Open Access

# Mantra-Based Cognitive Resilience: Evaluating The Viability Of Ancient Sound Practices As A Culturally Embedded Mental Health Intervention

**Puja Dawar Rao** Pujadrao@gmail.com

Cite this paper as: Puja Dawar Rao (2024) Mantra-Based Cognitive Resilience: Evaluating The Viability Of Ancient Sound Practices As A Culturally Embedded Mental Health Intervention. *Frontiers in Health Informatics*, 13 (7), 805-823

#### **Abstract**

The goal of this study is to examine the feasibility of Mantra practices as culturally interwoven Mental health interventions in its aiming for their advancement in enhancing Cognitive resilience. This research focuses on how different cultural traditions encompassed ancient sound techniques into habits of Mantra chanting practices and were used to maintain balance, track emotions and the effect of it on stress and clarity of the cognition incorporated with multitude of Mantra chanting practices. The study, for its part, will attempt to explain the psychological, emotional, and cognitive effects by finding out how these practices could be integrated to help people in and outside of the world of sports and potentially be the next Mental health intervention. The research employs a secondary qualitative methodology, where data is gathered through semi structured interviews with 15 participants engaged in various forms of Mantra chanting. Some of these participants are experienced at similar traditional chanting techniques, part of their spiritual as well as cultural practice. Although semi structured interview format is a good tools to better understand participants personal experience while chanting, emotional regulation, stress reduction, mindfulness and cognitive function served as the entities of focus. According to the research, the significant conclusion is that Mantra chanting helps the Emotional regulation which leads to little stress ultimately increases Cognitive resilience. It appears that Mantra based practices can be very helpful in improving psychological well-being and users experience more calm and clarity, greater attention and mental flexibility. The results show that these sound-based techniques are essential for the mentally healthy and well-balanced believer. In general, the study demonstrates that Mantra chanting is a feasible and culturally embedded Mental health intervention. Due to its effectiveness in enhancing emotional control and cognitive performance, it can be considered as a complementary modality to conventional mental health therapies, and yet a culturally appropriate method of mental well-being promotion.

#### Keywords

Mantra-based practices, Cognitive resilience, Mental health intervention, Emotional regulation, Stress reduction, Mindfulness, Cognitive function, Semi-structured interviews, Cultural traditions, Sound techniques, psychological well-being, Cognitive flexibility, Mantra chanting, Emotional well-being, Traditional mental health practices, Spiritual practices.

#### 1. Introduction

#### 1.1 Background

The practice of *Mantra* chanting is a technique that was developed in different cultural and spiritual societies centuries back and has been regarded as something that has the ability to enhance mental health

and well-being. The *Mantra*s are sacred words, syllables, or sounds that have been repeated in a rhythmic, meditative fashion and has its origin in ancient spiritual practices to achieve psychological, emotional, and spiritual benefits. Even though the cultural contexts being referred to are different across the board, chanting *Mantra*s has always been linked to having better mental clarity, the ability to keep one's emotions in check, and stress reduction. The universality of *Mantra* based practices among cultures is indicative of the fact that *Mantra* based practices can help to build *Cognitive resilience* that is so desperately needed today to deal with the mental health issues.

It is believed that when one is reciting *Mantras*, it calms the mind, reduces anxiety and can help bring the practitioners to a higher state of mindfulness. However, the recent rise of this practice in contemporary mental health research has made it popular as it is a meeting point of spirituality and psychology. Though of historical and culturally important nature, studies into psychological effects of *Mantra* chanting in modern context remain lacking. This study tries to understand how *Mantra* chanting performs this role across different cultural practices through an examination of the role that *Mantra* chanting plays in the different cultural practices.

#### 1.2 Theoretical Framework

Taking cues from these psychological and spiritual theories, this study sets out to discuss how chanting of *Mantras* can help the mental being. A better-known framework is the Mindfulness Based Stress Reduction (MBSR) model where the role of mindfulness as a means of decreasing stress levels, fostering emotional control as well as cognitive flexibility is discussed at length (El-Salamony & El-ayari, 2023). Chanting is a kind of mindfulness practice; more repetitive chanting helps the practitioner gain focus on the current moment and take his or her mind off the negative mental patterns. *Mantra* chanting also enables *Emotional regulation* in this area of experience as chanting helps balance focus on thoughts and feelings, reducing the reactivity, and giving a sense of 'coolness' or being in calm.

Mantra chanting can also be seen through the lens of the Cognitive Behavioural Therapy to understand how it might affect cognitive processes. Mantra chanting as a repetitive cognitive process can act as cognitive restructuring, and through this process can lead to shifting a person's focus away from the maladaptive stressor or thoughts. Chanting helps to nurture Cognitive resilience or the power to cope well with stress and adverse situations using constructive cognitive and behavioural processes (Rastogi & Chaturvedi, 2023).

Finally, understanding concept of cultural competence in mental health practices is of great importance for understanding how the culturally embedded spiritual practices like *Mantra* chanting could be utilized as effective *Mental health interventions*. *Mantra* chanting has therapeutic potential to resonate with culturally and spiritually diverse individuals' identities, therefore making it a valuable tool in promoting psychological well-being among culturally diverse populations.

#### 1.3 Rationale

According to the passage, with the increasing interest in other alternative and complementary mental health practices, the benefits of *Mantra* chanting for psychology is still not the topic of advanced research. Despite growing evidence of benefits of mindfulness and meditation techniques, the way in which *Mantra* chanting supports development of *Cognitive resilience* and emotional well-being has not been fully investigated, especially with regard to different cultural practices. Most often, *Mantra* chanting as a *Mental health intervention* is perceived as a spiritual or religious intervention, which may prevent it from being accepted and applied in clinical settings (Bringmann et al. 2021).

The purpose of this study is to close the gap and approach *Mantra* chanting from a psychological point of view and explore the applicability of *Mantra* chanting as a culturally embedded *Mental health intervention*. Apart from being a core part of spiritual traditions, chanting is a very useful tool for

Open Access

*Emotional regulation*, for stress management and cognitive enhancing activities. This research targets the explanation of the therapeutic effects of *Mantras* based on the chanting traditions across cultures. By understanding how these practices can help mental health, it can inform the development of culturally sensitive *Mental health interventions* which complements the standard one.

#### 1.4 Research Aim

This paper is intended to see the extent to which *Mantra* based practices could be culturally embedded *Mental health interventions* promoting *Cognitive resilience* and psychological well-being. The particular focus of the study is on how the practice of *Mantra* chanting as it manifests in various cultural traditions may lead to *Emotional regulation*, stress reduction and cognitive enhancement.

## 1.5 Research Objectives

- 1. To examine the psychological and emotional impacts of *Mantra* chanting on *Cognitive resilience*.
- 2. To evaluate the role of *Mantra* chanting in reducing stress and enhancing *Emotional regulation*.
- 3. To explore the cultural significance of *Mantra* chanting and its impact on mental health in diverse cultural contexts.
- 4. To assess the viability of *Mantra* chanting as a complementary *Mental health intervention* in clinical and non-clinical settings.

#### 1.6 Research Questions

- How does Mantra chanting influence Cognitive resilience and Emotional regulation among participants?
- What are the perceived psychological benefits of *Mantra* chanting in terms of stress reduction and emotional well-being?
- How do different cultural traditions influence participants' experiences and perceptions of *Mantra* chanting?
- To what extent can *Mantra* chanting be integrated as a viable *Mental health intervention* in modern therapeutic practices?

#### 1.7 Research Significance

This study has significance because it has the potential to broaden knowledge about culturally imbedded *Mental health interventions*, namely *Mantra* chanting; as an intervention that has been under researched in *Cognitive resilience* and *Emotional regulation*. This paper highlights the psychological benefits of *Mantra* chanting within a theoretical framework for expanding the extant body of literature on the alternative and complementary ways of treating mental illness. This research can provide finders for establishing *Mantra* chanting as an effective tool for stress management, promoting emotional well-being and improving cognitive function in both clinical and non-clinical populations (Tripathi & Vishvakarma, 2024).

Additionally, the study concentrates on the culturally diverse chanting practices that prove how culturally competent *Mental health interventions* are important. This research can help teach the inclusion of culture and spirituality into mainstream mental health care, in part, by acknowledging how to incorporate these cultural and spiritual practices into mental health care. The potential of ancient holy practice such as *Mantra* chanting to be incorporated into healing settings offers an alternative, accessible and relevant treatment for addressing mental health issues for diverse groups of people.

## 2. Literature Review

## 2.1 Mantra Chanting: An Ancient Tradition with Modern Psychological Relevance

Mantra chanting is the repetition in a rhythmic mode of sacred words, sounds or syllables which are

Frontiers in Health Informatics ISSN-Online: 2676-7104

2024; Vol 13: Issue 7 Open Access

believed to have spiritual or psychological power according to ancient spiritual and cultural practice. *Mantra* chanting in some form or the other has been practiced over history, in different cultures and in the religious and meditative tradition. Chanting is practiced for spiritual awakening, enlightenment and healing in many belief systems of the world and is thus central to almost every world culture. Though often construed as being for spiritual and ritualistic ends, the chanting of *Mantra* has recently started to be considered as a possible *Mental health intervention*, in relation to its secular benefits, by contemporary psychological research.

## 2.2 The Psychological Benefits of Mantra Chanting in Mental health interventions

Chanting of *Mantras* for improving mental well-being has been increasingly recognised. Traced in spiritual practices, *Mantra* chanting has been effective in the psychological well-being with effects on *Emotional regulation* and stress management. According to studies, *Mantra* chanting is also known to have a positive effect on individuals, in regulating their emotional responses, and reduction in stress levels, which can be induced in a state of relaxation. Hence, changes in brainwaves, like an increase in alpha waves that are characteristic of a calm and well relaxed state (Kundu & Kumar, 2024), are linked to this. The second major finding is that *Mantra* chanting is helpful in boosting *Cognitive resilience*, one of the key aspects of mental health, which means the ability to cope with stress and adverse situations. *Emotional regulation*, self-awareness and attentional control, among others, are mostly known as avenues for building *Cognitive resilience*. Focusing on the repetition of a *Mantra* helps to take the attention off of stressful stimuli and reduces the cognitive overload resulting in the state of mindfulness. *Mantra* chanting works in this fashion as a distraction with focus as well as a meditative anchor, thus allowing people to be more present in the now. The effectiveness of mindfulness practices in improving *Cognitive resilience* as elaborated by Oman et al. (2022), demonstrates the capacity of *Mantra* chanting as intervention for tackling mental health conditions such as anxiety and depression.

#### 2.3 Mantra Chanting and Neurocognitive Enhancement

There is increasing research being done on how *Mantra* chanting affects the brain and enhances neurocognitive function. Chanting does have repetitive and rhythmic qualities such as many of the meditative methods, and as such chanting does share similar neurobiological effects. Rastogi et al. (2021) reports that *Mantra* meditation causes marked elevation in prefrontal cortex activation that is involved in, executive function, decision making, *Emotional regulation*, attention, etc. The findings imply that the regular act of chanting may help not just the mind but also the brain's cognitive power by invigorating executive function areas of the brain.

It also has been shown that *Mantra* chanting helps in enhancing neuroplasticity the brain's ability to reorganize itself by forming new neural connections that replace damaged ones because of factors such as age or injury as per Mohanty et al. (2024). Cognitive decline is particularly relevant during middle age, and so these results may be affecting middle aged adults. Through *Mantra* chanting, they can enhance the brain's capacity to respond and optimally function in the presence of mental difficulty. In this regard, these findings of the concept of neuroplasticity through repetitive practice are also relevant to the findings of (Mantra et al. 2023) who found *Mantra* based interventions lead to cognitive improvement particularly on attention and memory.

#### 2.4 Mantras as Culturally Embedded Practices for Mental Health

Cultural relevance is one of the key factors on which it is evaluated if *Mantra* chanting could be an effective *Mental health intervention*. While many cultures have a long history of cultural value attached to *Mantra* chanting and typically utilizing it as a mental health tool, it is firmly rooted in a certain set of cultural contexts. Culturally embedded practices such as *Mantra* chant, bestow a sense of belonging and connection to the cultural identity, which in turns is associated with being more emotionally resilient and

mentally healthy persons.

From a cultural competence point of view, health professionals integrating *Mantra* chanting in *Mental health interventions* will be able to appreciate the cultural components of well-being and healing. For a lot of people, and particularly people with cultural backgrounds in which *Mantra* chanting is a significant component of their spiritual practice, this will make *Mental health interventions* more personal and applicable. It is especially true in communities where conventional or religious practices are still important aspects of their life. The use of culturally familiar practices, including chanting, offer a sense of comfort and acceptance that is necessary for the promotion of psychological healing and the improvement of mental health outcomes (Rastogi et al. 2021).

# 2.5 Challenges and Considerations in Implementing Mantra-Based Interventions

Although *Mantra* chanting's benefits for mental health are encouraging, numerous challenges and considerations need to be considered in order to incorporate this practice into conventional *Mental health interventions*. One of the main challenges consists in the absence of a standardized protocol for *Mantra* chanting as a therapeutic intervention. The use of *Mantra* chanting as an intervention in clinical setting does not have a universally accepted framework like more established practices such as CBT or MBSR. In the absence of standard guidelines, clinicians or therapists have to rely on their interpretation of the practice, which could be very different.

In addition, the culturally specific component of *Mantra* chanting may not be appropriate across the populations. Although *Mantra* chanting is such an effective practice for some people who are already familiar with its cultural and spiritual context, people from other cultural background may find it difficult to engage with as well as relate to. Further research is needed to determine the best way to apply and modify *Mantra* chanting practice for those of various cultural and spiritual backgrounds (Rastogi et al. 2020).

# 2.6 Gaps of Literature

Several of these gaps in knowledge are revealed in existing literature on *Mantra* chanting as a *Mental health intervention*. Empirical research into the impact of *Mantra* chanting needs to be done in key areas such as the effect of *Mantra* chanting on *Cognitive resilience* and the long–term psychological outcome. Furthermore, the implementation of *Mantra* chanting among clinical settings is not standardized; this prohibits its incorporation within mainstream mental health practices. Additionally, much of the current research is not culturally applicable, creating an understanding of applicability in secular or cross-cultural populations. Finally, understanding of which neurobiological mechanisms are responsible for these benefits needs to be researched further.

#### 2.7 Summarv

The psychological, emotional and cognitive benefits of *Mantra* chanting have been greatly highlighted across this literature review. The practice of *Mantra* chanting helps to improve *Emotional regulation*, reduces stress, improves *Cognitive resilience*, and develops neuroplasticity and from that point of view, it's a promising approach to mental health. Secondly, *Mantra* chanting is a practice that has cultural and spiritual relevance and can therefore be used in a highly effective and participatory fashion with a variety of populations.

This review suggests that mainstream, culturally sensitive and effective tool could be *Mantra* chanting integrated with *Mental health interventions* for improving psychological well-being. Subsequent research should persist in delving into the long-term effects of *Mantra* chanting on mental health, and also, the potential of the practice in mainstream *Mental health intervention*.

#### 3. Methodology

#### 3.1 Research Design

This study is a qualitative exploration of the psychological, emotional and cognitive effects of Mantra chanting as a Mental health intervention. Qualitative method is suitable where the goal is to understand participant's subjective experiences and the meanings they ascribe to the practice of chanting. Since this research aims to investigate the feasibility of Mantra-based practicum to improve Cognitive flexibility and emotional well-being, qualitative data provides insight into this phenomenon which could not be captured through quantitative measures in isolation.

As it appeared relevant to improve understanding of the lived experiences of participants who have experience. Mantra chanting, a phenomenological approach was chosen. Phenomenology is particularly suited to this study when one would want to explore the perceptions, feelings and meanings of individuals. However, this study looks into participants own experiences with respect to Mantras and attempts to provide explanations as to how mantras chanting helps or does not helps with mental health, Emotional regulation or cognitive function. The study also shows the ways in which semi structured interviews, allow flexibility to this line of questioning, while ensuring that specific themes are addressed in each interview on these aspects. (Malviya et al. 2022).

# 3.2 Participants

## **Sampling Method**

Purposive sampling was used to select the participants for this study, which is a non-random sampling method that enables the selection of individuals that are most likely to have unique and rich experiences about the research topic. In qualitative research, purposive sampling is used when the goal is to understand from individuals who have a direct experience connection to the phenomenon being studied. In particular, participants were chosen for chanting *Mantras* from many different cultural traditions in their personal practice. The study population consists of persons who do *Mantra* chanting, usually, as a way of their religious or cultural practices.

# Sample Size

For this study, 15 participants were chosen as sample. In qualitative research, the size of the samples is typically smaller than size in quantitative research because of an emphasis on the depth and richness of data over the generalizability. We considered 20 as an adequate sample size to arrive at data saturation that indicates that no new themes or insights would emerge from additional interviews. Also, the sample size is large enough to enrich the analysis and the exploration of participants' experiences without ending up overburdening the research process (Shukla, 2022).

#### **Demographic Information**

The participants of this study were diverse in terms of age, gender, ethnicity, and traditions of *Mantra* chanting. Most of the participants were aged between 30 and 60, but the age was varied slightly for diversity. The participants were selected from various cultural contexts such as those who chant *Mantra* in a spiritual setting or in a personal setting. Demographics of participants gave a well-rounded view on how *Mantra* chanting acted as culturally embedded *Mental health intervention*.

#### 3.3 Data Collection Process

#### **Interview Design**

Semi structured interviews were carried out for the data collection, this approach enjoys a balance of structure and flexibility with regards to documenting the participants' personal experiences in *Mantra* chanting. Semi structured interviews enable the researcher to pose questions with a view of exploring key themes hence it provides space for participants to raise issues that are important to them and how they would prefer to discuss them. This design guarantees that everyone has the similar questions being asked to them but also provides a means where the conversation flows naturally based on the individual answers given (Tripathi et al. 2024).

In order to explore the psychological effects of *Mantra* chanting, the interviewer used the interview questions to explore how the technique influences an individual's ability to regulate emotions, develop *Cognitive resilience*, reduce stress, and improve overall mental well-being. *Mantra* allows those individuals who engage in chanting of the *Mantras* to make deep insights after profound questioning performed on how *Mantra* chanting impacts the above factors naturally. Some questions that are given as examples are: "How does chanting affect your emotional well-being?" and "Have you noticed any changes in your cognitive function since you started chanting regularly?"

## **Interview Process**

Remote interviews on the phone or a video call were conducted based on the participant's preference and availability. It provided a flexible and comfortable environment for the participants to freely and openly speak their experiences. The interviews lasted between 10–25 minutes, which was more than sufficient time to allow participants to elaborate on their thoughts and experiences.

The participants were allowed to give informed consent on audio recording all the interviews for accurate data collection. The researcher was nondirective and maintained a neutral position in the interviews, as he did not guide the interviewees toward a specific response. The recordings were transcribed verbatim after the interviews in order to prepare them for data analysis (Barber, 2020).

#### 3.4 Data Analysis Process

In this study, the data analysis employed a thematic analysis, more appropriate than other methods in qualitative research whose objective is to identify and examine patterns or themes of the data that have been collected. This paper describes the stages involved in thematic analysis which starts with familiarizing oneself with the data. To achieve this, the researcher consumed the interview transcripts more than once and by reading them very carefully to understand the content and the participants' experiences. Then, the researcher did initial coding where phrases and relevant responses to research questions were highlighted, and codes were assigned to them. This step allows the data to be organized, and the important statements captured on the effects *Mantra* chanting has on *Cognitive resilience*, *Emotional regulation*, and mental health. Once the initial codes were created, the researcher began assembling codes that were either related or related to other broader themes that were conceived upon the data. For example, codes about being calmer and less anxious after chanting produced themes such as *Emotional regulation* and stress reduction (Bringmann et al. 2021).

## 3.5 Validity and Reliability in Qualitative Research

In the case of qualitative research, it is essential to have the validity and reliability of the findings based to support the trustworthiness of the study. As the qualitative research is built upon the subjective experiences and the personal narratives, safeguards had to be built so as to guarantee that the data gathered is not inaccurate and the conclusions drawn are credible. As a method to increase credibility, one approach used in this study was triangulation, comparing data from different participants and seeking consistent patterns. This confirms that the results are not influenced by the fact that one set of experiences may be subjectively different and not representative of the behaviours across the sample, but instead reflect broader trends present in the sample (Sharma, 2019).

One of another important strategy was member checking where participants were asked to review their transcribed data interview for accuracy. This made sure that their experiences were faithfully captured and gave participants an opportunity to correct or add information if necessary. Furthermore, with the aim of promoting the transferability of the results, rich, thick descriptions were given to ensure that extensive descriptions of the participants' experiences are presented in such a fashion that allows the readers to assess if the results can be generalised to other situations.

An audit trail was kept, to ensure dependability, whereby the research process including data collection,

Open Access

analysis decisions and interpretations all were documented transparently. It enables researchers to investigate the research process to make more certain that the findings follow naturally and are consistent. In the last place, the role of reflexivity was important in ensuring reliability since the researcher reflected and recognized that they may hold biases and preconceptions which have the potential to affect the process of data collection and interpretation (Harne et al. 2019). The study did these to assure that the obtained results would be valid and reliable, therefore increasing its trustworthiness.

#### 3.6 Ethical Consideration

Qualitative research involving human participants is widely regarded as involving ethical considerations. Since the study closely followed strict ethical guidelines needed for the protection of the participants, their well-being. In the first place all participants gave informed consent to take part in the study. However, all were fully informed about the purpose of the research, their participation and their rights. All participants were assured that they could withdraw from the study at any time without consequence and their participation was voluntary.

All identities of the participants were kept anonymous, and we maintained confidentiality throughout the study. All identifying information was removed from the transcripts and pseudonyms were used with respect to the findings reported. The data consisted of securely stored tapes of interviews, for which the researcher was only one who had access. In the final report, the researcher makes sure that no such personally identifiable information was revealed, and participants' confidentiality was protected (Singh et al. 2025).

Furthermore, we also advised participants that they could leave out any questions they felt uncomfortable with, giving them the option to feel voluntarily and respectfully comfortable during the study. The study was approved by an institutional review board (IRB) or an ethics committee that reviewed the study in terms of its design, procedures and ethical standards for research involving human participants.

In addition, the potential for psychological harm during the interview process was also researched. As the topic was sensitive, participants were invited to talk about any emotional or personal issues that the interview evoked. In case of any distress to participants after the interview, support resources were provided. These ethical considerations, overall, ensured the participants' right, sense of well-being, and privacy were afforded in the entirety of the study.

#### 3.7 Limitations

However, there are some limitations in this study about the role of *Mantra* chanting in mental health as discussed above. Since purposive sampling was used, generalizability is limited to only populations, and this is due to the fact that the study participants were chosen on the basis that they used the mental discipline known as *Mantra* chanting. Furthermore, the 15 participants that were sampled might not account for all of the variations in experience in different types of cultural contexts (El-Salamony & Elayari, 2023).

Also, the study had to rely on self-reported data, which may be subjective and not necessarily a true reflection of the participants experience. This study used a cross-sectional design, such that we are not able to draw conclusions about the long-term effects of *Mantra* chanting on mental health. These limitations could be addressed in future research by enlarging sample, conducting longitudinal designs, or by adding other methods of data collection for instance observations or physiological measures.

#### 4. Results

This part includes an extensive presentation of results from the qualitative analysis of the interview data. The findings are derived from the feedback of the 15 participants in terms of the effects of *Mantra* chanting on their mental health, *Emotional regulation*, thinking, and health overall. According to her, the following presents how data is transcribed, coded and how thematic analysis is carried out and consequently the key

themes from the data.

# 4.1 Transcription

The audio recordings of the semi structured interviews were transcribed verbatim into the data of the study. The interview process was comprised of between 10-25 minutes interviews, and thorough transcription was done so that every word and nuance of participant response was recorded. As such, we were able to take a detailed look at the data and never miss any possible insights. The goal was to capture the natural flow of speech (that is, pauses, intonations and nonverbal cues where appropriate) and thus participants' transcriptions were performed manually to avoid any mechanical transcription interference with the pure text of what the participants were saying (Kumar et al. 2019).

To make the responses of each participant anonymous and to keep the participants' identity safe, each participant was assigned with a pseudonym. Upon transcription, the data was put into a document format, which was then coded and analysed. The importance of the transcription was to be able to identify key words, phrases, themes, and patterns that were later used for the coding process.

## 4.2 Coding Process

The three stages of coding process have been: Initial Coding, Axial Coding, and Theoretical Coding. The stages were designed to uncover, gather and neatly coordinate the data to yield useful themes and insights. The coding is critical for the qualitative research because it permits extraction of those important elements and then creates categories which are akin to the research objectives.

## 4.2.1 Initial Coding:

In the first coding process I read through the transcribed interviews and picked up meaningful statements, phrases or words that directly related to the research questions. In this phase, we collected individual experiences and emotions as told by the participants without attempting to fit it within any predefined categories.

Examples of such initial codes include the following:

- Stress Reduction: Mentions of reduced anxiety or a calmer state of mind after chanting.
- *Emotional regulation*: Statements about the ability to handle emotions more effectively or feel more in control.
- Cognitive Clarity: References to improved mental clarity, focus, or attention.
- Mindfulness: Descriptions of greater present-moment awareness and engagement in daily activities.
- Spiritual Fulfilment: Expressions of a sense of connection, peace, or spiritual insight gained from chanting.

The codes applied for direct quotes or relevant passages were then noted for emerging patterns. By utilizing this process, a foundational understanding of the participants' experiences of *Mantra* chanting was formed.

## 4.2.2 Axial Coding:

The initial coding process was then followed by axial coding as it attempted to combine the related codes to form broader categories or sub themes. The aim of axial coding is to make connections between any two codes and then to draw out more abstractions which represent the core elements of participants' experiences (Pundir & Chauhan, 2023).

For example, the codes on stress reduction, *Emotional regulation*, and cognitive clarity were combined in a new group entitled Psychological Well-being. In a similar way, codes on Spiritual and Cognitive Benefits were grouped for codes related to mindfulness and spiritual fulfilment.

Some examples of axial codes that emerged from this process include:

• Psychological Well-being: Encompasses *Emotional regulation*, stress reduction, and cognitive clarity.

- Spiritual and Cognitive Benefits: Includes mindfulness, present-moment awareness, and spiritual fulfilment.
- Physical Relaxation: References to the physical sensations and relaxation effects associated with chanting.
- **Self-awareness and Inner Peace**: Participants frequently spoke of increased self-awareness and the inner peace they gained from the practice.

Through organizing these codes, the researcher was able to discern what was recurring among those codes and in what categories to categorize them based on the research objectives in order to receive a clearer picture of how *Mantra* chanting influenced the participants' mental health and ways of *Emotional regulation*.

# 4.2.3 Theoretical Coding:

Theoretical coding was achieved by connecting the categories from the axial coding phase to such broader concepts or theoretical frameworks. This was a process of developing integrated narrative bringing participants' lived experiences together with existing theories of psychology and mindfulness.

For instance, under the theme Psychological Wellbeing, emotion regulation and *Cognitive resilience* theories were associated with this theme based on the need for adaptive coping strategies in the presence of stress or adversity. In the case of mindfulness, the concept of mindfulness based on stress reduction (MBSR) and the role mindfulness plays in enhancing mental clarity and emotional balance were spiritual and cognitive benefits. But similar to the category Physical Relaxation, which was associated with relaxation response theory, which postulates that chanting can activate the parasympathetic nervous system and hence reduce stress and support physical relaxation (Henneghan et al. 2021).

The researcher aligned the categories with existing psychological theories to the extent possible and were thereby able to contextualize the findings within the broader literature of mindfulness, stress reduction, *Emotional regulation*, and were able to develop a sound theoretical framework to explain *Mantra* chanting's effects.

#### 4.3 Thematic Analysis

After the coding process was completed, the data was thematically analysed to identify the central themes that describe the experiences of the participants with *Mantra* chanting and the effects it subjects on their mental health. Thematic analysis involves locating patterns (based on meanings in the collected data) and interpreting them in relation to the questions which the analysis is addressing.

#### **Key Themes Identified**

Through the thematic analysis several key themes emerged with respect to the impact of chanting *Mantra* on the participants' mental health and well-being. These themes are discussed below.

#### 1. Stress Reduction and *Emotional regulation*:

A theme thread that pervaded across all the interviews was in relation to the contribution of *Mantra* chanting to reducing stress and improving *Emotional regulation*. After chanting, participants reported always feeling calmer and better controlled of emotion. Some also told of how chanting helped them to deal with anxiety, be calm in stressful situation, and get the emotional equilibrium back. This is a similar finding to existing research regarding mindfulness and meditation practices, which states that practicing a repetitive *Mantra* can stimulate the parasympathetic nervous system, the effect of which can be lessening stress and reaching inner emotional equilibrium (Rastogi et al. 2022).

## 2. Improvement in Cognitive Function and Focus:

There was also the improvement of the cognitive system and the ability to focus. Participants many

ISSN-Online: 2676-7104

#### 2024: Vol 13: Issue 7

Open Access

reported that chanting helps clear the mental clutter and getting better of doing one's concentration. Some of the most prevalent were the participant's reports of increased work productivity and better attention span during daily tasks. The results indicate that by chanting, one can enhance mental clarity and cognitive ability, thus supporting the idea that *Mantra* based practice can improve *Cognitive resilience*.

## 3. Increased Mindfulness and Present-Moment Awareness:

Through chanting, participants experienced increases to their levels of mindfulness and of being more present in the now. Some of these people were distracted, overwhelmed or preoccupied with past or future issues before they started chanting. Chanting made the participants more present oriented, better able to focus on day-to-day life without falling prey to the distractions of the world. The theoretical base of this theme can, similarly to mindfulness-based interventions, be defined as a keynote of being aware of the current moment in order to decrease stress and increase *Emotional regulation* (Matko et al. 2021).

## 4. Physical Relaxation and Well-being:

Many participants felt relaxed physically during and after chanting. The relaxation response that was a result of this theme is that tension relaxed out of the shoulders, neck, and chest. A couple of participants mentioned that chanting enabled them to relax after they had a long day of work, they felt rejuvenated both physically and mentally. These results are in agreement with the relaxation response theory that chanting practice decreases physiological stress and promotes relaxed state.

#### 5. Spiritual Fulfilment and Inner Peace:

Another recurring theme was acquired through chanting a sense of inner peace and spiritual fulfilment that participants obtained from it. Alongside being an instrument for mitigating stress and strengthening mental health, for numerous participants it was also a spiritual apply that introduced that means and a way of connecting with something bigger themselves. Another theme presented that *Mantra* chanting plays a dual role as both a spiritual and psychological practice, and participant responses indicate that the spiritual component of chanting supported their wellness (Malviya et al. 2022).

# **Summary of Key Themes**

Therefore, the result of the thematic analysis shows that the effect of *Mantra* chanting on mental health and well-being is multifaceted. Some key themes are the reduction of stress and control of emotions, improved cognitive function, greater mindfulness and awareness of present moment, reduction of physical tension and stress and spiritual development. In this thesis, the findings indicate that *Mantra* chanting can be used as an effective means of achieving psychological and bodily health, decreased arousal, balance in feelings, resilience of thought faculty, and peace of spirituality.

#### 5. Discussion

#### 5.1 Introduction

The second section of this chapter presents key findings from the study, which were based in the thematic analysis of interview data, whereby the impact of *Mantra* chanting on mental health and emotional wellbeing were considered. Several important findings were found about how the *Mantra* chanting reduces stress and increase *Emotional regulation*, cognitive function, mindfulness, and overall, well-being. Findings from this discussion will be situated in the broader literature, by identifying how the themes naturally arose and relating my themes to various psychological theories of cognition. Implications for practice will be outlined to show how *Mantra* chanting may be used as a complementary tool for improving mental health. Finally, it will suggest potential avenues of future research in this area.

When it comes to *Mantra* chanting, this practice has been going on for a long time in many spiritual and cultural traditions and its roots go back to very old practices in Hinduism, Buddhism and Jainism. Initially

perceived as a primarily spiritual or religious practice, it is in recent years that the possibility of the practice as a psychological intervention to enhance mental health and emotional well-being has been the focus of research. This study was focused on a psychologic, emotional and cognitive analysis of impact of *Mantra* chanting on cognition resilience (cognition resistance to stress), stress relief, and *Emotional regulation*. This study's findings indicate that *Mantra* chanting can produce great benefits to those looking to enhance their mental well-being. Participants had lower anxiety, better emotional control, were more able to focus on their thoughts and were more mindful. Furthermore, the participants mentioned that the practice gives a spiritual fulfilment and inner peace in them, which shows that *Mantra* chanting impacts beyond the mind and also on the spiritual health (Malviya et al. 2022). Thematic analysis of the findings will be discussed in this chapter, and implications of these results will be interpreted and how *Mantra* chanting can be incorporated in mental health practices will also be explained.

#### 5.2 Thematic Analysis

The five key themes from data obtained in the thematic analysis were stress reduction and *Emotional regulation*, improvement of cognitive function and focus, increase of mindfulness and present moment awareness, physical relaxation and spiritual fulfilment. In these themes, you will have a clear view of what an effect of *Mantra* chanting is upon the mental health and emotional well-being. In this section, the themes will be discussed in relation to existing psychological literature so as to reveal the connections between the experiences of the participants and established theories.

## Stress Reduction and Emotional regulation

Finally, the results show one of the most powerful themes in the results we have received on *Mantra* chanting which are the impact of *Mantra* chanting in reducing stress and *Emotional regulation*. While chanting helped people reduce their anxiety and stress, many reported that they were able to get control over their emotions in a difficult situation. This is in line with the existing research on mindfulness and meditation practice, which has been found to be useful in reducing the physiological and psychological impacts of stress (Lam et al. 2023).

Well documented is stress reduction, improvement of *Emotional regulation* of mindfulness-based interventions (MBI) such as Mindfulness-Based Stress Reduction (MBSR) (Heidari, 2022). Like other mindfulness practices, *Mantra* chanting requires focusing attention on the repetition of a sound or word, thus helping to centre the mind and have lesser negative thoughts and emotions influence the mind. *Mantra* chanting can elicit a physical state of relaxation and thereby, is able to activate the parasympathetic nervous system that counteracts the stress response induced by the sympathetic nervous system (Saini & Sorout, 2023). This process enables the participants to better manage their stress and gain better emotional control. In this study, the participants' reports of decreased anxiety and enhanced emotional stability indicate that *Mantra* chanting can function as a means of *Emotional regulation* that is in line with findings of the previously conducted studies on the benefits of *Mantra-based practices* for the management of emotional distress (Keating, 2021).

## **Improvement in Cognitive Function and Focus**

Along with the improvements in physical movement, another major theme was the betterment of one in their cognitive and focus abilities. The participants reported ... concentration, mental clarity and *Cognitive resilience*. In line with studies that suggests that the mindfulness-based activities like, Mantra chanting may enhance the cognitive faculties especially the boost in attention and memory (Patel, 2019). Mantra chanting or training of the mind to focus on one object, sound or thought provides more control on attention, which is essential for cognitive function and mental adaptability (Malaktaris et al., 2022).

Most also reported that chanting helps them remove mental clutter in such a way that they can more easily

focus on tasks and during work enhance their productivity. Hence, Mantra chanting might also improve the Cognitive resilience, the capacity to perform and adapt under conditions of stress (Ahuja & Rawat, 2020). Cognitive resilience benefits are a big help in modern life we are often struggling with cognitive overload and distractions. This study finding corresponds to cognitive behavioural theories that consider attentional control in the management of stress and enhancing cognitive performance (Harne et al. 2019).

#### **Increased Mindfulness and Present-Moment Awareness**

Also, there were results on the theme of mindfulness or present moment awareness. In terms of modifying the structure of the given sentence, *Mantra* chanting helped many participants report that, through this practice, their ability to stay present and engage fully in the present moment improved significantly. Mindfulness based interventions are based on practice of this theme, being aware in the present time without judgement (Alvarez-Perez et al. 2022). Participants were able to disassociate themselves from the steady stream of thoughts and distractions by simply focusing on the repetitive sound of the *Mantra*, thus increasing their capability for consciousness of the self along with the present.

It has been demonstrated that mindfulness leads to numerous psychological benefits such as, improved *Emotional regulation*, decreased stress and increased well-being (Gupta et al. 2021). This is supported by the present study, as the participants noted that chanting contributed to their increased mindfulness, which therefore resulted in a better and more balanced emotional state, and better cognitive function. Moreover, the ability to be present in moment also provided the participants with ability to control emotions and reaction to stressors leading to overall positive psychological well-being.

# **Physical Relaxation**

Another important finding of the data is that the theme of physical relaxation. Several participants reported that they were physically relaxed whilst and after chanting. Often this was accompanied by a reduction in the muscle tension, particularly in the shoulders and neck. In accordance with the relaxation response theory, which claims that chanting relieves stress response, and that physical well-being may potentially be achieved (Ameta et al. 2023), these physical effects are consistent.

Reduction of physical tension related with chanting manifests that not only doing *Mantra* chanting is helpful in good *Emotional regulation* and mental capacity but aids in physical aspects of stress also that is very helpful for holistic welfare. Chanting acts to activate the parasympathetic nervous system thereby eliciting a relaxation response that subsequently neutralizes effects of stress on the body, including raised heart rate and muscle tension.

#### **Spiritual Fulfilment and Inner Peace**

The final key theme identified was through the process of chanting *Mantra*, the participant experienced spiritual fulfilment and the inner peace that comes from belief. In spite of the fact that a majority participants who took part in *Mantra* chanting were initially drawn to the practice for its mental and emotional benefits, they also verbalized that they experienced a profound level of spiritual connection and peace. This supports the notion that *Mantra* chanting has been shown to make people feel more fulfilled spiritually and this helps one lead a better life (Garg et al. 2024).

The chanting is a form of spiritual expression and restores a person's connection to a sense of purpose and meaning in the world through chanting. Many participants agreed that spiritual aspects of chanting were quite important because chanting helped them develop peace within, extending beyond the mental and physical benefits the participants experienced in the course of chanting. What this finding offers suggests that *Mantra* chanting can be both a *Mental health intervention* and a spiritual practice that improves well-being on a number of levels.

## 5.3 Implications for Practice and Future Research

# **Implications for Practice**

This study has a number of important implications for mental health practice. *Mantra* chanting is a cost effective, simple and culturally embedded intervention to improve mental health. The perks of having this on board are stress reduction, *Emotional regulation*, better cognitive function and even brings in the mindfulness aspect against our day-to-day hustles.

Mantra chanting can be incorporated into any mental health professional practice, including the use of Mantra chanting, within cognitive behavioural therapy (CBT) or mindfulness-based therapies. To have a concrete example, the Mindfulness-Based Stress Reduction (MBSR) programs may choose to introduce Mantra chanting as a tool to help promote Emotional regulation and cognitive focus. Moreover, performing Mantra chanting can also be employed as personal tool for relief from stress, anxiety or imbalances in emotional consciousness of people. Its ease of practice and extensive accessibility make it an appealing method for people who wish to adopt a holistic and non-invasive way to mental health.

#### **Future Research**

Though derived from findings in this study, there are many areas that invite further examination of *Mantra* chanting's mental and emotional benefits. Future studies could investigate the long-term effect of *Mantra* chanting to mental health especially concerning maintained cognitive resiliency and emotional stability. The benefits of *Mantra* chanting could be evaluated over time in longitudinal studies, as well as studying how consistent the practice is linked to the mental health outcome in the long term.

Additionally, continuing research can investigate the neurobiological mechanisms of the *Mantra* chanting effects. While the benefits of relaxing and cognitive functions of *Mantra* chanting are well known, further studies with neuroimaging techniques, such as fMRI and EEG, can explain the specific brain regions most affected by chanting, as well as the link between brain activity resulting from chanting and *Emotional regulation* and cognitive functioning (Rastogi et al. 2020).

In addition, future research can be conducted on how *Mantra* chanting affects various cultures and demographics. Although this study was conducted with participants who prior exposure to *Mantra* chanting, it would be constructive to study the effects of chanting in a wide range of population, including those without exposure to it. It would help to ascertain whether *Mantra* chanting can be a universal *Mental health intervention* or if there are cultural differences that influence its efficacy.

## 5.4 Summary

To sum it up, these studies present credible proof of psychological, emotional, and cognitive benefits of *Mantra* chanting. The results show that *Mantra* chanting can enhance mental well-being by reducing stress and anxiety, strengthening *Emotional regulation*, boost concentrative powers and improve cognitive functionality, bring about mindfulness. Additionally, participants stated that they felt a great fulfilment of spirituality and inner peace from their practice, simultaneously invoking two faces of *Mantra* chanting: *Mental health intervention* and spiritual practice.

The implication for practice is that *Mantra* chanting can be utilized to be included within other *Mental health interventions* as being just that, a simple yet effective tool for improving well-being. Representations for future research include the long-term effects of *Mantra* chanting, the neurobiological mechanisms by which it occurs and whether it is generalizable to other population groups. These findings provide a basis for future exploration of the holistic and culturally right *Mental health intervention* of *Mantra* chanting.

#### 6. Conclusion

#### 6.1 Conclusion

To this effect, the objective of this study was to explore the psychological, emotional and cognitive beneficial effects of *Mantra* chanting from the perspective of culturally embedded intervention for mental

health. The research explored by means of qualitative interviews with 15 participants how *Mantra* chanting affects *Emotional regulation*, *Cognitive resilience*, stress management and wellbeing. The thematic analysis findings lead to significant understanding of how *Mantra* chanting is a holistic tool for improving mental health and deliver spiritual fulfilment and inner peace. The findings of the study are summarized in this chapter, some of the implications for mental health practice are discussed, the limitations of the research are noted, and possible future directions for research are described.

According to the findings of this study, there are a lot of benefits to *Mantra* chanting when it comes to mental health and emotional well-being. As a result, the participants claim that they became more emotionally balanced, less anxious and stressed, and had better cognitive focus and clarity after their practice of a *Mantra* chanting. Importantly one time enable chanting *Mantra* to the participant because one time they gave the spiritual peace and well-being etc. This is in line with past research on mindfulness-based intervention and using techniques to reduce stress, giving further indication that *Mantra* chanting can be a valuable asset in the tool set for mental health.

Chanting has been proven to be helpful to people who want to regulate the emotions especially in hard situations where they can pause, concentrate on what is happening at the moment and reduce the emotional intensity of negative experiences. In addition, participants regularly stated that *Mantra* chanting made them more capable of focusing on segmentation and practicing mindfulness. This means that *Mantra* chanting is not simply a way of stress relief, but it is a cognitive and emotional strengthening mechanism to enhance the *Cognitive resilience*.

Therefore, based on this finding, everyone can say that *Mantra* chanting considered as a simple but effective practice that also holds good potential to enhance the mental health. Because of its versatility and accessibility, it has the potential to be an effective intervention for people looking for means to have better control over emotions, decrease stress, and increase attention. This study emphasizes the benefits of culturally relevant, accessible interventions in mental health practices and allows first investigation into the use of *Mantra* chanting as a mental health tool.

#### 6.2 Summary of Key Findings

This study provides the key findings of different *Mantra* chanting on mental health and well-being. Participants highly reported that chanting significantly reduced their stress and anxiety levels, many of them explaining that chanting is a good way of managing their emotions and consequent *Emotional regulation*. Moreover, participants observed better cognitive function, and especially in the sense of being able to focus, stay on a task and retain mental clarity, proving that *Mantra* chanting promotes *Cognitive resilience*. Another important result was that participants became more mindful and present, that they became more in touch with their life, and their emotional life in particular. Moreover, by the practice of chanting, physical relaxation occurred, and people mentioned feeling that tension release in neck and shoulders, contributing further to stress reduction (Hulett et al. 2023). Finally, there were many participants who felt spiritual fulfilment and inner peace through the *Mantra* chanting, hence confirming its position as a spiritual practice as well as a *Mental health intervention*. Consequently, these findings reveal that *Mantra* chanting appears to provide a holistic strategy of improving both physical and psychological well-being.

## 6.3 Implications of the Study

The impacts of the findings of this study relate to mental health practice and intervention therapy. The results of this research suggest first that *Mantra* chanting can be introduced to mainstream mental health practices as a complementary resource in dealing with stress, *Emotional regulation* and *Cognitive resilience*. It corresponds with a developing interest for mindfulness-based interventions (MBIs) and also other contemplative practices that are used in therapeutic contexts.

The study suggests a positive result for its inclusions in therapy for mental health professionals, such as its culturally relevant practices. For those looking for such an alternative of a supplementary option to add to, or utilize instead of, traditional therapies, *Mantra* chanting is a simple and accessible yet cost effective tool. There is an opportunity to integrate *Mantra* chanting into therapeutic approaches so mental health professionals can provide clients with another means for mediating stress, focusing attention, honing emotional equilibrium (Henriksen et al. 2020).

Furthermore, chanting *Mantra*s is also spiritual in addition to its use as a method to therapeutic intervention for mental health. Interestingly, many participants had expressed that chanting really made them happy mentally, and they felt a deep sense of fulfilment and inner peace spiritually. *Mantra* chanting can also be a meaningful practice for clients who consider spirituality to be very important to a great sense of well-being. The *Mantra* chanting highlights the alternative ways of dealing with mental health, keeping the mind and soul as a whole.

#### 6.4 Limitations and Future Directions

While this study provides valuable insights into the benefits of *Mantra* chanting, there are several limitations that must be considered.

- 1. Sample Size and Demographics: While the sample size of 15 participants is sufficient for the qualitative nature of the study, we cannot generalize the findings. In addition to this, the sample consisted predominantly of people who were already practitioners of some form of Mantra chanting or meditation. So this impact may not be fully reflective of the experiences of people who are new to the practice or from different cultures.
- 2.Self-Reported Data: Second, the data for this study was self-reported by a large proportion of the participants which may has led to bias in their reporting. The interview format offered some leeway towards a more profound insight into the experiences of the participants regarding the positive experience of mantras chanting; however, despite the interviews providing useful qualitative data, non-verbal realities are subjective, and may not fully represent the perceived benefits and difficulties of chanting mantras.
- 3. **Short-Term Impact**: The first stage of the study focused primarily on the short- or immediate-term benefits of Mantra chanting. More long-term studies are needed to explore whether repetition of chanting will be beneficial, and whether extended periods of regular chanting may improve mental health outcomes.

These limitations aside, future studies should also include disabling these modifications. Over the long run, it was possible to study mantra chanting as a method for mitigating or even preventing(marker for mood) the negative trend(deterioration) of mental health in the future, this can be established via longitudinal studies for the long-term impact effect of Mantra on mental health. Additionally, Mantra chanting will be explored in experimental studies through neuroimaging or biometric data to ascertain the neurobiological pathways on bringing changes to the brain and body (Tseng, 2022).

In addition, future studies can explore the feasibility of translating the practice of chanting Mantra into an interventional therapy in various settings, such as; hospitals, clinics, or community health programs and examine whether it can be used as a part of a complete Mental health module. In order to contribute to the knowledge of the possibility of Mantra chanting being a tool to improve mental health it would be worthwhile to explore whether Mantra chanting is feasible in clinical practice and effective.

#### 6.5 Summary

In short, drawing evidence from different sources, it can be concluded that Mantra chanting is beneficial for psychological, emotional and cognitive faculties. They were able to achieve great results and

experiences in areas of emotional growth, stress release and management as well as cognitive development, mindfulness and spiritual fulfilment. In conclusion, according to the findings, Mantra Sound Healing can be effective as a Mental health intervention, contribute to modern therapeutic practices, and accessible.

The implications for the study can help us understand that Mantra chanting can act as a holistic tool for enhancing mental health of the individuals seeking culturally relevant and spiritually meaningful approaches of intervention. Further research should also explore the long-term effect of Mantra chanting, mechanisms for its neurobiology, and further potential uses of it in other populations.

Overall the study: the need of introducing practice of chanting Mantras in to blessed mental health practices as easy, inexpensive & culturally neutral psychological tool. This aligns with a growing amount of evidence that suggests how mindfulness and contemplative practices impose physical and psychological benefits as it relates to emotional resilience and mental health.7. References

- Ahuja, G., & Rawat, S. (2020). Mantra for Pandemic using Astral and Cosmic Energy through Soul Rendering Meditation. *Military Psychology Response to Post-Pandemic Reconstruction*, 379.
- Alvarez-Perez, Y., Rivero-Santana, A., Perestelo-Perez, L., Duarte-Diaz, A., Ramos-Garcia, V., Toledo-Chavarri, A., ... & Serrano-Aguilar, P. (2022). Effectiveness of mantra-based meditation on mental health: A systematic review and meta-analysis. *International journal of environmental research and public health*, 19(6), 3380.
- Ameta, D., Garg, A., Kumar, P., Behera, L., & Dutt, V. (2023, July). Evaluating the Effectiveness of Mantra Meditation in a 360 Virtual Reality Environment. In *Proceedings of the 16th International Conference on PErvasive Technologies Related to Assistive Environments* (pp. 766-772).
- Barber, C. F. (2020). No health without mental health?. British Journal of Mental Health Nursing, 9(2), 1-7.
- Bringmann, H. C., Bringmann, N., Jeitler, M., Brunnhuber, S., Michalsen, A., & Sedlmeier, P. (2021). Meditation-based lifestyle modification: development of an integrative mind-body program for mental health and human flourishing. *Complementary Medicine Research*, 28(3), 252-262.
- Bringmann, H. C., Sulz, A., Ritter, P., Brunnhuber, S., Bauer, M., & Mayer-Pelinski, R. (2021). Mantra meditation as adjunctive therapy in major depression: A randomized controlled trial. *Journal of Affective Disorders Reports*, 6, 100232.
- El-Salamony, A. A. W., & El-ayari, O. S. M. (2023). Effect of mantram repetition as mindfulness strategy on psychological wellbeing among nurses in psychiatric wards. *International Egyptian Journal of Nursing Sciences and Research*, 3(2), 204-220.
- Garg, A., Kumar, A., Garg, S., Behera, L., & Dutt, V. (2024, October). VR-based mantra meditation for Mental Wellness. In 2024 IEEE International Conference on Systems, Man, and Cybernetics (SMC) (pp. 5415-5421). IEEE.
- Gupta, R., Arora, R., & Grover, R. (2021). Effectiveness of mantra meditation as a neurophysiological phenomenon for stress management in undergraduate medical students. *National Journal of Physiology, Pharmacy and Pharmacology*, 11(6), 558-566.
- Harne, B. P., Bobade, Y., Dhekekar, R. S., & Hiwale, A. (2019, December). SVM classification of EEG signal to analyze the effect of OM Mantra meditation on the brain. In 2019 IEEE 16th India Council International Conference (INDICON) (pp. 1-4). IEEE.
- Harne, B. P., Tahseen, A. A., Hiwale, A. S., & Dhekekar, R. S. (2019). Survey on Om meditation: Its effects on the human body and Om meditation as a tool for stress management. *Psychological Thought*, *12*(1), 1-11.
- Heidari, S. N. (2022). Finding a New Mantra. New England Journal of Medicine, 387(11), 964-965.
- Henneghan, A. M., Becker, H., Phillips, C., & Kesler, S. (2021). Sustained effects of mantra meditation compared

Open Access

- to music listening on neurocognitive outcomes of breast cancer survivors: A brief report of a randomized control trial. *Journal of psychosomatic research*, 150, 110628.
- Henriksen, K., Schinke, R., Moesch, K., McCann, S., Parham, W. D., Larsen, C. H., & Terry, P. (2020). Consensus statement on improving the mental health of high performance athletes. *International journal of sport and exercise psychology*, 18(5), 553-560.
- Hulett, J. M., Corona, M., Hartman, B. M., & Bormann, J. E. (2023). A systematic review of interventional trials reporting relationships between silent mantram repetition and health in adults. *Complementary Therapies* in Clinical Practice, 50, 101709.
- Keating, F. (2021). Black men's conversations about mental health through photos. *Qualitative Social Work*, 20(3), 755-772.
- Kumar, V., Patidar, H., & Varma, R. (2019). Galvanic Skin Response (GSR) signals reduced from Gayatri Mantra fire oblations during Yagya. *Interdisciplinary Journal of Yagya Research*, 2(1), 01-11.
- Kundu, A., & Kumar, R. (2024). Scientific Evidence of Practicing Gayatri Mantra: A Review Analysis. *Indian Journal of YOGA Exercise & Sport Science and Physical Education*, 10-20.
- Lam, S. U., Xie, Q., & Goldberg, S. B. (2023). Situating meditation apps within the ecosystem of meditation practice: Population-based survey study. *JMIR Mental Health*, 10, e43565.
- Malaktaris, A., McLean, C. L., Mallavarapu, S., Herbert, M. S., Kelsven, S., Bormann, J. E., & Lang, A. J. (2022). Higher frequency of mantram repetition practice is associated with enhanced clinical benefits among United States Veterans with posttraumatic stress disorder. *European Journal of Psychotraumatology*, 13(1), 2078564.
- Malviya, S., Meredith, P., Zupan, B., & Kerley, L. (2022). Identifying alternative mental health interventions: A systematic review of randomized controlled trials of chanting and breathwork. *Journal of Spirituality in Mental Health*, 24(2), 191-233.
- Malviya, S., Zupan, B., & Meredith, P. (2022). Alternative interventions in clinical mental health settings: A survey of mental health professionals' perceptions. *Complementary Therapies in Clinical Practice*, 49, 101668.
- Malviya, S., Zupan, B., & Meredith, P. (2022). Evidence of religious/spiritual singing and movement in mental health: A systematic review. *Complementary Therapies in Clinical Practice*, 47, 101567.
- Mantra, I. B. N., Suparsa, I. N., & Handayani, N. D. (2023). Cultural and Wellness Tourism: The Potential of Yoga, Meditation and Self-Purification Ceremony. SOSHUM: Jurnal Sosial dan Humaniora, 13(2), 109-119.
- Matko, K., Sedlmeier, P., & Bringmann, H. C. (2021). Differential effects of ethical education, physical Hatha yoga, and mantra meditation on well-being and stress in healthy participants—An experimental single-case study. *Frontiers in Psychology*, 12, 672301.
- Mohanty, S. N., Satpathy, S., Chopra, R., & Mahato, S. (2024). Investigating the impact of Mahā Mantra chanting on anxiety and depression: An EEG Rhythm Analysis Approach. *Advances in Integrative Medicine*.
- Oman, D., Bormann, J. E., & Kane, J. J. (2022). Mantram repetition as a portable mindfulness practice: Applications during the COVID-19 pandemic. *Mindfulness*, 1-12.
- Patel, N. (2019). The mantra of 'do no harm'in international healthcare responses to refugee people. *An Uncertain Safety: Integrative Health Care for the 21st Century Refugees*, 155-183.
- Pundir, A., & Chauhan, A. (2023). Positive Effects of 'AUM' Chanting on Mental Health Well-Being. *Traditional Medicine*, 4(2), 1-8.
- Raghuwanshi, N., Keswani, J., Sharma, H., Tewani, G. R., & Nair, P. M. (2022). Mantra yoga as a probable measure in improving sleep and reaction time among commercial drivers: An exploratory pilot study. *Clinical Epidemiology and Global Health*, 16, 101081.

Rastogi, R., & Chaturvedi, D. K. (2023). Mantra and Homa Therapy: Computational analysis of different aspects to benefit mankind with healthcare 4.0 and industry. *International Journal of Applied Research on Public Health Management (IJARPHM)*, 8(1), 1-24.

- Rastogi, R., Saxena, M., Chaturvedi, D. K., Gupta, M., Jain, P., Jain, R., ... & Garg, P. (2022). Indian science of Yajna and Mantra to cure different diseases: an analysis amidst pandemic with a simulated approach. *Bioinformatics and medical applications: big data using deep learning algorithms*, 235-267.
- Rastogi, R., Saxena, M., Chaturvedi, D. K., Gupta, M., Rastogi, M., Srivatava, P., ... & Gupta, N. (2021). Computing Analysis of Yajna and Mantra Chanting as a Therapy: A Holistic Approach for All by Indian Continent amidst Pandemic Threats. *The Smart Cyber Ecosystem for Sustainable Development*, 287-305.
- Rastogi, R., Saxena, M., Chaturvedi, D. K., Gupta, M., Rastogi, M., Rustagi, D., ... & Kumar, P. (2020). AI-Based Analysis for Novel Covid-19 and Its Treatment Through Yajna and Mantra Science: An Indian Vedic Science to Cure Various Diseases. *International Journal of Reliable and Quality E-Healthcare* (*IJROEH*), 9(4), 36-71.
- Rastogi, R., Saxena, M., Chaturvedi, D. K., Maheshwari, M., Garg, P., Gupta, M., ... & Gupta, H. (2021). Yajna and mantra science on healthcare domain: a futuristic scientific approach with Indian scenario. Fog Computing for Healthcare 4.0 Environments: Technical, Societal, and Future Implications, 501-533.
- Rastogi, R., Saxena, M., Maheshwari, M., Garg, P., Gupta, M., Shrivastava, R., ... & Gupta, H. (2020). Yajna and mantra science bringing health and comfort to Indo-Asian public: a healthcare 4.0 approach and computational study. *Machine Learning with Health Care Perspective: Machine Learning and Healthcare*, 357-390.
- Saini, R., & Sorout, J. (2023). A Literature Review on Mantra Meditation. *Medical and Health Science Journal*, 7(01), 51-56.
- Sharma, N., & Soni, D. (2022). Effect of Gayatri Mantra on Health: A Narrative Review.
- Sharma, V. (2019). The effect of chanting Gayatri Mantra on anger expression and psycho-physiological state of the youth. *International Journal of Multidisciplinary Trends*, *I*(1), 06-09.
- Shukla, S. K. (2022). Seven research mantras: A short guide for researchers. *International Journal of Geosynthetics and Ground Engineering*, 8(6), 75.
- Singh, S., Gupta, K. V., Behera, L., & Bhushan, B. (2025). Elevated correlations in cardiac–neural dynamics: An impact of mantra meditation on stress alleviation. *Biomedical Signal Processing and Control*, 99, 106813.
- Tripathi, S., & Vishvakarma, S. (2024). Gayatri Mantra Meditation: A Promising Approach for Enhancing Psychological Capital and Alleviating Psychological Distress. *International Journal of Indian Psychology*, 12(2).
- Tripathi, S., Sharma, N., & Vishvakarma, S. (2024). Effects of Gayatri Mantra Meditation on Psychological Capital and Well-Being of Young Adults. *Journal of Yoga and Physiotherapy*, 11.
- Tseng, A. A. (2022). Chinese Buddhist Practice of Mantra-Dharani Chanting During Covid-19 Pandemic: Motivations, Activities, and Health Benefits. *Annals of Public Health & Epidemiology*, *I*(5), 1-11.
- Tseng, A. A. (2022). Scientific evidence of health benefits by practicing mantra meditation: Narrative review. *International Journal of Yoga*, 15(2), 89-95.
- Wittek, T., Truttmann, S., Zeiler, M., Philipp, J., Auer-Welsbach, E., Koubek, D., ... & Wagner, G. (2021). The Maudsley model of anorexia nervosa treatment for adolescents and young adults (MANTRa): a study protocol for a multi-center cohort study. *Journal of eating disorders*, 9, 1-12.