



An Interventional Study to Assess the Impact of Om Chanting on the Mental Health Status of NIHL

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(Received: 25 August 2025

Revised: 27 September 2025

Accepted: 14 October 2025)

KEYWORDS

Ayurveda, Noise-induced hearing loss, Om chanting, Meditation.

ABSTRACT:

Introduction: We cannot imagine a world without sound; it plays a key role in everyone's life. It's a form of energy that acts as a tool for knowledge and affects the mind. Different types of sounds convey different meanings. A few sounds assist with quieting us simultaneously some will bother. These sorts of undesirable and destructive sound frequencies are known as noise. Sounds can be harmful when they are too loud, even for a brief time, or when they are both loud and long-lasting. These sounds can damage sensitive structures in the inner ear and cause noise-induced hearing loss (NIHL). In today's busiest lifestyle, nobody is much bothered about the health hazards caused by the improper use of sense faculties.

Objectives: To assess the importance of Asatmyendriyarthasamyoga in the manifestation of disease.

To apply the concept of Asatmyendriyarthasamyoga in individuals with a habit of prolonged usage of headphones. The effect of OM chanting on mental health status and stress level of people suffering from NIHL

Methods: An interventional study involving 60 volunteers was selected and assessed using all three assessment tools i.e. three scales for assessing the Psychological and Disease along with Audiometry. Volunteers of either sex were grouped randomly into 2 groups for the study each group will have 30 volunteers. Group I – Advised to hear Om uchaaran for 10 min before and After work, Group II - Control Group

Results: Based on analysis and interventions conducted, it was concluded that the Atiyoga of Shruvanendriya (excessive and long-term exposure to sound) is the main cause of the manifestation of NIHL in individuals..

Conclusions: From the study, it can be concluded that Om chanting has a positive impact on the mental health status and stress level of people suffering from NIHL to an extent.

1. Introduction

Ayurveda is the information that demonstrates the suitable and unseemly, merry or hopeless states of living, what is favourable and unfavourable for life span as well as the proportion of life itself. Life or Ayu is the association of Sharira, Indriya, Manas & Atma. Any imperfection in the blend of the above highlights might influence the well-being and consequently Ayu. There are 3 causes for disease. They are Asatmyendriyarthasamyoga, Prajnaparadha and Parinama. Excessive loud sound and not hearing anything at all or insufficient contact with sound is considered as Atiyoga and Heenayoga of Shrotendriya while auditory contact with rough, horrific, terror, inauspiciousness

related to Mithiyayoga². Hearing music at a loud volume, watching TV from a short distance, working with the computer for a long time, etc. are examples of Asatmyendriyarthasamyoga. In present-day life, nobody is much bothered about the health hazards caused due to the improper use of sense faculties. Our present lifestyle induces our sense faculties to make sensory perceptions in the wrong way i.e. Mithiyayoga. Excess use of the sense organs (Atiyoga) also will cause health problems. Hence any kind of abnormal liaison of sense and perceptible subject will act as a pathological factor.

The sense faculties together with the mind get vitiated by Atiyoga, Ayoga & Mithiyayoga. Sabda is perceived through



Shrotrendriya because of the predominance of Akasa Mahabhuta in both Karna is the Adhishtana of Shrotrendriya and the act of interpretation is done by the Shrotrobudhi. Heenayoga, Atiyoga, Mithyayoga of Indriya is the main cause of Dukha (Disease).¹ Vata is predominant among three Doshas⁴.

Vata is responsible for the dissemination of Indriyas to their Vishaya and also for the movement of their Artha⁵.

Noise-induced hearing loss (NIHL) is a hearing impairment resulting from exposure to loud sound. Sounds can be destructive when they are excessively clear, in any event, for a short time frame, or when they are both noisy and durable. These sounds can harm delicate designs in the internal ear and cause (NIHL). When it's lost, hearing can't be reestablished.

"Om" is a sacred sound and spiritual symbol in Indian religions, including Hinduism, Buddhism,

Jainism, and Sikhism. Proper chanting or "Uchaarana" of Omkara, which is the chanting of "Om," is considered significant in these traditions. There are several aspects to consider regarding the importance of proper Omkara pronunciation with Standard Operating Procedures (SOPs), especially from a medical perspective.

SOP FOR AUM MEDITATION

Imagine the om mantra only on exhalation, if that feels more comfortable.

- Exhale: "Ommmmmmmm..." Inhale: " (silence)"
 - Exhale: "Ommmmmmmm..." Inhale: " (silence)"
 - Exhale: "Ommmmmmmm..." Inhale: " (silence)"
- Mind, Breath, and Mantra in unison:

In this practice, you come to experience the mind, breath, and mantra flowing in unison. this synchronization has a beautiful effect on meditation. simply allow the om mantra to come and go with each inhalation and exhalation. allow there to be no gap, no space, and no pause between inhalation and exhalation, or between exhalation and inhalation. The speed naturally slows: as you gently allow the om mantra to flow with the breath, the mind becomes calm. when the mind becomes calm, the body relaxes, and the breath becomes even smoother and slower. that rate of speed at which the om mantra is being repeated naturally slows down. it is not a matter of forcing the mantra to slow, but rather, this slowing comes quite naturally. allow the mind to stay wide awake and alert, as the om mantra and breath become naturally slower and slower. meditation will deepen.

As per SOP an MP3 file was made with Aumkara Chanting for 10 minutes and given to the subjects for listening during the time of meditation.

1. Correct Pronunciation:

- SOPs ensure that individuals are taught the correct way to pronounce Om, including the proper enunciation of each syllable (A-U-M).
- This prevents incorrect chanting that might diminish the spiritual and health benefits.

2. Breathing Techniques:

- SOPs include specific breathing techniques to accompany Om chanting. This ensures individuals get the full benefit of deep, controlled breathing.

3. Posture and Environment:

- SOPs specify the ideal posture for chanting Om, such as sitting cross-legged or in a comfortable seated position.
- Recommendations for a peaceful and clean environment can also be part of SOPs to enhance the experience.

Hence, an interventional study on an interventional study to Assess the Impact of OM Chanting on the mental health status of NIHL.

The study was aimed to assess the importance of Asatmyendriyarthasamyoga in the manifestation of a disease and apply the concept in individuals with a habit of prolonged usage of headphones while evaluating the incidence of Noise-induced Hearing Loss w.r.t astmyendriyarthasamyoga of Srotrendriya.

2. Objectives

AIM

An interventional study on Asatmyendriyarthasamyoga w.s.r to noise-induced hearing loss (NIHL) and the effect of OM chanting on mental health status and stress level of people suffering from NIHL

OBJECTIVES OF STUDY:

1. To assess the importance of Asatmyendriyarthasamyoga in the manifestation of disease.
2. To apply the concept of Asatmyendriyarthasamyoga in individuals with a habit of prolonged usage of headphones.
3. The effect of OM chanting on mental health status and stress level of people suffering from NIHL



3. Methods

Source of Data

A. Literary

The review of literature includes a screening of classical Ayurvedic literature, contemporary literature, modern literature, journals, and internet sources to collect sufficient data for the study done

B. Interventional Study:

Includes 3 instrumental interventions to assess various parameters. They are:

1. Psychological Assessment- Adult Temperament Questionnaire
2. Disease Assessment - Noise-Induced Hearing Loss Questionnaire
3. Diagnostic Tool – Audiometry

Method of collection of Data:

1. Study Design: Literary Study, Interventional Study to evaluate the incidence of Noise-induced Hearing Loss w.r.t astmyendriyartha Samyoga of Srotrendriya

- a) Literary Study: The review of literature includes a screening of classical Ayurvedic literature, contemporary literature, modern literature, journals, and internet sources to collect sufficient data for the study done
- b) Interventional Study: The study was conducted in the following stages:
 - Stage I: Exploration of the concept and practical applicability of astmyendriyartha Samyoga of Srotrendriya.
 - Stage II: The aim is to evaluate the effect of meditation and technical alterations in Asatmyendriyartha samyoga w.s.r to noise-induced hearing loss (NIHL)

60 volunteers were assessed using all three assessment tools i.e. two scales for assessing the Psychological and Disease along with Audiometry.

Volunteers of either sex were grouped randomly into 2 groups for the study each group had 30 volunteers.

- Group I – Advised to do meditation for 10 minutes before and After work
- Group II- Control Group

Inclusion criteria

- Individuals between the age group of 18-40 years irrespective of gender.
- Individuals who are using regular 8-12 hrs of headphones for at least 1 year.
- Individuals willing to participate and ready to give informed consent.

Exclusion criteria

- Individuals who are suffering from any kind of ear disease.
- Individuals who are suffering from any systemic, congenital, or metabolic disorders.
- Individuals who are suffering from psychological disorders.
- Individuals who have related degeneration

4. Results

The Structure of Temperament Questionnaire (STQ) is a self-report (for adult versions) or observer-administered (for children) questionnaire measuring 12 biologically-based characteristics of behaviour). In the First group where meditation was used during working hours, the mean value of assessment decreased from 198.422 to 142.46 on the 30th day and later it decreased to 122.06 on the 60th day of assessment. In the second group which was kept as control without interventions the mean value of assessment increased from 196.542 to 204.33 on the 30th day and later it increased to 208.64 on the 60th day of assessment.

A task-based questionnaire could be used to estimate noise-exposure, it was not clear from their data if subjects could recall their activities with sufficient precision to provide an accurate estimate of their actual exposure levels, as measured by dosimetry. The questionnaires were administered by the author in a face-to-face interview. In the First group where OM meditation was used during working hours, the mean value of assessment decreased from 45 to 38 on the 30th day and later it decreased to 31 on the 60th day of assessment. In the second group which was kept as control without interventions the mean value of assessment increased from 41 to 42 on the 30th day and later it increased to 45 on the 60th day of assessment.

Audiometry consists of tests of function of the hearing mechanism. This includes tests of mechanical sound transmission (middle ear function), neural sound transmission (cochlear function), and speech discrimination ability (central integration). In the first group where OM meditation was used during working hours the mean value of assessment decreased



from 62.1 to 57.6 on the 60th day of assessment. In the second group which was kept as a control without interventions the mean value of assessment increased from 60.7 to 67.93 on the 60th day of assessment.

5. Discussion

Asatmyendriyatha Samyoga has its importance in the manifestation of disease. Atiyoga, Mithyayoga and Hinayoga can produce disease. NIHL is a problem faced by more than 60% of the people in our society due to excess & improper exposure to sound. Exposure to high-decibel sounds for a long duration, will cause the vitiation of Doshas in the Shrovanendriya causing the symptoms like karna nadha, bhadriya, etc. In brief, we can say that NIHL is a preventable entity if an individual exposed to noise is made aware of the ways and means to protect oneself. This is important in a way because if damage to hair cells is once done, it cannot be reversed. There is also ongoing research for audiometric tests to know the prior susceptibility of an individual toward developing noise-induced hearing loss. There is also research given the newer pharmacological treatment and various newer rehabilitative modalities that have been made available to combat the effect of noise-induced hearing loss on the physical and mental well-being of an individual.

The study's findings indicate that when compared to the control group, results for Group 1, in which meditation training was given, are statistically significant when compared to the results for the control group. The most frequently employed tactic that also results in inappropriate sound levels is the use of headphones or personal music players, according to data from studies that have been compiled.

The sound energy level is influenced by three variables: intensity (loudness), duration (amount of time), and frequency. High frequencies and loud volume have more of an impact. PLD and headphone use over an extended period can seriously damage hearing as tinnitus and cause hearing loss.

Atiyoga and Mithyayoga of Shrovanendriya can be compared to the unlucky effects of unworthy listening with PLDs and headphones. The idea of Asatmyaindriyarth samyoga, which refers to the incorrect bondage of indriya artha with indriyas, was referenced by ancient Ayurvedic writers as having the negative consequence of aggravating doshas. Tinnitus (Karnanada and Karnakshweda) and karnabadhriya are both negative outcomes of the vitiation of the vata doshas caused by the confluence of shabda, or sound, of an unwholesome kind, duration, or distance with Shrovanendriya. So, from the above study, we can conclude that NIHL can be controlled by using Meditation which helps to the hearing ability to an extent.

Stress Reduction:

- Chanting Om with proper SOPs and focus can trigger the relaxation response, reducing stress hormones like cortisol.
- Lowering stress levels can have numerous positive effects on overall health, from improving sleep to boosting the immune system.

Blood Pressure and Heart Health:

- Regular practice of Om chanting, especially with SOPs emphasizing correct breathing, can help regulate blood pressure.
- Improved heart health is linked to reduced stress and better respiratory function.

Mental Health:

- Om chanting is associated with improved mental health, including reduced symptoms of anxiety and depression.
- The meditative aspects of Om chanting can promote mindfulness, which has a range of benefits for mental well-being.

Voice and Respiratory Health:

- Proper Omkara chanting involves controlled vocalization, which can strengthen vocal cords and improve voice quality.
- Deep breathing associated with Om chanting enhances lung capacity and respiratory function.
- In conclusion, proper Omkara Uchaarana with SOPs not only holds spiritual significance but also offers various health benefits. From stress reduction to improved respiratory health and mental well-being, the combination of correct pronunciation, breathing techniques, and adherence to SOPs can lead to a holistic approach to health and wellness.

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