

## THE IMPACT OF YOGA NIDRA ON ANXIETY, STRESS & WELL-BEING IN A COHORT OF THE GERIATRIC POPULATION.

Ashutosh Vashishth\*, Dr Nidhi Verma\*\* and Dr Rajesh Nair\*\*\*

### ABSTRACT

The geriatric population often faces heightened levels of anxiety and stress, which can significantly affect their overall well-being. In recent years, holistic interventions such as Yoga Nidra have gained attention for their potential benefits in reducing stress and improving psychological health. This study aims to evaluate the impact of Yoga Nidra on anxiety, stress, and overall well-being in a cohort of elderly participants.

A sample of 101 individuals aged 60 and above was selected for a 45days Yoga Nidra program, conducted on alternate days. Participants' levels of anxiety and stress were assessed using standardized psychometric tools, including the Beck Anxiety Inventory (BAI) and the Perceived Stress Scale (PSS), both before and after the intervention. Well-being was measured using the PGI Well-Being Index.

Results showed a significant reduction in anxiety and stress levels post-intervention, with marked improvements in overall well-being. Participants reported enhanced relaxation, better sleep, and increased emotional balance. These findings suggest that Yoga Nidra is an effective intervention for mitigating anxiety and stress, thereby improving the quality of life in older adults. Further studies are recommended to explore the long-term benefits and potential of integrating Yoga Nidra into geriatric care practices.

**Keywords:** Yoga Nidra, geriatric population, anxiety, stress, well-being, holistic intervention.

### *About authors:*

\*Research Scholar, Amity Institute of Behavioral & Allied Sciences, Amity University, Gurugram.

\*\*Associate Professor & Corresponding Author, Amity Institute of Behavioral & Allied Sciences, Amity University, Gurugram.

\*\*\* Professor & Director, Adarsh Project, Public Health Foundation of India.

### Introduction

The world is fast changing, and as industrialization has taken place and science has progressed in the modern world that we live in today, there is no doubt that we have found a lot of ways to make things easier, with machines, and techniques to make human life easier and our time more efficient. However, even looking back at the developments that have taken place in the last decade or so, with technology becoming so advanced, and worldwide pandemics like the COVID-19 wreaking havoc, the fast pace with which the change has occurred, has rendered the human body and brains unable to adapt so quickly to all of it. Effectively, we have found a high increase in stress, anxiety, depression, all things that have negatively and severely affected the daily conduct and life of people of all ages alike. Be it children, adults, or old-aged individuals, almost everyone today finds themselves with some sort of subjective challenges that brings about

discomfort, and hence decreases the levels of all facets of well being, viz. physiological, psychological, emotional, social, or even spiritual.

As the old adage goes, "health is wealth" and contrary to popular belief, health is not merely the absence of a disease or disorder, as the World Health Organization (1948) aptly puts it, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." And hence, it is within the realms and scope of psychology and psychologists to find ways to keep individuals healthy, mentally as well as cognitively.

In this pursuit to find ways to decrease stress and anxiety within individuals, researchers have turned towards ancient and yogic methods, methods that include meditative techniques, that focus on helping people gather their awareness and attention, helping in detachment from reflexive & "discursive thinking," further helping them in achieving a

sound, clear & calm mind. Yoga Nidra is one such ancient meditation technique that has found much interest due to its high level of effectiveness in alleviating symptoms related to anxiety and stress. In principle, yoga nidra is a guided meditation technique performed in a comfortable supine position, i.e. in the Corp (Savasana) pose, and involves turning the consciousness of the individual from one body to another again and again, from the cuticles of fingers to legs and head and more. It also includes visualizations and positive, comforting, self-affirming statements that eventually lead to a sleep-like state as an altered state of consciousness, where the individual isn't fully unconscious, but rather fully conscious and focused on the directed body part, visualization, or guided imagination. Regular practice of yoga nidra enhances deep inner-awareness, reducing stress and anxiety, ultimately increasing the overall happiness level. Yoga Nidra puts the individual in a state similar to sleep, but not fully so, comparable to a state of lucid dreaming, where the practitioner is aware of their consciousness, while being in a calming and relaxed state of mind. Yoga Nidra being a very simple guided cognitive rotation practice; it has been observed that even first-time practitioners enter a state of deep awareness while being deeply relaxed.

The practice of yoga nidra was popularly developed and standardized by Swami Satyananda Saraswati in his seminal text 'Yoga Nidra' (1976). According to Saraswati (1976), the sanskrit word nidra literally means "sleep"; and hence yoga nidra has been described as a rest or sleep practice aimed at enhancing inner awareness, being based on the ancient Tantric practice of nyasa, in which a mantra is repeated mentally with focus on specific parts of the body.

A plethora of functional definitions are present in the literature today, owing to the high number of researches and understandings, as proposed by different authors. Kumar (2004) goes on to define it as a technique used to induce complete physical, mental, and emotional relaxation, highlighting the nature of it as an altered state of consciousness, rather than concentration or hypnotism. Another definition was materialized Singh & Singh (2010), where yoga nidra is highlighted as a systematic

practice aimed at mental, physical and emotional relaxation.

In 2011, Swami Veda Bharati, a former professor of South Asian studies at the University of Minnesota sponsored an international conference on yoga-nidra. Bharati proposed four levels of yoga-nidra practice that would provide measurable physiological hypotheses for empirical investigation. He posited that yoga-nidra (yoga sleep) represents a state in which an individual demonstrates all the symptoms of deep, non-REM sleep, including delta brain waves, while simultaneously remaining fully conscious. (Parker et. al., 2013)

**Steps of Yoga Nidra Practice:** While differences may arise with different instructors and meditators, due to subjective designs, presented here are the steps of a standard yoga nidra practice, which usually takes about 30 minutes to perform, and for a better understanding and ease-to-follow, may be divided into the following eightfold stages:

1. **Preparation:** Yoga nidra is ideally practiced in shavasana position, with eyes closed. At this stage, initial relaxation of the body and mind is brought about through awareness of stillness, comfort, posture, breathing, and by listening to external sounds with an attitude to witness and observe, as a silent spectator.
2. **Sankalpa:** When the body and mind are relaxed, then the practitioner is instructed to take a resolve or sankalp according to his or her own wish. The sankalpa should be short, clear and positive. The practitioner repeats the selected sankalpa three times mentally, with full determination, conviction and confidence.
3. **Rotation of consciousness:** In the third stage, the awareness is to be rotated around the different parts of the body in a systematic and organized manner. The rotation of awareness in yoga nidra generally follows a definite sequence beginning with the right hand thumb and ending with the left side of the body.
4. **Breath awareness:** In this stage, one simply becomes aware of their natural breathing without making any attempts to change the flow, or speed of the breath.
5. **Opposite feelings and sensations:** In this stage, the physical or emotional sensations are recalled, intensified and experienced fully. Usually this is

practiced with pairs of opposite feelings or sensations like hot and cold, heaviness and lightness, pain and pleasure, love and hate, and so on.

6. **Visualization:** In the stage of visualization, the awareness is taken to *chidakasha* (enunciated as *chid-akasha*) in yogic terminology. The practitioner is then instructed to visualize some objects, stories or situations in the *chidakasha*, a blank slate to be filled with their imagination.
7. **Sankalpa:** Once again the *sankalpa*, taken in stage two, is repeated mentally three times in this stage with full dedication, faith and optimism that it will come true.
8. **Ending the practice:** The session of *yoga nidra* ends slowly with externalization of awareness by asking the practitioner to become aware of the external sounds, objects and persons again. They are then asked slowly move the body parts and to stretch the body, as they bring back their awareness, and their body, to the outward external world.

*Yoga Nidra* is not simply a relaxation technique, but it is also a unique kind of meditation. Parker et. al. (2013) proposed that, “*Yoga Nidra* represents a state in which an individual demonstrates all the symptoms of deep, non-REM sleep, including Delta brainwaves, while simultaneously remaining fully conscious.”

Table 1.1 shows that how brainwaves emissions change gradually during *yoga nidra* practice leading to a stage where alpha waves are emitted predominantly during the practice. This ultimately brings deep relaxation and various positive effects on functioning of brain. Source: Sharpe, E., Lacombe, A., Butler, M. P., Hanes, D., & Bradley, R. (2021).

Subsequent researches have demonstrated that *Yoga Nidra* is a technique in which one can alter the state of consciousness from Beta to Alpha and then to Delta brainwaves, knowingly. It has become apparent then that there exists a correlation between meditation techniques like *yoga nidra* and the part of the brain activated during session.

**Table1.1**

TYPE OF WAVES IN EEG	BRAINWAVES CYCLES /SECOND	LEVEL OF CONCIIOUSNESS
Beta	13 – 30	Externally directed attention, mental activity, anxiety. Rational Mind use, also some schizophrenias and manias
Alpha	8 – 12	Internally directed attention with closed eyes, relaxed state of body and mind, psychosis
Theta	4 – 7	States of creativity, access to unconscious material meditation. REM sleep, in children
Delta	0.5 – 3	Deep and dreamless sleep, new born babies, some neurological Disorders

### Methodology

**Participant Selection:** N=101 participants were selected using convenient purposive sampling from Old Age Homes in Hisar, Haryana. Both males and females aged 60 years and above who were experiencing anxiety and stress, and had compromised well-being, were included in the study. Exclusion criteria included individuals taking psychiatric medication or those critically ill due to other associated ailments.

**Pre-Assessment:** Prior to the intervention, a comprehensive pre-assessment was conducted to establish baseline measures for anxiety, stress, and well-being using the Beck Anxiety Inventory (BAI). The Beck Anxiety Inventory (BAI), created by Aaron T. Beck and colleagues, is a self-reported inventory designed to assess the severity of anxiety symptoms in adults and adolescents. It consists of 21 Questions, each describing a common symptom of anxiety. Each item is rated on a four-point scale ranging from 0 (not at all) to 3 (severely), with total scores ranging from 0 to 63. The scores are interpreted as follows: minimal anxiety (0-7), mild anxiety (8-15), moderate anxiety (16-25), and severe anxiety (26-63).

**Perceived Stress Scale (PSS)** The Perceived Stress Scale (PSS), developed by Sheldon Cohen, is a widely used psychological instrument for measuring the perception of stress. It assesses the degree to which situations in one's life are appraised as stressful. The PSS contains 14 Questions, each rated on a five-point scale ranging from 0 (never) to 4 (very often), with total scores ranging from 0 to 40. Scores are interpreted as follows: low stress (0-13), moderate stress (14-26), and high perceived stress (27-40).

PGI Well-being Scale, The PGI Well-being Scale, developed by Verma and Anita, is a self-report measure designed to assess subjective well-being or happiness. It evaluates various dimensions of well-being, including satisfaction with life, positive affect, and fulfillment of needs. The scale consists of 20 Questions, each requiring a "Yes" or "No" response. A score of 1 is given for "Yes" and 0 for "No," with total scores ranging from 0 to 20. Higher scores indicate better well-being.

Each participant's responses were recorded and scores were calculated to determine their baseline levels.

**Intervention:** The Yoga Nidra sessions were conducted on alternate days over a period of 45 days, with each session lasting approximately 30 minutes.

**Post-Assessment:** After the 45-day intervention period, all participants underwent a post-assessment using the same tools as in the pre-assessment (BAI, PSS, and PGI Well-being Scale). The responses were recorded and scores were calculated to determine the post-intervention levels of anxiety, stress, and well-being. The collected data was documented meticulously for subsequent statistical analysis.

**Data Analysis:**

Table 1.2 Shows Descriptive statistics for the P.G.I General Well-Being (PGIGWB) assessment.

Table 1.2

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
PGIWI_EG_PRE	101	5.00	14.00	9.6337	2.22586	4.954
PGIWI_EG_POST	101	10.00	19.00	14.5941	2.08891	4.364

For the experimental group before participating in Yoga Nidra meditation (PGIWI\_EG\_PRE), the data shows that the average PGIGWB score was 9.6337, indicating a moderate level of general well-being prior to the intervention. Scores ranged from a minimum of 5.00 to a maximum of 14.00. After the Yoga Nidra meditation intervention (PGIWI\_EG\_POST), the average PGIGWB score increased significantly to 14.5941, reflecting a substantial improvement in general well-being among participants. The score range also widened slightly, with the lowest at 10.00 and the highest at 19.00, suggesting a broader improvement in well-being across the group.

Table 1.3 displays the results of a multi-group analysis conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM). The analysis assesses the effects of anxiety and stress on the well-being of a geriatric population, comparing outcomes from two groups: Group-1 (before the Yoga Nidra intervention) and Group-2 (after the intervention).

Table 1.3 Multi-Group Analysis using PLS-SEM

Path	Path Coefficient for Group-1 is Pre-Yoga Intervention	Path Coefficient for Group-2 is Post-Yoga Intervention	R-Square for Group-1 is Pre-Yoga Intervention	R-Square for Group-2 is Post-Yoga Intervention	P-Value
Stress -> Well-Being	-0.499	-0.073	0.481	0.009	0.000
Anxiety -> Well-Being	-0.225	-0.060			0.000

In Group-1 (Pre-Yoga Intervention), the path coefficient for the relationship between stress and well-being is -0.499, indicating a strong negative impact. This means that higher stress levels are significantly associated with lower well-being in this group. The R-Square value of 0.481 reveals that stress accounts for 48.1% of the variance in well-being. The p-value of 0.000 confirms that this relationship is statistically significant.

In contrast, in Group-2 (Post-Yoga Intervention), the path coefficient for the stress and well-being relationship drops to -0.073, suggesting a greatly reduced negative impact of stress on well-being following the intervention. The R-Square value of 0.009 indicates that stress only explains 0.9% of the variance in well-being post-intervention. Despite the smaller effect size, the p-value remains 0.000, affirming statistical significance. For the relationship between anxiety and well-being in Group-1, the path coefficient is -0.225, pointing to a moderate negative impact, with higher anxiety linked to lower well-being before the intervention. The p-value of 0.000 confirms the statistical significance of this relationship.

In Group-2, the path coefficient for anxiety and well-being is reduced to -0.060, indicating a much smaller negative impact after the Yoga Nidra intervention. This suggests a significant reduction in the negative effect of anxiety on well-being post-intervention. The p-value of 0.000 confirms that this relationship remains statistically significant as well.

## Discussion:

The descriptive statistics provide a detailed overview of the distribution and extent of general well-being levels in both pre-test and post-test conditions, emphasizing the positive impact of the Yoga Nidra meditation intervention on improving general well-being among participants.

The multi-group analysis provides compelling evidence of the Yoga Nidra intervention's effectiveness in significantly reducing the harmful effects of anxiety and stress on the well-being of the geriatric population. The marked decrease in both path coefficients and R-Square values observed in Group-2 (Post-Yoga Intervention) compared to Group-1 (Pre-Yoga Intervention) illustrates the intervention's powerful ability to mitigate these negative influences. This clear contrast between the two groups underscores the transformative impact of Yoga Nidra, revealing its profound role in promoting psychological resilience and enhancing overall well-being in older adults. The findings strongly suggest that this intervention can serve as a valuable tool for improving the quality of life in this vulnerable population.

## Conclusion:

The study clearly shows that Yoga Nidra intervention proves to be significantly effective in mitigating anxiety and stress among a cohort of geriatric population ultimately leading to their enhanced wellbeing. This tool could prove to be a game changer for reducing levels of anxiety and stress and enhancing overall sense of well being among second largest population of India i.e. geriatric people.

## Implications of Study:

1. Enhanced Understanding of Intervention Efficacy: The study highlights the effectiveness of Yoga Nidra in mitigating anxiety and stress among the geriatric population, providing valuable insights into how such interventions can improve overall well-being. This understanding can inform future practices and treatments designed to address mental health issues in older adults.

2. Evidence-Based Practice for Mental Health Professionals: The findings offer mental health professionals and caregivers evidence-based support for incorporating Yoga Nidra into therapeutic programs for seniors. This can help in developing more holistic and effective treatment

plans tailored to the needs of the geriatric population.

3. Policy and Program Development: The results may encourage the development and implementation of wellness programs in senior living communities, healthcare settings, and public health initiatives. By integrating Yoga Nidra into these programs, policymakers can address mental health challenges in aging populations more effectively.

4. Informed Decision-Making for Future Research: The study provides a foundation for further research into the long-term benefits of Yoga Nidra and similar interventions. Future studies could explore the sustained impact of these practices, their effects on other psychological and physiological outcomes, and their applicability to different demographic groups.

5. Promotion of Preventive Mental Health Strategies: The significant improvement in well-being observed post-intervention underscores the potential for Yoga Nidra as a preventive strategy. Promoting such interventions can help reduce the incidence of mental health issues among older adults, potentially lowering healthcare costs and improving quality of life.

6. Increased Awareness and Acceptance: By demonstrating the benefits of Yoga Nidra, the study can increase awareness and acceptance of alternative and complementary therapies among the geriatric population and their families. This can lead to greater adoption of these practices and a shift toward more comprehensive approaches to mental health care.

7. Potential for Broader Application: The positive outcomes observed in this study suggest that Yoga Nidra could be beneficial for other populations facing similar challenges with anxiety and stress. This opens the door for exploring its use in different settings and with diverse groups, further expanding its potential benefits.

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