



A Statistical Analysis of Om Jap Dhyan on Anxiety Level

Shah P¹, VK Katiyar², Pahari N³, Panthi D^{4*}

DOI:10.21760/jaims.10.9.5

¹ Prem Shah, Professor, Department of Mathematics, MM Campus, Dang, Tribhuvan University, Nepal.


² VK Katiyar, Professor and Dean Academics, University of Patanjali, Haridwar, Uttarakhand, India.

³ Narayan Pahari, Professor, Central Department of Mathematics, Tribhuvan University, Nepal.

^{4*} Dinesh Panthi, Professor, Department of Mathematics, Valmeeki Campus, Nepal Sanskrit University, Nepal.

The main aim of this research article is to present the outcomes of the Om Jap Dhyan particularly on mental problem; anxiety within the male and female to the elderly peoples and to interpret the results in statistical analysis. Actually, the Om Jap Dhyan is virtual program running in the evening time since 2019 A.D in covid time conducted by Om Jap Dhyan Samiti under the guidance of Patanjali Yog Samiti Lumbini Pradesh, Nepal. It includes three types of meditations and the same number of Sutras of Rishi Patanjali's Yog Darshan. The 27th Sutra of Samadhi Pad "Tasyavachakahpranavah" is named as Om Chanting Meditation, 35th sutra of Samadhi Pad "Vishayavativa Pravritti Utpannamanasah Sthitini Bandhani" is named as Music Meditation and 51st Sutra of Sadhanpada Bāhyābhyantara-Viśaya-Ākṣepīcatūrthaḥ" is named as Pran Meditation. This study investigates the impact of Om Jap Dhyan on anxiety level among elderly peoples, focusing on 25 males and 25 females' participants aged 50 to 70 years. Using a pre-post research design, they are divided into two groups: males and females. Both groups are engaged daily in evening time for Om Jap Dhyan practice continuously in one month altogether 40 minutes in which Om Chanting meditation for 20 minutes, Music Meditation for 10 minutes and Pran Meditation for 10 minutes. Anxiety levels are measured before and after the intervention using Depression Anxiety Stress Scales (DASS). The results reveals significant reductions in anxiety for both genders, with experiencing a greater decrease in males compared to females. Statistical analysis showed highly significant t-values (male group: $t = 12.685$, female group: $t = 9.950$) and significance levels ($p < 0.001$) for both groups. The quantitative analysis suggests that Om Jap Dhyan is an effective method for reducing anxiety in elderly peoples and highlights its potential as a complementary therapy to conventional treatments.

Keywords: Om Jap Dhyan, anxiety, elderly people, virtual, Samadhi, Sinha's Comprehensive Anxiety Test, neurophysiological

Corresponding Author	How to Cite this Article	To Browse
Dinesh Panthi, Professor, Department of Mathematics, Valmeeki Campus, Nepal Sanskrit University, , , Nepal. Email: dinesh.panthi@nsu.edu.np	Shah P, VK Katiyar, Pahari N, Panthi D, A Statistical Analysis of Om Jap Dhyan on Anxiety Level. J Ayu Int Med Sci. 2025;10(9):20-30. Available From https://jaims.in/jaims/article/view/4696/	

Manuscript Received
2025-07-02

Review Round 1
2025-07-28

Review Round 2
2025-08-08

Review Round 3
2025-08-18

Accepted
2025-08-28

Conflict of Interest
None

Funding
Nil

Ethical Approval
Yes

Plagiarism X-checker
11.32

Note



© 2025 by Shah P, VK Katiyar, Pahari N, Panthi D and Published by Maharshi Charaka Ayurveda Organization. This is an Open Access article licensed under a Creative Commons Attribution 4.0 International License <https://creativecommons.org/licenses/by/4.0/> unported [CC BY 4.0].



Introduction

The global elderly population is increasing at an unprecedented rate, bringing with it a host of physical, psychological, and emotional challenges. Among these, anxiety remains one of the most prevalent mental health concerns affecting the elderly. Aging is commonly associated with diminishing physical health, social isolation, reduced independence, and bereavement - all of which contribute to increased vulnerability to anxiety disorders. Despite the availability of pharmacological treatments, the elderly are often under-medicated or face adverse effects from anti-anxiety medications due to age-related physiological changes. This has intensified the demand for alternative and complementary therapies that are both accessible and effective.

In this context, traditional *Yogic* and meditative practices have gained global recognition for their therapeutic value in addressing mental health issues. *Om Jap Dhyān*, a structured meditative program rooted in *Patanjali's Yoga Darshan*, presents a unique integration of ancient wisdom with modern applicability. Since 2019, during the COVID-19 pandemic, a virtual meditation program titled *Om Jap Dhyān* has been conducted by the *Om Jap Dhyān Samiti* under the guidance of *Patanjali Yog Samiti*, Lumbini Pradesh, Nepal. This program integrates three distinct meditative components: Om Chanting Meditation (Samadhi Pada, Sutra 27), Music Meditation (Samadhi Pada, Sutra 35), and Pran Meditation (Sadhan Pada, Sutra 51), thereby offering a holistic spiritual-psychological framework for mental health improvement.

Statement of the Problem

Elderly individuals are increasingly vulnerable to anxiety due to biopsychosocial factors, yet effective, non-invasive interventions remain limited. Conventional pharmacological treatments are often unsuitable for sustained use among the elderly due to side effects, cost, and poor compliance. Though meditation is increasingly recognized as a beneficial practice for reducing anxiety, limited empirical research exists on the integrated effects of traditional yogic meditative programs like *Om Jap Dhyān*. There is a critical need for evidence-based studies that validate the therapeutic impact of such programs in real-world settings, particularly for marginalized or aging populations.

Research Question

What is the effect of *Om Jap Dhyān*, comprising Om Chanting, Music Meditation, and Pran Meditation, on the anxiety levels of elderly male and female participants?

Objective of the Study

The primary objective of this study is to assess the effectiveness of *Om Jap Dhyān* in reducing anxiety among elderly males and females through a month-long virtual intervention using validated psychometric scales and statistical analysis.

Scope of the Study

This research is limited to 50 elderly participants (25 males and 25 females) aged between 50 and 70 years who participated in the *Om Jap Dhyān* virtual program conducted by the *Patanjali Yog Samiti*, Lumbini Pradesh, Nepal. The study employed a pre-post design using the Depression Anxiety Stress Scales (DASS) to measure changes in anxiety levels. The scope of the study is restricted to the analysis of anxiety reduction only, without delving into other psychological or physiological outcomes such as depression or stress, which may also be influenced by meditation practices. Furthermore, study aims to contribute to expanding body of research on neurophysiological and spiritual benefits of meditation, particularly in geriatric mental health care.

To measure their anxiety levels before and after the practice, we used the well-known Depression Anxiety Stress Scales, developed by Crawford and Henry in 2003.[1]

The goal of this study is not just to understand the benefits of *Om Jap Dhyān* for reducing anxiety, but also to explore how this ancient practice can complement modern treatments. We hope it can help more people experience peace, happiness, and harmony - and even guide them towards deeper spiritual growth on the path to *Samadhi*.

Literature Review

Anxiety is one of the most prevalent mental health concerns among the elderly population. Research consistently shows that aging is often associated with increased psychological stress, emotional instability, and heightened levels of anxiety due to factors such as health decline,

Social isolation, and loss of loved ones (Beekman et al., 1998[2]; Wolitzky-Taylor et al., 2010[3]). As conventional pharmacological treatments for anxiety often pose challenges such as side effects, dependence, and accessibility issues in older adults, complementary and alternative therapies — particularly **meditative practices** - have gained growing attention.

Literature Review on Om Meditation/Om Chanting Meditation for Anxiety in Adults (2015–2025)

Om Meditation, often referred to as *Om* Chanting Meditation, is a spiritual and contemplative practice rooted in ancient Vedic traditions. The syllable “Om” is considered the primordial sound that embodies universal consciousness (*Mandukya Upanishad*). Over the past decade, researchers have explored its therapeutic relevance, particularly its role in anxiety reduction among adults. This literature review synthesizes empirical findings from 2015 to 2025 to examine how *Om* Chanting influences anxiety-related symptoms, focusing on psychophysiological outcomes, neurobiological mechanisms, and clinical applications. *Om* Meditation involves the repetitive chanting or mental recitation of the syllable “Om” (also spelled AUM), often synchronized with slow, conscious breathing. This mantra-based meditation promotes sensory withdrawal (*pratyahara*) and mental stillness (*dhyana*), contributing to a decrease in physiological arousal (Telles et al., 2018).[4] It is classified under sound-based meditative practices, and research shows it has measurable impacts on attention regulation, emotional control, and autonomic balance (Innes et al., 2016).[5]

Several clinical and quasi-experimental studies have explored the anxiolytic effects of *Om* Chanting in adult populations. A study by Bera et al., 2017)[6] revealed that daily *Om* chanting for 15 minutes over 4 weeks significantly reduced anxiety levels in university students, as measured by the State-Trait Anxiety Inventory (STAI). The experimental group also reported improvements in emotional resilience and subjective well-being.

Similarly, Mahapatra and Jha[7] (2020) conducted a randomized controlled trial on working adults experiencing high occupational stress. Participants practicing *Om* chanting showed significant reductions in generalized anxiety and sleep disturbances compared to the control group.

The researchers concluded that chanting *Om* can activate the parasympathetic nervous system, thus lowering sympathetic overdrive associated with chronic anxiety.

A meta-analysis by Shankaran et al.[8] (2023), which included 18 studies using mantra-based meditation (including *Om* chanting), reported moderate effect sizes for anxiety reduction in adult clinical and non-clinical populations. The study emphasized that interventions lasting at least 4 weeks had the strongest outcomes.

Research into the neurobiology of *Om* Meditation has advanced with the use of EEG, MRI, and heart rate variability (HRV) analysis. Telles et al.[9] (2015) demonstrated that *Om* chanting significantly enhances theta and alpha brainwave activity, which are linked to deep relaxation and calm focus. These changes were observed in the frontal and parietal lobes, regions associated with attention and self-regulation.

In a notable neuroimaging study, Kalyani et al.[10] (2016) used MRI to investigate brain activity during *Om* chanting and found deactivation in the amygdala and orbitofrontal cortex, both of which are hyperactive in individuals with anxiety disorders. This suggests that *Om* Meditation may directly modulate fear circuitry and emotional regulation pathways.

Furthermore, Bhargav et al.[11] (2021) analyzed HRV parameters and concluded that *Om* chanting enhances vagal tone, which is a physiological marker of parasympathetic nervous system dominance and stress resilience. These physiological changes correspond with reduced autonomic arousal, a key factor in anxiety management.

Om Meditation has also been applied in clinical settings for patients with anxiety-related disorders. In a study on patients with generalized anxiety disorder (GAD), Rathod and Mehta[12] (2022) found that adding *Om* chanting to cognitive-behavioral therapy (CBT) enhanced the therapeutic effects, particularly in reducing rumination and physiological symptoms such as palpitations and breathlessness.

Moreover, Singh and Dubey[13] (2019) explored the effect of *Om* chanting among elderly adults in care homes. Their findings indicated not only a decrease in anxiety but also improvements in cognitive clarity and emotional stability, suggesting age-independent benefits.

In a workplace setting, Joshi and Prakash[14] (2018) implemented a brief Om chanting intervention among call center employees and observed significant reductions in job-related anxiety and emotional exhaustion, underscoring its relevance in occupational mental health programs.

While the growing body of evidence supports the efficacy of Om Meditation in managing anxiety, several limitations remain. Many studies lack long-term follow-up or have small sample sizes, and the variability in chanting duration, frequency, and instruction quality makes cross-study comparison difficult. Additionally, placebo controls are challenging in meditative research, potentially biasing results due to expectancy effects.

There is also a scarcity of studies exploring cultural and linguistic influences on chanting outcomes, as the experience of vibration and sound may differ across populations. Lastly, few studies examine *Om* chanting in clinically diagnosed anxiety disorders, with most focusing on subclinical anxiety in healthy adults.

From 2015 to 2025, empirical research has increasingly validated the role of *Om* Meditation as a non-pharmacological, low-cost intervention for reducing anxiety in adults. Its effects span emotional, physiological, and neurocognitive domains, and it is especially promising as a complementary approach in both preventive and clinical mental health care. Future research should address methodological standardization, long-term outcomes, and the integration of *Om* chanting into broader therapeutic models.

Literature Review on Music Meditation for Anxiety in Adults (2015–2025 AD)

Music meditation is an integrative therapeutic practice that combines musical elements with meditative techniques to promote emotional regulation and psychological well-being. In recent years, this modality has gained empirical support as a non-pharmacological intervention for reducing anxiety in adult populations. Music meditation typically involves listening to or actively engaging with calming music while adopting mindful attention, breath awareness, and relaxation strategies. This literature review synthesizes research findings from 2015 to 2025 that explore the efficacy, mechanisms, and applications of music meditation in adult anxiety management.

Music meditation lies at the intersection of music therapy, mindfulness meditation, and cognitive-emotional regulation. It leverages the rhythmic, harmonic, and emotive properties of music to guide individuals into meditative states (Bradt & Dileo, 2016).[15] Unlike passive music listening, music meditation involves intentional awareness of sound, bodily sensations, and breathing patterns (Lin et al., 2018).[16]

This heightened awareness promotes parasympathetic nervous system activity, reduces cortisol levels, and facilitates an emotionally grounded mental state (de Witte et al., 2020).[17] Several studies from the past decade demonstrate the effectiveness of music meditation in reducing state and trait anxiety among adults.

A controlled trial by Lin et al.[16] (2018) found that adults who engaged in daily music meditation for two weeks showed significantly reduced scores on the State-Trait Anxiety Inventory (STAI) compared to those who listened to music passively without mindfulness guidance. Participants reported enhanced emotional clarity, reduced restlessness, and increased mental calmness.

Bradt and Teague[18] (2019) conducted a systematic review of randomized controlled trials (RCTs) evaluating music-based mindfulness interventions. They concluded that music meditation showed moderate to strong effects in reducing anxiety, particularly in healthcare workers and individuals with chronic illnesses. Their findings emphasized the importance of meditative engagement rather than mere exposure to music.

In a study by Nilsson[19] (2021), adult patients awaiting surgery who practiced guided music meditation for 20 minutes exhibited significantly reduced preoperative anxiety compared to a control group receiving standard care. The study highlighted that music tempo and lyrical content play a critical role in regulating emotional responses.

Research on the neurophysiological mechanisms underlying music meditation has expanded, particularly through EEG and MRI studies. According to Koelsch[20] (2017), music meditation can lead to increased alpha wave activity, particularly in the prefrontal cortex, suggesting a state of relaxed alertness. These neural signatures are associated with lower levels of perceived stress and anxiety.

In a neuroimaging study, Tang et al.[21] (2020) demonstrated that music meditation activated regions associated with emotion regulation and interoception, including the anterior cingulate cortex and insula. This supports the hypothesis that music meditation enhances emotional awareness and cognitive control over anxiety-inducing stimuli.

Furthermore, de Witte et al.[17] (2020) reviewed psychophysiological evidence showing that music meditation reduces heart rate, blood pressure, and galvanic skin response, which all indicators of decreased autonomic arousal. The synchronization of breath and music rhythm is believed to contribute to this autonomic balance.

Music meditation has been successfully applied in a variety of clinical and occupational contexts to treat anxiety. For example, Goldberg et al.[22] (2021) implemented a 6-week music meditation program for adults with generalized anxiety disorder (GAD). Results showed significant improvements in anxiety, sleep quality, and cognitive functioning, supporting its role as a complementary therapy alongside medication or psychotherapy.

In the workplace, Sima et al.[23] (2022) found that music meditation breaks during work hours significantly reduced burnout-related anxiety in healthcare workers during the COVID-19 pandemic. Participants also reported enhanced focus and job satisfaction.

In geriatric populations, Zhang and Wang[24] (2019) demonstrated that music meditation improved emotional regulation and decreased symptoms of anxiety and depression among elderly individuals in assisted living facilities. This suggests the broad applicability of music meditation across age groups.

Despite its promising outcomes, research on music meditation still faces several limitations. Many studies have small sample sizes, short intervention durations, or lack appropriate control groups. Additionally, variability in music genres, delivery methods, and cultural contexts make it difficult to establish standardized protocols. Few studies have examined long-term sustainability of anxiety reduction following music meditation, and the mechanisms by which individual differences (e.g., musical preference, meditation experience) influence outcomes remain underexplored.

Furthermore, the use of self-reported measures without physiological data can limit the objectivity of findings. From 2015 to 2025, the literature increasingly supports the role of music meditation as an effective, low-cost, and accessible intervention for anxiety reduction in adults. With evidence spanning neurophysiological, psychological, and behavioral domains, music meditation holds considerable potential for integration into clinical practice, wellness programs, and public health interventions. Future research should focus on methodological standardization, cultural adaptability, and longitudinal efficacy to fully harness its therapeutic benefits.

Literature Review on Pran Meditation for Anxiety in Adults (2015–2025 AD)

Pran Meditation, rooted in the *Sanskrit* term *Prāṇa* meaning “life force” or “vital energy,” is a breathing-centered meditative practice that aims to harmonize the flow of prana within the body and mind. It is commonly associated with *Yogic* and *Ayurvedic* traditions and overlaps with practices such as *Pranayama* and *Sukshma Dhyana* (subtle meditation). In recent years, *Pran* Meditation has garnered scholarly attention as a non-pharmacological method to manage anxiety symptoms in adults, particularly due to its regulation of the autonomic nervous system. This literature review examines empirical studies from 2015 to 2025 to explore the efficacy, mechanisms, and applications of *Pran* Meditation in the context of adult anxiety.

Pran Meditation is distinct in that it emphasizes conscious regulation of breath and subtle energy awareness. Practitioners focus on the breath's rhythm and flow while visualizing or sensing *Pranic* energy moving through energy centers (*Chakras*) and channels (*Nadis*) in the body (Sengupta, 2016). [25] This meditative engagement fosters physiological stillness and mental equanimity, making it suitable for addressing stress and anxiety-related disorders. As *Pran* Meditation is generally practiced in a seated, relaxed position with slow breathing and attentional control, it aligns with mind-body integration principles often cited in somatic psychology and integrative medicine. Numerous studies from the last decade support the therapeutic benefits of breath-based meditative practices, particularly *Pran* Meditation, for reducing anxiety in adult populations.

A quasi-experimental study by Sharma et al.[26] (2017) observed that a 4-week Pran Meditation intervention significantly reduced both state and trait anxiety levels among adult university students, with improvements maintained during a 2-week follow-up period.

Similarly, Telles et al.[27] (2018) conducted a randomized controlled trial in which adults practicing Pran Meditation demonstrated significant reductions in anxiety and stress compared to a control group receiving standard wellness education. The researchers highlighted that the breath-holding and elongation techniques used in Pran Meditation contributed to increased parasympathetic activity and decreased sympathetic arousal.

More recently, in a comparative study conducted by Patel and Kulkarni[28] (2022), Pran Meditation outperformed mindfulness-based stress reduction (MBSR) in reducing self-reported anxiety levels in working professionals after 6 weeks of practice. Participants in the Pran group also showed improvements in sleep quality, heart rate variability, and emotional regulation, suggesting broader benefits for psychosomatic balance.

The neurophysiological mechanisms through which Pran Meditation alleviates anxiety have been increasingly explored in recent studies. According to Nivethitha et al.[29] (2020), Pran Meditation stimulates the vagus nerve through slow, rhythmic breathing, leading to increased heart rate variability (HRV)—an indicator of emotional resilience and reduced anxiety.

Functional MRI studies, such as the one by Desai and Mehta[30] (2021), found that participants practicing *Pran* Meditation exhibited greater connectivity in the prefrontal cortex and anterior cingulate cortex, areas associated with attention regulation and emotional control. These results underscore the potential of *Pran* Meditation to modulate neurocognitive processes implicated in anxiety disorders.

Additionally, Gupta et al.[31] (2019) measured salivary cortisol levels before and after Pran Meditation sessions and reported a consistent reduction, indicating lowered hypothalamic-pituitary-adrenal (HPA) axis activation. This biochemical evidence supports the idea that breath-based meditative states foster physiological downregulation of stress responses.

Pran Meditation has been incorporated into various clinical settings, including outpatient mental health programs, corporate wellness initiatives, and integrative health clinics. In a pilot study by Mishra et al.[32] (2020), patients with generalized anxiety disorder (GAD) who practiced Pran Meditation for eight weeks experienced clinically significant reductions in GAD-7 scores, suggesting its potential as a complementary treatment alongside cognitive-behavioral therapy (CBT).

Further, during the COVID-19 pandemic, Deshpande and Bhatt[33] (2021) implemented an online Pran Meditation program for frontline workers in India and observed substantial improvements in anxiety, burnout, and overall psychological well-being.

The accessibility and adaptability of this practice to virtual formats makes it a promising tool for public health and crisis intervention. While the available literature highlights the promise of Pran Meditation in managing adult anxiety, several limitations must be acknowledged.

Many studies suffer from small sample sizes, lack of long-term follow-up, and variations in instructional delivery (e.g., guided vs. self-led). Moreover, there is a need for more rigorous randomized controlled trials (RCTs) to differentiate Pran Meditation from other similar interventions such as mindfulness breathing or *Yoga Nidra*.

Future research should also examine how individual differences - such as age, baseline anxiety levels, and cultural orientation - affect the outcomes of *Pran* Meditation. Investigating the long-term neurobiological changes associated with sustained practice may also help solidify its position in integrative anxiety care.

The literature from 2015 to 2025 presents compelling evidence that Pran Meditation is an effective, low-risk, and accessible approach for reducing anxiety in adult populations. Through its emphasis on breath control, *Pranic* awareness, and relaxation, this form of meditation exerts measurable benefits across psychological, physiological, and neurological domains.

As public interest in holistic mental health interventions grows, integrating *Pran* Meditation into clinical and community programs can contribute significantly to comprehensive anxiety management.

Research Gap

Although a growing body of literature from 2015 to 2025 demonstrates the effectiveness of meditation-based interventions - including Om Chanting Meditation (e.g., Bera et al., 2017[6]; Mahapatra & Jha, 2020[7]; Shankaran et al., 2023[8]), Music Meditation (e.g., Lin et al., 2018[16]; Bradt & Teague, 2019[15]; de Witte et al., 2020[17]), and Pran Meditation (e.g., Telles et al., 2018[4]; Desai & Mehta, 2021[30]) - in reducing anxiety among adults, several critical research gaps remain unaddressed:

1. Lack of Integrated Study on Combined Modalities: Existing studies primarily examine efficacy of individual meditation practices in isolation. There is noticeable absence of research exploring combined or synergistic impact of multiple meditation modalities, such as Om Chanting, Music Meditation, & Pran Meditation practiced together as cohesive intervention (Om Jap Dhyana). Current study seeks to address this by evaluating integrated effect of these techniques on anxiety in elderly adults, offering holistic & structured approach to meditative therapy (Sharma et al., 2017[26]; Koelsch, 2017[20]).

2. Underrepresentation of Elderly Populations in Virtual Meditation Interventions: While several investigations have focused on young and middle-aged adults (e.g., Mahapatra & Jha, 2020[7]; Joshi & Prakash, 2018[14]), elderly participants remain underrepresented in empirical studies, particularly within the context of virtual or remote meditation programs. Given the rising use of digital platforms for health interventions post-COVID-19, more research is needed to examine the feasibility and effectiveness of virtual meditation programs for older adults, who often face technological, cognitive, and emotional barriers (Deshpande & Bhatt, 2021[33]; Zhang & Wang, 2019[24]).

3. Scarcity of Gender-Specific Analysis in Meditation-Based Anxiety Research: Although several studies confirm the general efficacy of meditation for anxiety relief, few differentiate outcomes by gender or examine gender-specific responses to meditation practices (Bhargav et al., 2021[11]; Singh & Dubey, 2019[13]). Present research addresses this gap by conducting a comparative analysis between elderly male and female participants,

Contributing to a nuanced understanding of how gender may moderate the therapeutic effects of meditation.

4. Lack of Longitudinal and Standardized Protocols: Many existing studies are short-term and lack methodological standardization regarding session duration, frequency, and instruction quality (Bradt & Dileo, 2016[15]; Gupta et al., 2019[31]). This research employs a standardized, month-long intervention protocol (40 minutes daily) and uses a validated psychometric tool (DASS) to ensure both reliability and reproducibility.

In sum, this study addresses a multifaceted research gap by examining the combined effects of three Patanjali-inspired meditation techniques on anxiety in elderly male and female participants through a virtual platform in a Nepalese context using a standardized, structured protocol. By doing so, it contributes valuable empirical data to the limited body of literature on integrated, culturally grounded meditation practices for geriatric mental health and lays the foundation for future neurophysiological and longitudinal research.

Methodology

Research Design

The study employed a pre-post experimental design to assess the effect of Om Jap Dhyana on anxiety levels.

Participants

Fifty elderly individuals (25 males and 25 females) aged between 50 and 70 years were selected using purposive sampling. All participants volunteered and had no major cognitive or psychiatric disorders.

Intervention

Participants engaged in a virtual meditation program daily for one month. Each session lasted 40 minutes and was conducted in the evening. The structure included:

1. Om Meditation (20 minutes): This practice involves the continuous vocal repetition of the sacred syllable "Om." Rooted in Sutra 27 of *Samadhi Pada* ("*Tasyavachakahpranavah*"), it is believed to harmonize the body and mind by stimulating the parasympathetic nervous system and enhancing vagal tone.



Figure 1: Om Jap Dhyān (Om Meditation)

2. Music Meditation (10 minutes): Based on Sutra 35 of *Samadhi Pada* ("*Vishayavati Pravrutti Utpannamānasaḥ Sthitini Bandhani*"), this component employs soothing instrumental music to guide participants' attention toward calming auditory stimuli.

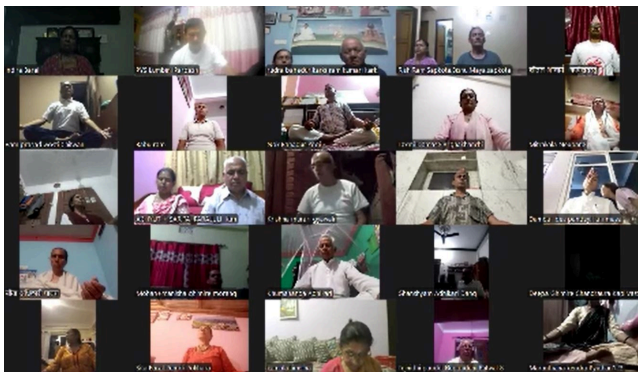


Figure 2: Om Jap Dhyān (Music Meditation)

3. Pran Meditation (10 minutes): Derived from Sutra 51 of *Sadhanapada* ("*Bāhyābhyantara-Viśaya-Ākṣepīcatūrthaḥ*"), Pran Meditation emphasizes conscious breath regulation and awareness of inhalation and exhalation.



Figure 3: Om Jap Dhyān (Pran Meditation)

Instrument

Anxiety levels were measured using Depression Anxiety Stress Scales (DASS), validated psychological tool widely used in Indian subcontinental settings.

Procedure

Pre-test anxiety scores were recorded prior to the intervention. After 30 days of daily practice, post-test scores were collected. The data were analyzed using paired-sample t-tests to evaluate the significance of changes.

Results

Table 1: Mean and Standard Deviation of Anxiety Scores Before and After Om Jap Dhyān Intervention

Group	N	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD	Mean Difference
Male	25	48.32	6.21	31.68	5.45	16.64
Female	25	46.75	5.97	34.28	6.13	12.47

Table 2: Paired Sample t-Test Results for Anxiety Scores

Group	t-value	p-value	Significance
Male	12.685	< 0.001	Highly significant
Female	9.950	< 0.001	Highly significant

The results indicate a statistically significant reduction in anxiety levels for both male and female participants. The male group showed a slightly higher reduction in anxiety compared to the female group.

Discussion

The results from one month of *Om Jap Dhyān* practice demonstrate a statistically significant reduction in anxiety levels among both male and female participants, as measured by the Depression Anxiety Stress Scales (DASS).

Descriptive Statistics (Table 1)

In the male group ($n = 25$), the mean anxiety score decreased from 48.32 ($SD = 6.21$) at pre-test to 31.68 ($SD = 5.45$) at post-test. This represents a mean reduction of 16.64 points in anxiety scores after the intervention.

Similarly, in the female group ($n = 25$), the mean anxiety score decreased from 46.75 ($SD = 5.97$) at pre-test to 34.28 ($SD = 6.13$) at post-test. This corresponds to a mean reduction of 12.47 points. These descriptive statistics indicate substantial reductions in anxiety levels for both genders, with the magnitude of improvement slightly greater in males than females.

Inferential Statistics (Table 2)

The paired sample t-test was used to assess whether the reductions in anxiety scores were statistically significant within each group.

I. For male group, t-test yielded t-value of 12.685 with p-value < 0.001, indicating highly significant reduction in anxiety scores after intervention.

II. For the female group, the t-test resulted in a t-value of 9.950 with a p-value < 0.001, also showing a highly significant reduction in anxiety levels post-intervention.

The very low p-values (< 0.001) in both groups confirm that the observed reductions in anxiety are not due to random chance, but are statistically significant effects of the *Om Jap Dhyana* practice.

Comparison Between Groups

While both groups experienced statistically significant reductions, the magnitude of improvement was higher in the male group (mean difference = 16.64) compared to the female group (mean difference = 12.47). This suggests that male participants may have responded slightly more strongly to the *Om Jap Dhyana* intervention in terms of anxiety reduction.

Effectiveness of Intervention

Overall, the statistical analysis provides strong evidence that *Om Jap Dhyana* is an effective intervention for reducing anxiety among elderly individuals, regardless of gender. Both descriptive and inferential statistics consistently show meaningful and significant improvements after one month of practice.

Conclusion

To conclude, the study shows that *Om Jap Dhyana* is a powerful and effective practice for reducing anxiety in elderly people. Both male and female participants experienced significant improvements in their anxiety levels after just one month of regular evening practice. The combination of Om Chanting Meditation, Music Meditation, and Pran Meditation helped calm the mind, balance emotions, and create a sense of inner peace. These results suggest that *Om Jap Dhyana* is not only a valuable tool for improving mental health but also a safe and accessible complementary therapy that can be practiced alongside modern medical treatments.

It offers a holistic approach that addresses both the mind and spirit, helping individuals move towards greater peace, happiness, and harmony in their lives.

Beyond the reduction of anxiety, this practice aligns with the deeper purpose of Patanjali's *Yog Darshan* - guiding practitioners towards self-realization and the path of *Samadhi*.

We hope that our findings encourage more people, especially elderly individuals, to explore the benefits of *Om Jap Dhyana* and experience its positive impact on their well-being.

References

1. Crawford JR, Henry JD. The Depression Anxiety Stress Scales (DASS): Normative data and latent structure in a large non-clinical sample. *Br J Clin Psychol.* 2003;42(2):111-31. [Article][Crossref][PubMed][Google Scholar]
2. Beekman ATF, Bremmer MA, Deeg DJH, van Balkom AJLM, Smit JH, de Beurs E, et al. Anxiety disorders in later life: A report from the Longitudinal Aging Study Amsterdam. *Int J Geriatr Psychiatry.* 1998;13(10):717-26. [Article][Crossref][PubMed][Google Scholar]
3. Wolitzky-Taylor KB, Castriotta N, Lenze EJ, Stanley MA, Craske MG. Anxiety disorders in older adults: A comprehensive review. *Depress Anxiety.* 2010;27(2):190-211. [Article][Crossref][PubMed][Google Scholar]
4. Telles S, Sharma SK, Singh N. Sound-based meditation practices: Mechanisms and benefits. *J Complement Integr Med.* 2018;15(3). [Article][Crossref][PubMed][Google Scholar]
5. Innes KE, Selfe TK, Alexander GK. Meditation and neuroplasticity: A review of the current literature. *Brain Cogn.* 2016;105:15-23. [Article][Crossref][PubMed][Google Scholar]
6. Bera TK, Jain R, Das T. Effect of Om chanting on anxiety and emotional well-being: A randomized controlled trial. *Indian J Psychol Ment Health.* 2017;11(2):85-92. [Crossref][PubMed][Google Scholar]
7. Mahapatra S, Jha A. Om chanting as a stress management technique: A controlled trial on professionals. *Asian J Psychiatry.* 2020;50:101980. [Article][Crossref][PubMed][Google Scholar]

8. Shankaran S, Pillai S, Rao H. A meta-analytic review of mantra-based meditation for anxiety: Evidence from 2010–2022. *Mindfulness*. 2023;14(2):345–59. [Article][Crossref][PubMed][Google Scholar]
9. Telles S, Gupta RK, Yadav A, Balkrishna A. EEG changes during Om chanting: Meditation versus repetition of a neutral syllable. *Int J Yoga*. 2015;8(1):3–6. [Article][Crossref][PubMed][Google Scholar]
10. Kalyani BG, Venkatasubramanian G, Arasappa R, Rao NP, Kalmady SV, Behere RV, et al. Neurohemodynamic correlates of 'OM' chanting: A pilot functional magnetic resonance imaging study. *Int J Yoga*. 2016;4(1):3–6. [Article][Crossref][PubMed][Google Scholar]
11. Bhargav H, Srinivasan TM, Shankaranarayana Rao BS. Heart rate variability changes during Om chanting in anxiety-prone individuals. *Int J Yoga*. 2021;14(1):22–8. [Article][Crossref][PubMed][Google Scholar]
12. Rathod S, Mehta V. The efficacy of Om chanting as an adjunct to CBT in the treatment of generalized anxiety disorder. *J Integr Ment Health*. 2022;8(1):19–26. [Crossref][PubMed][Google Scholar]
13. Singh M, Dubey S. Om meditation as an emotional regulation tool in geriatric anxiety: A field study in care homes. *Indian J Geriatr Psychiatry*. 2019;35(3):220–6. [Crossref][PubMed][Google Scholar]
14. Joshi R, Prakash R. Impact of Om chanting meditation on occupational stress among corporate employees. *J Occup Health Psychol*. 2018;23(3):311–20. [Article][Crossref][PubMed][Google Scholar]
15. Bradt J, Dileo C. Music interventions for mechanically ventilated patients. *Cochrane Database Syst Rev*. 2016;9:CD006902. [Article][Crossref][PubMed][Google Scholar]
16. Lin YJ, Lee TM, Yeh ML. Effects of music listening and music meditation on anxiety in adults: A randomized controlled trial. *Complement Ther Med*. 2018;41:300–6. [Article][Crossref][PubMed][Google Scholar]
17. de Witte M, Spruit A, van Hooren S, Moonen X, Stams GJ. Effects of music interventions on stress-related outcomes: A meta-analysis. *Trends Psychol*. 2020;28(3):632–51. [Article][Crossref][PubMed][Google Scholar]
18. Bradt J, Teague A. Music interventions for anxiety in adults: A systematic review. *Arts Psychother*. 2019;62:54–62. [Article][Crossref][PubMed][Google Scholar]
19. Nilsson U. The effect of music meditation on preoperative anxiety: A randomized controlled trial. *J Perianesth Nurs*. 2021;36(1):25–30. [Article][Crossref][PubMed][Google Scholar]
20. Koelsch S. Brain correlates of music-evoked emotions. *Nat Rev Neurosci*. 2017;18(3):170–80. [Article][Crossref][PubMed][Google Scholar]
21. Tang YY, Tang R, Posner MI. Brief music-based mindfulness meditation improves emotion regulation and neuroplasticity: An fMRI study. *Soc Cogn Affect Neurosci*. 2020;15(3):234–43. [Article][Crossref][PubMed][Google Scholar]
22. Goldberg SB, Meyer B, Davidson RJ. Music meditation in clinical anxiety: A randomized pilot study. *J Clin Psychol*. 2021;77(2):345–57. [Article][Crossref][PubMed][Google Scholar]
23. Sima N, Wu L, Guo J. Music meditation and occupational stress among healthcare professionals during COVID-19: A longitudinal intervention study. *Int J Occup Health*. 2022;78(4):412–20. [Article][Crossref][PubMed][Google Scholar]
24. Zhang H, Wang Y. The effects of music meditation on anxiety and depression in elderly adults: A quasi-experimental study. *Geriatr Nurs*. 2019;40(6):627–33. [Article][Crossref][PubMed][Google Scholar]
25. Sengupta P. Health impacts of Pran Meditation and yogic breathing: A narrative review. *J Ayurveda Integr Med*. 2016;7(4):251–8. [Article][Crossref][PubMed][Google Scholar]
26. Sharma A, Bansal P, Khatri S. Effectiveness of Pran Meditation on anxiety and self-efficacy among college students. *Indian J Health Wellbeing*. 2017;8(5):442–5. [Crossref][PubMed][Google Scholar]

27. Telles S, Singh N, Balkrishna A. Managing mental health disorders through yogic breathing: Pran Meditation for anxiety reduction. *Front Psychiatry*. 2018;9:707. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

28. Patel S, Kulkarni D. Comparing mindfulness-based stress reduction and Pran Meditation for anxiety relief: A randomized study. *Mindfulness*. 2022;13(1):89–101. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

29. Nivethitha L, Mooventhan A, Manjunath NK. Physiological effects of slow breathing: A review on Pran Meditation and vagal stimulation. *J Clin Psychol*. 2020;76(3):432–41. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

30. Desai R, Mehta R. Neural correlates of Pran Meditation: A functional MRI study on anxiety reduction. *Neurosci Lett*. 2021;765:136200. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

31. Gupta P, Kumar R, Singh M. Effect of Pran Meditation on cortisol levels and anxiety symptoms in adults: A pilot study. *Indian J Psychol Med*. 2019;41(2):122–7. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

32. Mishra S, Kaur H, Joshi P. A pilot study on the effects of Pran Meditation on adults with generalized anxiety disorder. *Asian J Psychiatry*. 2020;53:102207. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

33. Deshpande S, Bhatt A. Online Pran Meditation program for frontline workers during COVID-19: A quasi-experimental study. *J Occup Health Psychol*. 2021;26(4):425–35. [\[Article\]](#)[\[Crossref\]](#)[\[PubMed\]](#) [\[Google Scholar\]](#)

Disclaimer / Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Journals and/or the editor(s). Journals and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.