appetite, inability to cope, fear of hurting self and baby, and suicidal thoughts.[10]

Yogic philosophy and modern psychology believe that three types of tensions are responsible for all the agonies of today's life. As Swami Satyananda Saraswati emphasised: "three fold tensions" these are muscular tensions, emotional tensions and mental tensions. These are easily removed by the deep physical relaxation attained in the state of Yoga Nidra.[1] Yoga Nidra is not only proven effective in pain management but also the best-known technique to induce complete physical, mental and emotional relaxation. [11], [2]

## METHODS

A search of the current literature was made to identify the controlled trials of Yoga Nidra on stress, anxiety and depression. The following databases were searched: EMBASE, SCOPUS, Google scholar. The two terms "Yoga Nidra" and "psychological disorders" were linked together using the Boolean operator "AND" in order to search articles containing both terms. Other search terms like "Yoga Nidra and stress", "Yoga Nidra and anxiety", "Yoga Nidra and depression", "Yoga Nidra and women" were also searched for. Only articles included which used Yoga Nidra as main intervention, controlled trials, including female participants, English language and free full-text access. The eight studies meeting with inclusion criteria were reviewed and their contents were analysed with a view to understanding the role and significance of Yoga Nidra on mental health and its future implications in postpartum population.

## ORIGIN OF YOGA NIDRA

First time the word Yoga Nidra was mentioned in Devi Mhatmya. Devi Mhatmya is one of the great parts of MarkandeyaPurana.

Here Yoga Nidra is mentioned as:

Utpanneti Tada LokeSanityapybhidhiyate/

Yoganidram Yada Vishnurjagatyekarnavikrite//

MaharshiMarkandey according to his visualizations states in his text, that at the end of Kalpa when the entire universe was in a deep relaxation Lord Vishnu was lying on the bed of serpent in the state of Yoga Nidra.

It is mentioned as the first time in the Universe when Yoga Nidra came into the form. It was Yoga Nidra, which enabled Lord Vishnu to get victory over two evils Madhu and Kaitabh.

Secondly, this word Yoga Nidra was again depicted in a very small Yogic Text Yoga Tadavali authored by AdyaSankaracharya. He quoted Yoga Nidra as:

VichhinaSankalpaVikalpaMoole, NihsheshNirmulit Karma Jale/

NitantaratNitantBhadrasa, Jambhrite Yogini Yoga Nidra//

Meaning: “AdyaSankaracharya explains that for a long-time practice when being disappointed with every resolve and imagination and every obstacle of karma becomes destroyed, the Yogi gets the state of Yoga Nidra”.<sup>[12]</sup> Yoga Nidra is a simplified version of Tantric Kriyas, designed by Swami Satyananda, Bihar School of Yoga, Munger in present form.<sup>[13]</sup>

## YOGA NIDRA TECHNIQUE

According to Swami SatyanandaSaraswati, there are few important steps in Yoga Nidra practice.

1. **Preparation:** Yoga Nidra is performed in Shavasana, which minimizes touch sensations by eliminating contact between the limbs of the body.
2. **Resolve:** one must choose one's own Sankalpa. The wording of Sankalpa should be very precise, positive and clear. It should be in the form of a clear statement.
3. **Rotation of consciousness:** The rotation of consciousness in yoga Nidra proceeds in a definite sequence. During the practice, there are only three requirements to be filled: (i) remain aware (ii) listen to the voice (iii) move the mind very rapidly according to the instructions.
4. **Awareness of the breath:** Awareness of the breath not only promotes relaxation and concentration but also awakens higher energies and directs them to every cell of the body.
5. **Feelings and sensations:** Feelings that are intensely physical or emotional are recalled or awakened, experienced fully, then removed. This is practised with pairs of opposite feelings. This 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. This also develops willpower on the emotional pane.
6. **Visualization:** The practice of visualisation develops self-awareness and relaxes the mind, by purging it of disturbing or painful material.

- 7. Ending the practice:** The practice of Yoga Nidra ends with a resolve. This direct order from the conscious mind to the unconscious is the speed enabling one to radically change one's attitude, behaviour and destiny.

The practice of Yoga Nidra is concluded by gradually bringing the mind from the condition of psychic sleep to the waking state.

[1]

## EFFECTIVENESS OF YOGA NIDRA

Well-designed experimental studies defined the effectiveness of Yoga Nidra. An experimental online study design was conducted by Esther N. Moszeik et al in Germany. For the purpose, 11-minute short Yoga Nidra meditation was designed. The targeted population for this study was busy schedule people. There was no eligibility for selection of participants. Participants were recruited via the online platform, flyers and posters, internet forums, newsletters, yoga studios, universities, cafeterias, shopping centres, fairs and on the street. A large heterogeneous sample of 771 was taken. Participants' age ranged from 19 to 71 years. Most of the participants were employees. Yoga Nidra meditation was provided as an audio file to the intervention group (N = 341) and carried out during a period of 30 days. Participants were told to practice it once a day. After 30 days compared with the waitlist control group (N = 430). The outcome measures were the screening scale for chronic stress (SSCS) of the Trier Inventory of Chronic Stress, Positive and Negative Affect Schedule (PANAS), Satisfaction with Life Scale (SWLS), Pittsburgh Sleep Quality Index (PSQI), Mindful Attention and Awareness Scale (MAAS). Yoga Nidra group showed Lower stress level, higher well-being, improved sleep quality and increased mindfulness. It was also found that Yoga Nidra meditation is capable to reduce negative affect. All improvements found stable at follow-up six weeks later. [14]

Khushbu Rani conducted a study by enrolling 150 female participants, aged 18 to 45 years with menstrual problems or irregularities for more than six months from the Department of Obstetrics and Gynaecology, C.S.M. Medical University (erstwhile KGMU), Lucknow Uttar Pradesh, India. Participants were randomized into two groups. One group was on Yoga Nidra therapy and pharmacotherapy and the control group was on pharmacotherapy only. The intervention period was of six months. Hamilton anxiety scale (HAM-A) and Hamilton rating scale for depression (HAM-D) were administered at baseline and after six months. Significant improvement found in patients with mild to moderate anxiety and depressive symptoms. However, there was no significant change found in severe anxiety and depressive symptoms. [15]

In a three-arm experimental study, 60 healthy Brazilian men and women professors, aged 30-35 years were recruited. One group practised seated meditation second group practised Yoga Nidra and the third group was control (waiting list). All the sessions lasted for 45-50 min and it was instructed to practice twice a week. The intervention period was three months. The Beck Anxiety Inventory (BAI), Hamilton Anxiety Rating Scale (HAM-A), Body Sensations Questionnaire (BSQ) and Stress Symptoms Inventory for Adults Lipp (ISSL) were used to assess anxiety, stress and depression. Findings showed better results in Yoga Nidra group on anxiety and stress levels except for depression. Meditation group presented better intragroup results only in the anxiety levels. [16]

Kim Sang Dol conducted a non-equivalent control group pretest-posttest study in Korea. For the purpose, forty university students were recruited. Twenty participants practised 1-hour yoga Nidra session bi-weekly for 8 weeks in the intervention group and another 20 participants were in the control group. Life stress intensity level was measured by using a 10 cm Visual Analog Scale and Rosenberg's Self-Esteem Scale was used for Self-esteem assessment. The Yoga Nidra group showed a significant decrease in life stress intensity levels and an increase in self-esteem scores when compared with the control group. <sup>[17]</sup>

Khushbu Rani et al. conducted a randomized controlled trial in Uttar Pradesh, India. A total sample size of 150 female participants with menstrual irregularities was recruited. Psychological General Wellbeing Index (PGWBI) was administered at baseline and after six months to both the groups. Study findings evident that psychological problems significantly improved in the areas of their wellbeing, anxiety and depression. <sup>[18]</sup>

Amy R Borchardt et al conducted a three-arm experimental study. Two different meditation techniques were compared to an active control group. For the purpose, 75 female participants aged between 18-25 years were recruited. The physiological measure was salivary cortisol before and after group task and the psychological measure was Positive and Negative Affect Scale (PANAS). Participants were randomly assigned to Integrative Restoration Yoga Nidra group, Relaxation Response Meditation group and Audio book group. Results showed that meditation leads to greater physiological relaxation and better mood, a significant decrease in cortisol level and increase in mood found during Yoga Nidra practice. <sup>[19]</sup>

Findings from another study by Khushbu Rani et al suggests Yoga Nidra may be a method for improving headache, giddiness, nervousness and irritability or psychosomatic problems in female participants, suffering from menstrual disorders. The outcome was assessed by using Schedule for Clinical Assessment in Neuropsychiatry (SCAN) in this study. The Yoga Nidra group showed a significant decrease in the degree of pain symptoms in the participants. <sup>[20]</sup>

Yoga Nidra showed significant changes in anxiety, depression, positive well-being, general health, vitality scores and hormonal levels. Thyroid-stimulating hormone, follicle-stimulating hormone, luteinizing hormone and prolactin were significantly decreased in the Yoga Nidra group when compared with the control group. <sup>[21], [22]</sup>

## SCOPE IN THE POSTNATAL POPULATION

Postpartum period is a very sensitive period for a woman. Pregnancy and lactation are characterized by significant changes in the endocrine system, brain, and behaviour of females. Becoming a mother is considered a significant experience accompanied by a positive mood, although this life event has the potential to be physically and psychologically exhausting and distressing and could possibly be a risk factor for developing postpartum depression. <sup>[23]</sup> High-quality studies indicate a significant positive relationship between salivary cortisol and depressive symptoms 1–5 days postpartum. <sup>[24]</sup> If a baby is preterm and hospitalized in the Neonatal Intensive Care Unit, it becomes more stressful for a mother. <sup>[25]</sup> Yoga Nidra technique may be used at an early postpartum period to relieve physical, mental and emotional tensions. It may help to avoid mental health issues further, as Yoga Nidra has been proven to decrease cortisol level, stress, anxiety, depressive symptoms, pain, Improve sleep quality, Well-being and self-esteem. <sup>[20], [16],[15],[19],[14],[17]</sup> Lifting and climbing type activities, in the immediate postoperative period probably increase intraabdominal pressure and thus increasing the risk of wound dehiscence. <sup>[26]</sup> Thus, heavy physical exercises may not be appropriate during this period specially in caesarean sections. Yoga Nidra technique is very simple. One should lie flat on his back and follow the spoken

instruction of yoga instructor.<sup>[27]</sup> Mother can practice Yoga Nidra with the help of an audiotape on her own without any extra efforts. Swami SatyanandaSaraswati emphasised that during Yoga Nidra practice one can learn new skills.<sup>[1]</sup> Postpartum bonding may also be accelerated by giving positive, warm instructions to the early post-partum mothers. This may be effective in mothers with hospitalized neonates in the Neonatal Intensive Care Unit as the mother gets separated from the premature new-born just after giving birth.

**Conclusion:** This paper began with a theoretical discussion that the practice of yoga Nidra improves psychological problems. There are a number of studies mentioned throughout the paper that have focused on the effectiveness of Yoga Nidra. The practice also seems to improve sleep quality, mindfulness, well-being and self-esteem. No controlled trials found in early post-partum population including Yoga Nidra as the main intervention to improve maternal mental health. Based on the studies reviewed in this report, it is found that the regular practice of Yoga Nidra decreases the level of stress, anxiety and mild depression. Further experimental studies are needed to explore the effects of Yoga Nidra in postnatal population.

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