

Case Study

## Case Study Report - Combination Effect of Yoga Nidra and Pranayama in Managing the Anxiety Disorder

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### ABSTRACT

This study aims to understand the Combination effect of Pranayama & Yoga Nidra in helping the clients manage their Anxiety. Case study was employed as the method of research. Details of clients who visited a Mental Health Clinic were involved in the study. Beck's Anxiety Inventory is used to assess the level of anxiety. Analysis of the case studies shows that the pranayama & Yoga Nidra had positive effects in the management of Anxiety.

**Keywords:** Anxiety, Pranayama, Yoga Nidra, Mental Health

**Y**oga means union of Mind and Body; it aims to obtain balance and harmony between the mind and body. Sage Patanjali explained had the Ashtanga yoga in yoga sutras that is the eight limbs of yoga: Yama (attitudes toward our environment), Niyama (attitudes toward ourselves), Asana (physical postures), Pranayama (restraint or expansion of the breath), Pratyahara (withdrawal of the senses), Dharana (concentration), Dhyana (Meditation), Samadhi (Enlightenment). These eight steps basically act as guidelines on how to live a meaningful and purposeful life. They serve as a prescription for moral and ethical conduct and self-discipline; they direct attention toward one's health; and they help us to acknowledge the spiritual aspects of our life.

### Pranayama

Fourth limb is Pranayama, "life force extension," it not only rejuvenates the body but actually extends life itself. You can practice pranayama as an isolated technique (i.e., simply sitting and performing a number of breathing exercises), or integrate it into your daily hatha yoga routine.

*Few pranayama used in therapy were:*

- Deep Breathing - stimulates the vagus nerve and lowers stress responses
- Bhastrika Pranayama - Bellows Breath - balances the nervous system, calms down the mind
- Kapalbhata - Skull Shining breath - improves circulation especially to the brain
- Bhramari Pranayama - Humming bee breathing - helps to create instant calmness

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### ***Benefits of pranayama***

Pranayama reduces anxiety and increases positive affect and that these changes are associated with the activity and connectivity of a brain network involved in emotional processing, particularly the amygdala, anterior cingulate, anterior insula, and the prefrontal cortex. Resting-state fMRI revealed significantly reduced functional connectivity particularly involving the anterior insula and lateral portions of the prefrontal cortex which participate in awareness and attention. Improves sleep quality-the stress-relieving effects of pranayama may also help you sleep and increases mindfulness. Enhances cognitive performance, In addition to benefiting your lungs, pranayama may also enhance your brain function. Another study in 2013 found that 12 weeks of slow or fast pranayama improved executive functions- includes your working memory, cognitive flexibility, and reasoning skills. The study also found that pranayama has the ability to improve your perceived level of stress and your reaction time. Clinical studies shows a technique known as Bhramari pranayama was shown to slow down breathing and heart rate when practiced for 5 minutes. This may help calm your body for sleep.

### ***Yoga Nidra& Benefits***

Yoga Nidra means ‘Psychic sleep. It is an ancient technique where the practitioner enters the deep states of conscious relaxation. It is a systematic practice of moving awareness from our external world to the inner world. It brings us to a state of deep sleep where our senses, intellect and mind relax. We become free from the concepts of time, space and reason. When this happens, The brain activity reduces and the body goes in the healing state. Therefore, it is also said that one hour of Yoga Nidra can give the same benefit of a four-hour sleep. As the body enters a healing state, you can clear up the toxins at a cellular level, refresh the mind and remove baggage from the subconscious. There’s such a benefit when those are balanced overall for immunity, digestion and stress management. But in this deeper relaxation, the pineal gland is activated and that releases the hormone melatonin. Melatonin is a powerful antioxidant. It can also help manage immune function, blood pressure, cortisol levels and induce restful sleep.

A recent study showed that while meditation and Yoga Nidra were both effective in reducing anxiety and stress, Yoga Nidra seemed to be more effective in reducing anxiety. The study also suggested that Yoga Nidra can be an useful tool in reducing both cognitive and physiological symptoms of anxiety.

### ***Anxiety disorders***

Anxiety is a normal reaction to stress and can be beneficial in certain situations. It can alert us to danger and help us prepare and pay attention. Anxiety disorders differ from normal feelings of nervousness or anxiousness and involve excessive fear or anxiety. Anxiety disorders are the most common of mental disorders and affect nearly 30% of adults at some point in their lives. But anxiety disorders are treatable and a number of effective treatments are available. Treatment helps most people lead normal productive life. Anxiety refers to anticipation of a future concern and is more associated with muscle tension and avoidance behavior. Fear is an emotional response to an immediate threat and is more associated with a fight or flight reaction – either staying to fight or leaving to escape danger. Anxiety disorders can cause people to try to avoid situations that trigger or worsen their symptoms. Job performance, school work and personal relationships can be affected. In general, for a person to be diagnosed with an anxiety disorder the fear or anxiety must be out of proportion to the situation or age inappropriate hinder ability to function normally.

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**Ramesh Chandrababu et al., (2019)** found the evidences to support the use of pranayama for decreasing anxiety among patients undergoing cardiac surgery.

**Morgana M. Novaes et al., (2019)** suggested that pranayama significantly decreased states of anxiety and negative affect. The practice of pranayama also modulated the activity of brain regions involved in emotional processing, particularly the amygdala, anterior cingulate, anterior insula, and prefrontal cortex.

**Mahesh Narain Tripathi et al., (2018)** suggested that yoga has positive effects on a psychophysiological level that leads to decreased levels of stress and increased academic performance in college student.

### *Rationale for the Study*

To understand the combination effect of Relaxation of conscious and subconscious through Pranayama & Yoga Nidra respectively.

### *Need for the Study*

To encourage more practice of Indian Intervention methods for mental well-being.

## **METHODOLOGY**

**Objective:** To ascertain the effect of Pranayama & Yoga Nidra in managing the Anxiety.

**Research procedure:** Case Study

## **CASE STUDY- I**

### *Socio-Demographic Data*

Client AN, 23 years old female-B.Com-house wife-upper socioeconomic status.

### *Chief Complaints*

According to informant, who were husband and self-Client showed no interest in anything like house hold chores, taking care of baby, she feels anxious when husband leaves for office and keeps calling him. She started crying a lot on trivial things, sleep is disturbed, wakes up at night feeling scared.

### *History of Present Illness*

She feels lonely, she stays along with her husband in different town, she says she miss her parents a lot and she weeps often, after the delivery it has increased. The patient describes one year history of anxiety symptoms, which began after a bike accident. She experiences apprehensiveness when out of her home, inability to cope with anything out of the ordinary, initial insomnia and irritability, and she found herself withdrawn socially. Most recently she has had trouble concentrating on her work.

At her home also, she feels scared to light the gas stove so she sits at a place and would not cook anything. After probing she says she has watched in movies that lighting a gas would leak and gas explodes. It is difficult to take care of her kid so she always needed some assistance.

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**No past psychiatry and medical history seen**

### ***Biological Functioning***

Sleep: disturbed, Appetite: decreased, Sexual interest and activity: Normal, Energy: low

### **MENTAL STATUS EXAMINATION**

#### **General Appearance & Behaviour:**

General appearance: neatly dressed, normal gait and gesture. Lack of eye contact.

The client was comprehensive to simple rules from the Therapist and was cooperative for the session.

**Speech:** The speech was normal. Intensity and communication speed was little high.

**Mood / Affect:** Restless

**Thought:** Content- The client was preoccupied

**Perception:** No perceptual disturbances were seen.

### **COGNITIVE FUNCTIONS**

The client is oriented to time, place and date, Attention & Concentration is aroused and sustained, Memory- Immediate memory- intact Recent memory- intact Remote memory: intact Abstraction- intact, General fund of knowledge- adequate, Judgment- Inappropriate.

**Insight:** Present

#### **Diagnostic Scales:**

BECK'S ANXIETY INVENTORY (BAI) – **39 (Severe anxiety)**

**Diagnosis:** client is diagnosed with Generalized anxiety Disorder.

### ***Treatment Plan***

Client underwent 12 therapy sessions followed by regular home practice twice a day.

During the therapy sessions: Pranayama techniques like Diaphragmatic breathing/Deep breathing - inhalation through nose and exhalation through mouth (fast & Slow) and Bhramari were demonstrated and practiced, the duration and the breathing count was increased gradually depending upon the client's capacity.

All the therapy sessions included the Yoga Nidra relaxation, after the pranayama session.

**Outcome:** Client after regular practice sessions of Yoga Nidra and Pranayama found to have lowered levels of Depression and Anxiety.

## **CASE STUDY – II**

### ***Socio-Demographic Data***

Client AT, 26 years old, Male, Hindu, used to work in Data Information. Currently preparing for an exam. Unmarried, Upper-Middle Class.

Informant: self

### ***Chief Complaints***

1. Severe anxiety which affects his concentration in studies.
2. When stressed, experiences pain near his ears which has no medical cause.
3. Unable to make small decisions or even cannot choose anything.

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4. Has not been able to bond with anyone and experiences extreme anxiety while talking to someone new. He is anxious to even ask direction, communicate with shopkeepers, take public transport etc. He is not able to maintain eye contact while interacting.

### **HISTORY OF PRESENT ILLNESS:**

Has been suffering from all these symptoms ever since he was an adolescent.

**Medical Illness:** Nil

### **PERSONAL HISTORY:**

- Due to his anxiety in meeting people and inability to maintain relationships with people, he feels like he couldn't be his true self and underperformed in his school and college.
- He is the eldest child in his house. He has a younger sister who is in high school.
- Client stays with parents.
- Father also had displayed similar (if not same) symptoms although he has never got it diagnosed and treated.

**Educational History:** B.Tech in Bio Technology from VIT University

Both of his elder cousin brothers are IIT passedout, which put a little pressure on him to do well in his studies and work.

### **MENTAL STATUS EXAMINATION (MSE):**

#### **General appearance/ observations:**

Dressed neatly, looks tired, sleep deprived and worn out.

Does not maintain proper eye contact, speaks extremely fast and is very anxious which lead him to stuttering.

**Speech:** Normal.

**Mood / Affect:** Anxious

**Thought:** Lack of clarity

**Perception:** No perceptual disturbances were seen.

### **COGNITIVE FUNCTIONS:**

- The client is oriented to time, place and date
- Attention & Concentration is aroused and sustained
- **Memory:** *Immediate memory:* Intact *Recent memory:* Intact *Remote memory:* Intact
- **Abstraction:** Intact
- **General fund of knowledge:** Adequate
- **Judgment:** Appropriate
- **Insight:** Present

**DIAGNOSTIC SCALES:** BECK'S ANXIETY INVENTORY (BAI) – 41 (Sever anxiety)

**Diagnosis:** Client is diagnosed with sever Social Anxiety.

### **TREATMENT:**

The client was asked to do slow *abdominal breathing* for a prescribed set of times, and slowly introduced to *Bhastrika* and *Kapalbhati* Pranayama in the duration of 6 months.

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**Counselling:** Regular counselling sessions have also been scheduled with the counsellor to help him with his present life problems caused by anxiety.

### ***Dietary and lifestyle changes:***

The client has been asked to drink 4 liters of water a day. He was also encouraged to eat pomegranates along with other lifestyle changes.

**OUTCOME:** Client after regular practice session of Yoga Nidra and Pranayama, was able to manage his anxiety and scored 21 in Becks Anxiety Inventory in the post treatment assessment.

## **CASE STUDY – III**

### ***Socio-Demographic Data***

- Client W K, 47 years old, Male, working as an environmental engineer, Married
- Client stays in Dubai away from his family, Upper-Middle Class
- Mental disorder in Family: No
- Informant: Client

### ***Chief Complaints***

He has been having IBS (Irritable Bowel Syndrome) for the past 20 years for which he has exhausted all medical possibilities. He was finally told that it is mind-body related and was referred to see a mental health specialist.

**MEDICAL HISTORY:** He started having gastric problems and irritation in the lower abdominal area 20 years ago. He started to exercise to maintain better physical health soon after during which he damaged his lower oesophageal sphincter (LES) while doing crunches. He also has breathing difficulty while sleeping and has to sleep on his back. He also has chest tightness and feels muscle spasms. He has gone to a lot of doctors, gastroenterologists and has also tried Ayurveda and Siddha medicines but everything was reported back to be normal and his condition never improved. He has had endoscopy done 3 times, ECG, Echo test, X Ray chest, X Ray KUB, barium swallow test, colonoscopy, and a number of blood tests and everything came back to be normal. Recently he had gone to a doctor who had suggested his complaints may be mind-body related after which he started to do simple EFT (Emotional Freedom Techniques) from the internet. Since this gave him great relief and some progress compared to earlier, he decided to visit a professional.

### ***Personal History:***

He has 3 elder sisters and 1 younger sister. He is the 4th child in his family.

His father passed away a few years ago. He has 3 children – a pair of twin boys and 1 girl.

**Educational History:** B.Tech., M.Phil., PhD in environmental engineering.

He has always been a bright student and always topped his class both in school and college.

**Sexual History:** Sexually active with wife (normal)

### **MENTAL STATUS EXAMINATION (MSE):**

#### **General Appearance/ Observations:**

Dressed neatly, maintains proper eye contact, very intelligent and well spoken

Has social support, Normal attention and concentration

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### DIAGNOSTIC SCALES

BECK'S ANXIETY INVENTORY (BAI) – 21 (moderate anxiety)

#### *Diagnosis:*

The client has been diagnosed to have moderate anxiety regarding his health. The resulting stress from his anxiety leads to physical aches and pains in his body (including his IBS).

#### **TREATMENT:**

Client underwent 6 therapy sessions of pranayama Deep breathing (slow & fast), Bhramari & Yoga Nidra and along with regular home practice for 3 months.

#### *Dietary and lifestyle changes:*

The client was asked to drink 4 liters of water a day. He was also encouraged to eat pomegranates along with other lifestyle changes.

**OUTCOME:** Client after regular practice session of Pranayama and Yoga Nidra, he was able to reduce his anxiety and recover from IBS.

### CONCLUSION

From the clinical practice it is clearly seen that the combination of Pranayama and Yoga Nidra is effective in treating the anxiety disorder.

#### *Limitation*

- These techniques need to be practiced at home on a regular basis for positive consistent changes.
- Client who doesn't believe in this yoga or is lazy to practice may not be able to improve.

#### *Recommendation*

The present study focused only on the treatment of Anxiety; further studies can encompass other psychological issues.

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