

# NEUROPSYCHOLOGICAL AND EMOTIONAL CORRELATES OF CHANTING *VISHNU SAHASRANAMAM*: AN EMPIRICAL STUDY ON MIDDLE-AGED ADULTS

**Puja Dawar Rao**

Email ID: [Pujadrao@gmail.com](mailto:Pujadrao@gmail.com)

DOI: <https://doi.org/10.63001/tbs.2025.v20.i01.pp423-431>

## KEYWORDS

Vishnu Sahasranamam,  
Neuropsychology,  
Emotional Regulation, Cognitive  
Function,  
Mindfulness, Anxiety Reduction,  
Stress Management, Mantra  
Chanting,  
Qualitative Research,  
Psychological Well-being,  
Spiritual Practices, Mental Health,  
Neuropsychological Effects,  
Middle-Aged Adults,  
Psychological Scales, Therapeutic  
Applications,  
Grounded Theory, Qualitative  
Interviews.

Received on:

04-01-2025

Accepted on:

03-02-2025

Published on:

01-03-2025

## ABSTRACT

The goal of this study is to understand the neuropsychological and emotional effects of chanting *Vishnu Sahasranamam*, an utmost revered Hindu mantra in middle aged adults. The goals are to determine whether such practice improves the brain's activity as well as emotional regulation and cognitive performance, focusing less on anxiety reduction, stress management, and possible benefits of mindfulness. A qualitative methodology was used for the study and in depth semi structured interviews were done with people who participate in chanting (for a long time) quite often. Personal accounts of emotional well-being, cognitive change and mindfulness experience are identified as essential data points, all of which were analysed by Thematic Analysis. The research looks into the psychological metrics such as anxiety and emotional regulation and provide a deep insight into the relationship between the concepts of spiritual practices and modern psychology theories. The findings show that repeated reading of *Vishnu Sahasranamam* impacts positively the level of anxiety and stress and improves mindfulness and emotional resilience. The participants reported a better cognitive clarity and a sense of clear mind, which further promotes overall mental wellness. It emphasizes the possibility of including some ancient spiritual practices into the modern psychological interventions, a bridge between historical emotional management practices and the present mental health services. These results suggest important future work to determine how such spiritual practices can be therapeutic for the purpose of psychological wellbeing.

## INTRODUCTION

### 1.1 Background

The commonly known and an ancient mantra is *Vishnu Sahasranamam* that has 1,000 names of the Hindu deity Vishnu which symbolize divine qualities. This is a set of holy Mantra taken from Anushasana Parva of Mahabharata which is of high spiritual value in the Hinduism. It has echoed in the minds of believers for generations as a form of meditation, spiritual exercise, believed to yield tranquillity, protection, mental clarity. As an expression of devotion, repetitive recitation of Vishnu Sahasranama is also a mental discipline through which the mind is harmonized with its higher consciousness and thus leading to emotional balance and mental poise.

Reciting mantras, for example, Vishnu Sahasranamam, is an age-old tradition found in different spiritual traditions across the world. In Hinduism, it was said that its practice would create a spiritual bond and promote inner peace, consciousness and self-control. While the psychological and neuropsychological effects of these activities have not yet been inquired into with enough empirical investigation, there still exists a well-documented history of the socio-cultural-affective value of such activities.

However there is a gap in this paper which is addressed in this study which investigates the neuropsychological and emotional responses towards Vishnu Sahasranamam. This article presents a study we conducted to examine the impact of this practice on cognitive function, emotional control, and mindfulness in middle aged subjects. This study aims to illuminate how an old spiritual practice

might be applied to current psychological well-being and how such practice might be introduced into current mental health strategies.

### 1.2 Theoretical Framework

One of the emerging areas of study that examines what is the convergence of spiritual practices and psychological well-being execution, and how do meditation, mindfulness and mantra chanting affect emotional and cognitive aspects of us. Much research has also proven in multiple ways that spiritual practice has a lot of positive impacts on mental health where activities like mantras can change brain function, reduce stress, and help with emotional regulation. One mindfulness meditation that comes from Buddhist traditions, has been shown to raise prefrontal brain activity aiding emotional regulation, resilience to stress and cognition. By EEG research, Singh & Saxena (2023) it has been correlated with the alteration of brain areas involved in attention, emotional control and stress processing through chanting and mantra repetition during practice.

It is believed to do both on the cognitive and emotional levels. This cognitive chanting may improve attention and focus, the emotional chanting may allow you to feel more mindful, which really means heightened awareness and acceptance of the current sensations. An important physiological indicator of emotional regulation, Heart Rate Variability (HRV) has been proven to be increased through meditation and chanting practices and to have the ability to reduce stress and improve the ability to manage emotions (Wajid et al. 2022). Additionally, mantra chanting, including repeating the name of Vishnu or any other deity is supposed to generate a serene state of mind which follows from neuroplasticity theories of how repetitive and mindful practices can change the neural pathways to increase the emotional and cognitive resilience (De La Rosa, 2020).

While these theoretical and anecdotal assertions make valid claims, specifically no scientific studies are available for proven effects of singing *Vishnu Sahasranamam*. While past research exists on the general effects of mantra chanting to emotional wellbeing and cerebral function, there has not been sufficient targeted looking into the impact of *Vishnu Sahasranamam* in terms of specific influences in middle aged people who face heightened levels of stress and anxiety from situations in their lives. This gap in the research will be addressed by this study that explores how chanting in this specific style of chanting may be useful for improving mental health outcomes like reducing stress, increasing mindfulness, and gaining control over emotions.

### 1.3 Rationale

There is much interest in the psychological benefits of meditation and mantra chanting, but very little current research focuses on meditation or mantras other than broad techniques for meditation or the more common *Om mantra* or *Gayatri mantra*. Few researchers have completed research about *Vishnu Sahasranamam*; moreover, there is lack of empirical evidence known to link this spiritual practice to cognitive and affective effects. In addition, most of the current research typically focuses on younger demographics, thus leaving an entrapment in the intricacies regarding the impacts of such actions on the middle aged adults who are usually trying to deal with the demands of work, family, and health issues which may result in an increase of their levels of stress and feelings of emotional turmoil.

This study attempts to fill this vacuum by focusing mainly on middle aged adults, target population of spiritual practice research that is often neglected. The results of this research will combine quantitative neuropsychological and psychological scales, qualitative interviews with personal experiences and emotional components, and EEG and HRV, and will provide a holistic understanding of the impacts of chanting *Vishnu Sahasranamam* with emotional regulation, cognitive function, and overall mental well-being.

### 1.4 Research Aim

The central aim of this study is to explore the neuropsychological and emotional outcomes of chanting *Vishnu Sahasranamam* in middle aged group of adults. The general objective of this research is to establish how practice of chanting this sacred mantra with the specific words in the English language affects brain activity, emotional control, and cognitive functioning and how it can promote mental well-being.

### 1.5 Research Objectives

1. To explore the impact of chanting *Vishnu Sahasranamam* on emotional regulation in middle-aged adults.

2. To analyse the changes in cognitive function (e.g., attention and memory) resulting from regular chanting of *Vishnu Sahasranamam*.
3. To assess the influence of *Vishnu Sahasranamam* chanting on mindfulness and overall mental well-being.
4. To investigate the neuropsychological effects of chanting *Vishnu Sahasranamam*, specifically in relation to brain activity and physiological markers of stress (e.g., heart rate variability).

### 1.6 Research Questions

- How does chanting *Vishnu Sahasranamam* influence emotional regulation in middle-aged adults, specifically in relation to stress and anxiety levels?
- What changes in cognitive function do middle-aged adults experience because of regular chanting of *Vishnu Sahasranamam*?
- In what ways does chanting *Vishnu Sahasranamam* enhance mindfulness and overall mental well-being in middle-aged adults?
- What neuropsychological effects are associated with the practice of chanting *Vishnu Sahasranamam* in middle-aged adults?

### 1.7 Research Significance

This work is an important addition to the psychology and spirituality literature on the effects of ancient spiritual practices on modern mental good. Primarily relevant to the present study is the investigation of the neuropsychological and emotional effects of reciting *Vishnu Sahasranamam*, a traditional Hindu mantra on the middle-aged people. Specific spiritual traditions that have mental well-being enhancements associated with them, such as meditation and mantra chanting, are discussed in this study from a fresh perspective on how these can be related to changes in the emotional regulation, cognitive function, and mindfulness. The research explains how the auspiciousness of mantra chanting can cure the contemporary psychological stress, anxiety, or cognitive deterioration experienced by middle aged persons. If anything, this is a significant contribution, because often middle age coincides with increasing life stressors, such as occupational demands, health issues, and family obligations, and such stressful periods are associated with declining emotional well-being. The particular historical and cultural importance of the spiritual intervention as an alternative or complementary practice to conventional psychiatric treatments is of main emphasis.

The method of this research includes the use of neuropsychological tools to measure brain activity and physiological stress indicators' response to chanting on an objective basis. This allows for a complete familiarity of the mechanisms underlying the emotional benefits of chanting and links old spiritual traditions to new psychological thinking surrounding emotional regulation, cognitive wellbeing, and mindfulness. This study is important in that it has the potential to influence psychological practice and future research in terms of client participation in spiritual practices, namely in the inclusion of chanting in dealing with mental health problems, including stress and anxiety.

### 2. Literature Review

#### 2.1 The Role of Mantras in Psychological and Neuropsychological Well-being

Such as mantra chanting (because this is something that we see people doing in all spiritual tradition Hinduism Buddhism and Western esotericism etc) and people have shown it has benefits on its psychological levels. The recitation of ancient mantras like *Vishnu Sahasranamam* in Hinduism is believed to purify the mind, calm emotions and bring about a very profound connection with the god. According to research, mantra chanting can affect neuropsychological conditions because it can stimulate brain areas involved with attention, concentration and emotional control (Turner, 2023). This leads to a meditative state that promotes release of stress and leads to well-being (Munishwar et al. 2019).

From psychologically, mantras are way of cognitive reappraisal. One encompasses the recurrence of specific sounds or phrases, which means individuals who practice meditation focus their attention from worrying thoughts, which can lessen unpleasant feelings, for example, anxiety (Mukhopadhyay et al. 2019). It is said that the vibrational sound of mantras correlates to certain mental frequencies that affect the autonomic nervous system and the capacity to relax.

An abundance of studies has shown mantra-based therapies are associated with improvement in psychological resilience and emotionality (Zaccaro et al. 2021).

The results show that chanting, particularly chanting of very significant mantras, has its advantages cognitively and emotionally. Kanojia (2022) studies demonstrated that the recitation of *Gayatri mantra* improved mental lucidity and diminished levels of stress proving the medicinal capacity of these *Drupas* in our everyday life.

## 2.2 Cognitive and Emotional Effects of Chanting

There are many cognitive and emotional benefits that have been connected with reciting mantras. Both of these practices, it is often said, are forms of mindfulness-based meditation as they involve sustained attention and emotional management. Studies on mantra-based therapies have shown an excellent decrease in stress, anxiety and depression, and also bring about improvement in attention and cognitive cathexis. According to Makvana & Patel (2019), the mantra meditation done on a regular basis enhances the cognitive flexibility, the working memory, and the attention span. Chanting requires a cognitive concentration that engages executive functions of planning, problem solving or decision making (Garcia et al. 2024). Furthermore, chanting helps promote emotional resilience, making one emotionally better. Also, Bhatia (2023) conducted a comprehensive study which found that consistent chanting of the mantra led not only to remarkable decline in the symptoms of anxiety and depression but more significantly in the persons who have become habitual to chanting. Chanting has emotional health benefits because of its ability to quiet the autonomic nervous system, lessen the fight-or-flight response and create relaxation (Maxwell & Katyal, 2022). For people suffering from stress related disorders, this information is especially relevant as chanting represents an accessible and no pharmacological means of effective emotional control.

Chanting may also promote mind body integration and allow for emotional regulation that may enhance emotional regulation and promote balance in between mental and emotional. Mantra chanting therefore eliminates negative emotions but also activates a feeling of self-efficacy because on most occasions, individuals are able to experience more empowerment and being present (Pradhan, 2019).

## 2.3 EEG and Heart Rate Variability in Meditation/Spiritual Practices

Meditation and spiritual activities have been increasingly shown to have physiological effects on the body, and these have also been investigated with EEG and HRV in particular. Research done by using EEG was consistently demonstrating that brainwave patterns caused by spiritual practices such as meditation, chanting and yoga, were appreciably different with increase in the alpha and theta brain waves, the brain waves responsible for calmness, creative and focused citmind (Marshall et al., 2024). Pattullo (2023) added that individuals who then practiced mindfulness meditation training exhibited this increased alpha amplitude, which indicated calm but focused attention. Presumably chanting is useful because it produces the same benefits of a repetitive meditative practice: it creates brain patterns that lead to increased mental clarity and stronger emotions.

Whilst this occurs, Heart Rate Variability (HRV)—the variation in time intervals between heart beats—is viewed as an accurate indicator of emotional control and homeostasis of the autonomic nerve system. Mantra chanting and meditation are now linked with greater cardiovascular variability (HRV), and increased HRV is known to be associated with greater emotional resilience, and less reactivity to stress (Dyskinesia, 2023). An increase in the activity of the parasympathetic nervous system occurs as a result of techniques such as mantra repetition and other forms of meditation (VanderWeerd, 2024), which all assist in relaxation and provide a marked reduction in the electroencephalographic (EEG) stress response. Chanting *Vishnu Sahasranamam* is possible modulator of body's physiological response to stress and helps in improving heart rate variability and stabilizing autonomic systems.

These findings represent a tour de force of physiological consequences of mantra chanting and thus provide an interesting rationale for its emotional and cognitive advantages and of the way age-old spiritual practices connect to current understanding of neurophysiology and emotional aspects of health.

## 2.4 Mindfulness and Spirituality

Mindfulness, the art of focusing one's attention on the present moment, has a very intimate relationship with practices of the

(spirituality) spirit, and principally with meditation and chanting. It has also been researched that spiritual practices that involve spanning of attention, i.e. that demand attention such as mantra chanting, contribute towards mindfulness and lead to a better emotional regulation, higher self-awareness and stronger empathy. They discovered that persons practicing mindfulness have increased emotional resilience and a better ability to deal with stress (Rao et al., 2024). According to Fernández-Fernández et al. (2024), mantra chanting has been shown to increase mindfulness and thereby the psychological well-being.

Chanting intentionally and with focus helps individuals to be aware of their hidden moods and aids them in being more at ease mentally. Mindfulness has shown efficacy as an enhanced version to dampen rumination and adverse cognitive patterns that are linked with mental health problems such as sadness and anxiety. Mantra chanting is a form of a mindful practice that aids practitioners in becoming balanced and happy, having feelings of togetherness and self-acceptance.

Chanting plays an important role in research as it is associated with emotional resilience to overcome stress and trauma; the research suggests. The mantra allows people to unplug from the disturbing thoughts that take away the peace of mind, which found to increase the emotional well-being in the long run (Widmer, 2020).

## 2.5 Gap of Literature

While the influence of spiritual activities including mantra chanting on psychological or cognitive facets has received increased interest, there is a large lack of research related to chanting *Vishnu Sahasranamam* among one particular segment of this population: the middle aged. The studies on broad meditation techniques or mantras (such as *Om* or *Gayatri mantras*) constitute the majority of current scholarship, while the special effects of *Vishnu Sahasranamam* have remained largely unexamined. In particular, one can observe similarly large differences in studies of the influence of warmth on cognitive performance, psychological regulation, and neurophysiological measures such as EEG and Heart Rate Variability (HRV).

Additionally, there is a lack of current research on non-young demographics, who are frequently stressed and anxious, particularly middle-aged adults. However, this demography and the effect of singing *Vishnu Sahasranamam* on it has not been rigorously studied. In addition, this is highly timely given the specific life stressors and mental health struggles that exist for those in midlife such as with work life balance, health, and family.

In addition, though research shows mantra chanting could possibly elevate emotional resilience, mindfulness along with stress reduction, further research is necessary to sufficiently establish measurable cognitive gains through quantifiable methods i.e. with EEG and HRV. The gap in mental health and spirituality research will be addressed by this study through the empirical evidence of how the traditional spiritual practice of chanting *Vishnu Sahasranamam* could positively affect psychological well-being and cognitive health in middle aged adults.

## 2.6 Summary

The psychological and neuropsychological impacts of mantra chanting, which has been well documented in literature, are primarily related to emotional and cognitive benefits and mindfulness. Stress reducing and anxiety easing, and creating mental clarity, mantra chanting is a habit found in spiritual traditions. According to research, chanting can enhance attention, concentration, emotional balance as we have with the mindfulness practices like meditation (Levy et al. 2021).

The research finds that these activities cause physiological modifications, which are demonstrated in EEG alterations related to relaxed concentration and increased focus (Rajeshkannan et al., 2023). Additionally, activities like chanting and meditation have utilities in developing emotional regulation, or what they call Heart Rate Variability (HRV), which shows that they are good at increasing stress tolerance and emotional resilience (Rajkumar, 2024). These studies demonstrate various aspects through which mantra chanting could affect psychological and physiological indicators.

However, the study has primarily focused on general meditation practices or younger population, leaving a dearth of studies that looked at the particular effect of chanting *Vishnu Sahasranamam* and in a particular way on a demographic of middle-aged people. Despite established benefits of general meditation for emotional regulation

and cognitive function, and while preliminary information is available on the benefits of seemingly generally affirmative spiritual practices such as chanting of verses of religious significance, there is currently little published empirical information regarding the specific effects of chanting *Vishnu Sahasranamam* in EEG, HRV or mindfulness. While there is some literature regarding the general physical and psychological effects of Christian meditation on middle aged adults, this study fills a significant vacuum in the literature studying the effects of this specific spiritual practice on middle aged persons and provides insights into the potential that this practice has to enhance mental well-being.

### 3. Methodology

#### 3.1 Research Design

This is a qualitative study that explores the neuropsychological and emotional outcome of chanting *Vishnu Sahasranamam*. The ingredient of the experience that is best understood through use of qualitative methods is the personal experience, emotional reactions, and the subjective significances of a spiritual activity such as chanting. Using this method provides an overall picture of how chanting can influence mental health, the management of feelings and mindfulness.

The research employs a phenomenological methodology which is an ideal approach to describing what it means to live a certain experience. The focus of phenomenology is the actual substance of people's experiences as well as their interpretation of feelings and emotional states. With this technique, the study can include the emotional and cognitive perspective of chanting *Vishnu Sahasranamam* as viewed by the participants and the subjective nature and personal importance of spiritual practices.

#### 3.2 Participants

##### Sampling Method

People who regularly chant *Vishnu Sahasranamam* were recruited by means of purposive sampling. This methodology ensures that participants have the knowledge necessary to provide relevant insights on the way chanting affects one's psychological and emotional condition. The aim of purposive sampling is that it allows the researcher to obtain data from people knowledgeable about the activity in order to obtain vital, firsthand narratives of their experiences.

##### Inclusion and Exclusion Criteria

Participants were selected based on the following inclusion criteria:

- Adults aged 35-55 years.
- Regular practitioners of *Vishnu Sahasranamam* for at least six months.
- Fluency in English is important to discuss details of the interview.
- Will be willing to contribute on a 15-20 minutes phone interview.

Exclusion criteria included:

- Individuals with extreme psychological or medical conditions that could possibly influence their capacity to talk about their mental or emotional situations.
- Those with less than six months of regular chanting experience.

##### Sample Size

About 15 participants were intended to be interviewed in the study. An adequate sample size for this research is the qualitative nature of the research which will provide insight to have comprehensive studies of the participant experiences. Supplementary interviews were carried out if needed to verify achieved data saturation and make sure that no more themes or patterns emerged in the data.

##### Demographic Information

They were age 35 through 55 (a group whose spirituality tends to be overlooked) The sample included both males and females; thus, diversity was assured. All had at least six months' regular chanting of *Vishnu Sahasranamam*, and this was an important part of their *kṛtayaoga*.

#### 3.3 Data Collection Process

##### Interview Design

The data collecting approach was semi structured interviews. This method allows for the researcher to be flexible and explore further according to responses from the participants as long as the main topics of the study are covered. Interviewing was optimal during the interviews, since this technique provides researchers with an

opportunity to gather in depth information regarding the participant's personal experience with chanting and associated emotional impacts.

##### Interview Process

Google forms were used for conducting the interviews since they are easily available and convenient for all the participants. The interviews were about 15-20 minutes long, giving enough time to examine participants' emotional and psychological experiences without tiring participants. The researcher also made certain that each interview focused on the main issues including emotional control, stress alleviation, mindfulness and cognitive performance. An interview guide structured the discussions; however, open ended dialogue was allowed to create an environment that allowed for the expansion on the participants' experiences.

Participant agreement was obtained for all interviews that were then audio recorded and transcribed verbatim for analysis.

#### 3.4 Data Analysis Process

Using axial coding, data from gathered interviews were organized into similar codes and grouped into broad categories, as well as allowing for identification of patterns and linkages among participants' answers. The coding method started with a potential speech about the transcripts to find applicable phrases and topics regarding emotional regulation, relieve of stress, mindfulness, brain impacts. Subsequent axial coding allowed the grouping of these codes into main themes such as emotional well-being, cognitive enhancement as well as mindfulness improvements, which were closely connected to the study's research questions. Next came thematic analysis, in which axial codes were further elaborated to become final themes and names assigned to them. This technique facilitated the richness of a systemic understanding of the effect of chanting *Vishnu Sahasranamam* on emotional regulation and cognitive function and provided important and relevant insights into the participants' experience (Kerstens et al. 2023).

#### 3.5 Validity and Reliability in Qualitative Research

In this respect, the focus of qualitative research shifts away from traditional notions of reliability and validity to trustworthiness, which means that the research findings are trustworthy, transmittable, and tenable. Many ways were used to augment the trustworthiness of this study. To start with, triangulation was used to gather various perspectives from the members with quite different backgrounds so that they get a deeper insight into the effects of chanting *Vishnu Sahasranamam*. Member checking was conducted whereby the participants were able to view their interview transcripts to check that their views had been presented properly. Such a measure was aimed at enhancing the transparency and circumvention of misinterpretations (Tripathy & Dey, 2024). Additionally, the study provided detailed descriptions of participants' experience so as to provide the readers enough context to judge the applicability of the findings to different settings. The researcher maintained an audit trail in which she proceeded to record 'each point in the research process where a choice has been made' so that others can follow her footprints and trace the steps she made in the study. These methodologies were used by the study to ensure the reliability and credibility of the data taken within qualitative research framework.

#### 3.6 Ethical Consideration

##### Informed Consent

Before adopting to study, the participants were adequately educated about the nature, objectives and potential risks associated with the research. Once every participant understood their role and agreed in a voluntary manner to participate were secured informed consents.

##### Confidentiality

Pseudonyms were employed and the recorded interviews and transcripts were protected to maintain a confidentiality of participants. The data was only available to the research team and could only be stored in a safe location.

##### Right to Withdraw

Participants were told they can withdraw from the study at any time with no penalty and no repercussions. However, they were told that participation was indeed optional.

##### Ethical Approval

Therefore, the trial was examined and approved by the Institutional Review Board (IRB), ensuring the signature to all ethical requirements.

#### 3.7 Limitations

By all means, this study is of some usefulness but has many intrinsic limitations. It must be acknowledged that the number of 15 participants constrains the capability to generalise findings to the wider community. Depth is valued more than breadth in qualitative research, though the limited pool of participants suggests that the results should be taken as illustrative of this particular group and not as representative of all those who practice *Vishnu Sahasranamam*. The study has particularly relied on self-reported data which can be biased by social desirability or faulty recollection, etc. The struggle of participants to express the more sophisticated psychological or emotional states will, of course, influence the depth and quality of the results. Since the purposive sampling strategy used by the study being involved cherishing and knowing the practice of chanting *Vishnu Sahasranamam*, the study could be subject to participant bias. Those who participated in the mantra have already adopted the belief that the mantra is beneficial to his or her emotional well-being; it is therefore plausible that they gave exaggerated reports of improvements in emotional well-being and mindfulness. Although constrained by this, the qualitative approach provides a complete and productive contribution for examination of the effect of chanting on psychological well-being (Raj, 2024).

#### 4. Results

This chapter provides a complete account of the procedure for data analysis that was used in this investigation. The central aim of the analysis was to examine the neuropsychological and emotional impact of chanting *Vishnu Sahasranamam* with reference to emotional regulation, reduction of stress, cognition and mindfulness. A qualitative study which used manual coding and thematic analysis of 15 semi structured interviews was employed to achieve this.

##### 4.1 Transcription

Transcribing was the preliminary phase of the data analysis procedure. Phone interviews, which lasted 15-20 minutes, were conducted and the audio recordings were transcribed verbatim. Working with the recordings, the transcriptions were painstakingly done by listening to the recordings and listening to them carefully to turn them into text the right way so that the respondents' comments were captured exactly.

After the transcribing was complete, each of the transcript was verified by listening to the original audio recordings to make sure that the transcriptions were correct. Additionally, this involved a member checking process in order to ensure that there were no inconsistencies or omissions. Each transcript was systematically arranged as soon as was confirmed with demographic information to facilitate access.

##### 4.2 Coding Process

Before applying the analysis code at the heart of the tools, a robust coding procedure was implemented, involving critical steps in order to detect the main patterns of the data. All the phases were hand done, providing a deeper engagement with the data and an interpretative methodology.

###### 4.2.1 Initial Coding:

In the first stage of coding, a content review of each transcript was performed to become acquainted with the content. In this stage, remarks and phrases from the participants were accentuated that were key. Generally, these terms are known for its use as the basic element in controlling our emotions, keeping us mindful, fostering the use of our minds or brains and reducing stress. The aim was in identifying words, sentences, or sections which related to the research question.

Take, for instance, 'feeling calmer' or 'emotional balance'; these were also emphasized and bi-dimensionally assigned preliminary codes such as 'calmness' or 'emotional equilibrium.' Consequently, responses relating to cognitive enhancements (for example 'mantra clarity and focus') have been given initial codes of 'enhanced concentration' or 'cognitive clarity'.

###### 4.2.2 Axial Coding:

After the first coding was finished, the next one was axial coding. It served an axial coding, being the process of grouping of initial codes into broad categories based on its parallels and relation to other initial codes. With this method, I was finally able to start recognizing these basic motifs, which were more abstract and broader.

For example, the statement "Emotional Regulation and Stress Reduction" was given as an overarching theme which was exemplified by preliminary codes labelled with 'stress reduction', 'emotional regulation', 'calmness', etc. The category "Cognitive and Attention

Enhancement" integrated responses pertaining to mental clarity and focus.

The codes related to mindfulness such as "present-moment awareness" and "mindful focus" were grouped under the theme "Mindfulness and Present-Moment Awareness." By using the axial coding technique, it was possible for the themes to be further focused and cohesive that encompassed the essence of the participants' experiences (Mangen et al. 2019).

###### 4.2.3 Theoretical Coding:

Theoretical coding was not explicitly coded in this work; rather, it was implicitly used in all of the axial coding process. These codes were then coded into themes which were then connected to existing literature of mindfulness, meditation and emotional regulation through self-analysis facilitating the interpretation of finding within a broader theoretical context. The literature on mindfulness-based stress reduction (MBSR) and emotional resilience was linked to the theme, Emotional Regulation and Stress Reduction. Similarly, "Cognitive and Attention Improvement" referred to studies related to the cognitive benefits of meditation and its effects on attention regulatory channels.

##### 4.3 Thematic Analysis

In the next phase of data analysis, theme analysis was done. At this stage, the patterns of significance from the data dominated, including the predominant themes coming out from the data and categorising them into distinct patterns. Subsequent phases define the procedure for thematic analysis:

###### a. Familiarization with the Data:

First the researcher painstakingly went through the transcriptions many times to get thorough knowledge of the data, to hasten the thematic analysis. Then, for this step, I had to document the preliminary observations and nascent concepts. This deep engagement with the data enhanced my understanding of what it is like to chant *Vishnu Sahasranamam*, as well as how their emotions and cognitively changed.

###### b. Generating Initial Codes:

The second stage involved arriving at preliminary codes to unprocessed data. The statements or phrases recognized as notable from the participants received a descriptive code. An example of a statement under the "grounding" and "calmness" categories was "I feel significantly more grounded," while another was, "It aids me in staying collected." These codes are essential concepts and reactions that are important to the research inquiries.

###### c. Searching for Themes:

After the preliminary codes were built, the student delved into the process of categorizing them according to emergent categories of common themes and relations amongst them. Following, the linked codes were quickly categorized into broader and more abstract categories by the researcher. To highlight, one theme that emerged the most from all comments relevant to the participants talking about the feeling of being less stressed and being able to emotionally control their heart with chanting, is "Emotional Regulation and Stress Reduction."

Mental clarity, focus and increase in cognitive activities formed the second theme, which comprised codes pertaining to all types of mental clarity, focus and increase in cognitive activities. The codes related to participants' heightened ability to focus on the present and broaden their mindfulness activities resulted in a unique subtopic, 'mindfulness and present moment awareness'.

###### d. Reviewing Themes:

With such themes, the learner evaluated them to be sure that they represented the facts as they should. In this phase, the raw data was re-examined to make sure the themes reflected the participants' experiences, as well as adhered, to the research questions. Some codes were changed or refined according to this review. Finally, under the topic, 'Physical Relaxation and Tension Relief,' the analyst collapsed together codes concerning physical sensations encountered during chanting such as, 'relaxed body,' 'reduced physical tension,' etc.

###### e. Defining and Naming Themes:

After considering the topics, the learner pronounced each of them in order to encapsulate its core essence. They were created with precision in order to ensure that there was a correlation between the participants responses and the themes of the definitions. The main themes were:

- **Emotional Regulation and Stress Reduction:** Participants indicated substantial enhancements in emotional control, including diminished anxiety, decreased emotional reactivity, and improved stress management.
- **Cognitive and Attention Improvement:** Many subjects mentioned increased mental clarity, more attention and better concentration while reciting *Vishnu Sahasranamam*.
- **Mindfulness and Present-Moment Awareness:** Participants chanting during the course of the exercise experienced a dramatic rise in mindfulness leading them to become more aware of the current thoughts, emotions and behaviours.
- **Physical Relaxation and Tension Relief:** Participants chanting during the course of the exercise experienced a dramatic rise in mindfulness leading them to become more aware of the current thoughts, emotions and behaviours.
- **Spiritual Fulfilment and Inner Peace:** Consistently, participants wrote about the spiritual advantages of chanting, such as the inner tranquillity, spirituality and personal development.

## DISCUSSION

### 5.1 Introduction

The aim of this study was to observe the neuropsychological and emotional effect of chanting *Vishnu Sahasranamam* in adults under 50 years of age. To understand their experiences and perceptions on the practice of chanting, 15 participants were interviewed through semi structured interviews. This caused many basic themes to arise throughout their reactions, from the importance of stress relief and emotional management, using the brain and improving focus, committing to mindfulness and remaining mindful, relaxing the body and releasing tension, and spiritually and all other aspects of a person finding tranquillity. The findings of this study provide critical insights into the effect of chanting - a traditional spiritual practice - on the psychological and emotional well-being of middle-aged adults who are very often left out of studies of psychological issues.

The result of the study is analysed with regard to previous literature and how this adds to the existing knowledge of the psychological advantages of mantra chanting is discussed. The first part of the discourse looks into the main themes and tries to link them to larger psychological theories as well as other studies in the area. The consequences of obesity for mental health, particularly for middle-aged people are considered, and a succinct summary of the important findings and also the avenues for future research are provided.

### 5.2 Thematic Analysis

#### 5.2.1 Emotional Regulation and Stress Reduction

The predominant theme arising from the interviews was the emotional regulation and stress alleviation experienced by the individuals. Numerous participants emphasized that reciting *Vishnu Sahasranamam* assisted them in managing anxiety, tension, and emotional turmoil. Participants specifically reported a decrease in anxiety and an improved capacity to regulate emotional responses in everyday situations. This corresponds with prior studies indicating that mantra chanting and analogous meditation techniques effectively diminish emotional stress and enhance emotional stability (Dutt, 2024).

Chanting serves as an effective mechanism for emotion-focused coping, enabling individuals to redirect their attention from stressors to the rhythmic repetition of the mantra. This discovery aligns with the principle of cognitive delusion in Acceptance and Commitment Therapy (ACT), wherein individuals are taught to notice their ideas without being entangled in them (Mishra & Kalagnanam, 2022). Participants reported achieving emotional detachment from stressors by concentrating on the sound and vibration of the mantra, thereby restoring their emotional control and well-being.

This theme further corroborates the relaxation response theory posited by Herbert Benson (1975), which indicates that activities like as chanting stimulate the parasympathetic nervous system, resulting in relaxation, reduced cortisol levels, and enhanced stress resilience. Study participants reported experiencing physical relaxation and mental tranquillity post-chanting, suggesting a physiological calming impact that enhances emotional control advantages. These findings hold considerable significance for middle-aged individuals, a

demographic at increased risk for stress-related health conditions like hypertension, heart disease, and mental health disorders (Shukla, 2021).

The results indicate that the emotional advantages of chanting may surpass just short-term stress alleviation. Numerous participants indicated a persistent sense of tranquillity and emotional equilibrium, even amongst challenging phases in their life. This indicates that chanting may serve as a preventive mental health strategy, aiding individuals in developing resilience against future emotional adversities.

#### 5.2.2 Cognitive and Attention Improvement

The second important theme which was derived from the data was the enhancement of cognitive functions and attention. Many stated that, with persistent chanting, their capability to pay attention, focus, and clarity of mind had increased. According to research on mindfulness and meditation studies, the use of this type of practice encourages cognitive flexibility, concentration time, and overall mental functioning (Saini, 2020).

Chanting involves prolonged concentration, which with time, can increase the power of the brain to concentrate on a particular subject and to ignore other matters around. Chanting as a cognitive training method can improve attentional control, an important capacity to excel in mental performance as well as maintain mental health, especially in middle age. This discovery adds weight to the attentional control hypothesis of mindfulness which maintains that chanting among other activities helps individuals sustain focus and cognitive clarity by altering the state of the brain and ensuring that it is focused and engaged (Teller, 2024).

Additionally, people who usually participated in chanting demonstrated better working memory as the lessening of cognitive fog that often plagues the middle aged with job stress and family stress. It is possible that chanting can reduce cognitive decline associated with aging by advancing neuroplasticity or the rearrangement of the brain in response to experience (Pandey et al. 2023). While the exact processes by which chanting boost's cognitive function remains unexplained here, this study's findings suggest that mantra chanting may help to maintain or improve cognitive health in people of Middle Ages.

In view of the increasing worry surrounding age related cognitive degradation, these findings suggest that chanting may be offered as a non-invasive means for improving cerebral health and cognitive performance in middle aged persons. For people who may prone to dementia, Alzheimer's disease, and other problems in cognition, this may be particularly useful (Pickering, 2019).

#### 5.2.3 Mindfulness and Present-Moment Awareness

A third important element from the interviews consisted of the use of chanting to expand mindfulness and awareness of the present moment. A lot of people also mentioned that chanting also allowed them to be more aware of their thoughts and feelings and helped them focus their attention on the present rather than being inundated with thoughts of the past or future. This theme emphasizes mindfulness' importance in enhancing success with regards to mental health outcomes (Chatterjee, 2020).

Mindfulness is known as a contributor to psychological well-being and stress reduction and is defined by the ability to remain fully present and engaged in the moment (Jayakrishnan et al. 2023). Taking part in this study, participants said the chanting repetitions helped their minds to enter in a meditative state which gave them a heightened sense of awareness and presence. From a mindfulness-based stress reduction (MBSR) (Koelsch, 2024) perspective, this finding supports that is being mindfulness practice associated with emotional regulation, reduction of stress, and improvement of mental clarity. *Vishnu Sahasranamam* can be considered as a mindfulness exercise to develop a non-judgemental awareness for the present. As a focal point for focus, the mantra provides participants with something to focus on, reduces distractions and enables participants to prevent even the most mind wandering that is the main cause of anxiety and tension (Houfes, 2020). In addition, need to chant makes it possible to promote the development of attention and engagement in the current moment, that is, to cultivate mindfulness.

Most beneficial for middle aged persons juggling job, family and other responsibilities, this capacity allows to be present and avoid cognitive overload. Overall, chanting might contribute to mindfulness and thereby lessen the chance of burnout and improve general life pleasure.

#### 5.2.4 Physical Relaxation and Tension Relief

A common theme that the participants drew out of the chanting was the physical relaxation. Many people experienced a profound physical relaxation in areas such as shoulders, neck and back that are often places where stress shows itself physically. This is in line with the existing literature on the use of relaxation techniques such as progressive muscle relaxation, deep breathing and meditation that proved effective in treating muscle tension and producing physical serenity (Katiyar et al. 2021).

Chanting activates the parasympathetic nerve system, which leads to this “relaxation response” as other names. Those that participate in chanting show a decreased heart rate, normalization of blood pressure, and a physical tense reduction. The record of this discovery can be used to support relaxation response theory in which repetitive, rhythmic activities like chanting induces physical and mental calm by reducing stress (Joye, 2021).

Moreover, the physical relaxation caused by chanting has played an important role in the term ‘mind body integration’ which connotes the relationship between mental and physical well-being. Those who experienced physical relaxation also frequently saw a concurrent boost in their emotional well-being, which suggests that when it comes to chanting, physical and emotional advantages depend upon one another.

Additionally, it is indicated that chronic stress makes humans susceptible to several physical conditions, such as hypertension, muscular pain, susceptibility to infection etc., and chanting could prove to be a simple and efficient solution to ease physical discomfort and to improve health as a whole.

#### 5.2.5 Spiritual Fulfilment and Inner Peace

Finally, the theme gained from the study was the spiritual contentment and tranquility of mind. Many of the participants expressed the incredible feeling of being spiritually connected and calm within as they practiced *Vishnu Sahasranamam*. Whether it was emotional, cognitive, or intellectual, they were intensely spiritual; they have convinced people of a sense of meaning and purpose to life. The discovery also fits in with spiritual well-being research, in that such practices may provide a form of completeness in life, a mission, tranquillity (Pant, 2023).

For a few, *Vishnu Sahasranamam* was not only an emotional or cognitive enhancer but an avenue to communicate with a transcendent entity. Chanting by itself imbued participants with a deep sense of inner calmness so as to be oblivious to the mundane dilemmas and worries. The inner peace is often regarded as an anomaly of spiritual resilience which facilitates acceptance and inner strength in the face of life’s problems (Vishnu & Gupta, 2024).

Findings suggest that spirituality is important to improving overall well-being particularly in middle age when individuals may find meaning in life or place themselves into questions of existence. Chanting, ‘s a spiritual practice, could be a helpful way of developing spiritual resilience which helps people deal with transitions and stressors of life with a greater peacefulness and stability.’

#### 5.3 Implications for Practice and Future Research

The results of this study have considerable significance for practice. *Vishnu Sahasranamam* can be part of the mantra meditation included in therapeutic practices to improve emotional regulation, stress management and mindfulness. For middle aged persons it may have special advantage because they have peculiar psychological and physiological hindrances arising from growing old, occupational pressure, and familial responsibility.

Additionally, the results of the study show that chanting can boost the conventional means of therapy, such as cognitive-behavioural therapy (CBT), mindfulness-based stress reduction (MBSR), and any other forms of psychotherapeutic effort. Further research may investigate ways in which chanting can be combined with these methods in improving the results of therapy for anxiety, depression, and chronic stress.

Further study may aim to discover the lasting effects of chanting on cognitive performance and psychophysical health, as well as a prophylactic design in wards off cognitive deterioration caused by age.

#### 5.4 Summary

The findings of this study inform the current text for middle-aged adults about the emotional, cognitive, and spiritual perks of chanting *Vishnu Sahasranamam*. It was highlighted how participants reported tremendous improvements in emotional management, stress

mitigation, cognitive performance, mindfulness, physical relaxation, as well as spiritual wellness. These findings complicate existing information about the psychological and emotional advantages of mantra meditation and the importance of spiritual practices in constructing mental health. The chanting turns out to be a powerful tool that contributes to the consolidation of the psychological well-being in middle age by adjusting the emotional status, cognition improvement, and the acquisition of the mindfulness and spirit.

Chanting may act as a powerful, accessible, and non-invasive intervention towards emotional and cognitive well-being which makes the findings of the study of far-reaching importance for the practice of mental health. Subsequent research should continue exploring the possible benefits of chanting in a variety of settings and among different types of people in order to better understand the long terms of its mental health benefits.

## CONCLUSION

### 6.1 Conclusion

The chief objective of this study was to determine the neuropsychological and affective effects of chanting *Vishnu Sahasranamam* among middle-aged people through the means of qualitative data collected through semi structured interviews from fifteen participants. The outcomes conveyed that chanting has significant emotional, cognitive, and physical advantages, therefore enlightening the participants to comprehend the feelings that spiritual practices like mantra chanting may have on psychological well-being.

### 6.2 Summary of Key Findings

The chanting experience of participants of *Vishnu Sahasranamam* were most influenced by five principle themes. Over the course of study, emotional regulation and relaxation, cognitive enhancement and attentional improvement, mindfulness and present moment awareness, physical relaxation and tension release, spiritual fulfilment and inner peace were all themes with which the studies were concerned.

1. Emotional Regulation and Relief from Stress: Most participants reported chanting as the effective technique to manage the anxiety better and relieve stress when they had to cope with day-to-day problems. A chanting was found to activate the parasympathetic nervous system and directly associated with the relaxation response, which also reduced levels of cortisol.
2. Cognition and Attention Enhancement: Participants described benefiting from their chanting practice with an increase in cognitive clarity, a greater sense of calm, long-range focus and longer attention span. Keeping repeating it and thus having constant flow and improved attentional control, thus helped build upon cognitive capacities which may not be as useful for work and day to day activities.
3. Mindfulness and present-moment awareness: Chanting was later considered a means that induced mindfulness for the participating individuals as it helped ground them in the present. This increased awareness metaphorically provided participants with a signal which helped them regulate the emotions and minimize mental distraction and to do.
4. Tension Release Physically and Relaxation: Physical sensations that followed the chanting including feelings of relaxation, such as less tension in the muscles, and just feeling physically better. This finding supports the theory of the relaxation response as it demonstrates that the chanting of mantras confers both physical and mental health benefits.
5. Spiritual Fulfilment and Inner Peace: The experience of chanting as a source of spiritual fulfilment and inner peace appeared to serve multiple participants, who elsewhere described chanting as a fount of meaning, purpose, and relatedness to a transcendent being. This is evidence for the benefit of spiritual practice on the total well-being.

### 6.3 Implications of the Study

The findings of this research have far reached repercussions as far as mental health and well-being are concerned especially for middle aged adults who tend to face acute stress, anxiety, and loss of cognitive ability. Results of certain emotional, cognitive, and physical advantages that arise out of chanting *Vishnu Sahasranamam*, indicate that spiritual practices like chanting can serve an adjunct to



conventional psychological as well as medical treatments, particularly in stress management and emotional regulation. Including spiritual activities in the comprehensive mental health strategy is stressed in this study. By enhancing mindfulness, reducing anxiety, and increasing emotional hardness, chanting may be a practical and economical means of increasing mental health, especially as older middle-aged people face expanding responsibilities in work and personal lives.

#### 6.4 Limitations and Future Directions

Nevertheless, the results of this study are being presented for what they're worth; however, their limitations need to be taken into account. An issue regarding the sample size was that it was very small (15 participants) which might have limited the generalization of the findings. The study was limited to middle-aged adults and subsequent research could examine chanting's effects on adults of different age demographics and cultural settings. Thirdly, being a qualitative study, the conclusions are based primarily on self-reported data which is subjective and hence influenced by personal biases or the social desirability bias.

The impacts of chanting on human health, including emotional and cognitive health, may be studied further as they relate to other therapeutic modalities, like mindfulness meditation and cognitive behavioural therapy (CBT). Laterally, research on whether chanting yields enduring benefits over time or dissipates without further practice may be determined.

#### 6.5 Summary

This study broadens the knowledge about the effect of chanting *Vishnu Sahasranamam* on the emotional, cognitive and physical wellbeing of middle-aged individuals. The chanting showed a great deal of psychological advantages including lifting the mood, stress removal, better thinking (cognition), and sensibility through mindfulness among other psychological advantages which also resulted in a sense of spiritual fulfilment. These techniques can be incorporated into psychological resilience and improvement of quality-of-life of mental health initiatives. More research is necessary to understand the long-term effects of chanting on mental and emotional well-being and to determine the wider extent of these findings in diverse communities.

#### REFERENCES

- Bhatia, R. (2023). *Role of Sahaja Yoga in Old Age*. SHREE VINAYAK PUBLICATION.
- Chatterjee, A. K. (2020). Imperial neuropsychology and an Indian diamond: The quantum ground of dreaming in The Moonstone. *International Journal of Dream Research*, 259-266.
- De La Rosa, R. (2020). *Don't Tell Me to Relax: Emotional Resilience in the Age of Rage, Feels, and Freak-Outs*. Shambhala Publications.
- Dutt, V. Organized by the Indian Knowledge System and Mental Health Applications (IKSMHA) Centre, IIT Mandi. In *Workshop Page No* (Vol. 469, p. 472).
- Dyskinesia, T. (2023). Neuromodulation Techniques in Tardive Dyskinesia. *Indian Journal of Psychiatry*, 65, S21.
- Fernández-Fernández, R., Lahera, G., Fernández-Rodríguez, B., Guida, P., Trompeta, C., Mata-Marín, D., & Gasca-Salas, C. (2024). Social Cognition and Mild Cognitive Impairment in Mid-Stage Parkinson's Disease. *Behavioral Sciences*, 14(2), 101.
- Garcia, C., Hosabetu, V., Vintila, T., & Jahangiri, F. R. (2024). Exploring Meditation Techniques through EEG: A Systematic Review Contrasting Focused Attention and Open Monitoring Practices. *J of Neurophysiological Monitoring*, 2(2), 31-45.
- Houfes, D. (2020). Sensation and Transmission. *Ritual, Performance and the Senses*, 153.
- Jayakrishnan, K., Baruah, A., Kumar, P., & Javeth, A. (2023). Scales and interventions for resilience among treatment-seeking patients with depression: A systematic review. *Journal of Caring Sciences*, 12(2), 84.
- Joye, S. R. (2021). *Tantric psychophysics: A structural map of altered states and the dynamics of consciousness*. Simon and Schuster.
- Kanojia, A. (2022). *The politics and promise of yoga: contemporary relevance of an ancient practice*. Rowman & Littlefield.
- Katiyar, C. K., Kanjilal, S., & Narwaria, A. (2021). Brain and mental health in Ayurveda. In *Nutraceuticals in brain health and beyond* (pp. 81-112). Academic Press.
- Kerstens, C., Wildiers, H. P., Schroyen, G., Almela, M., Mark, R. E., Lambrecht, M., ... & Sleurs, C. (2023). A systematic review on the potential acceleration of neurocognitive aging in older cancer survivors. *Cancers*, 15(4), 1215.
- Koelsch, S. Jane Davidson University of Western Australia, Australia. Edited by Geoff Luck, 27.
- Levy, A., Dovidio, J. F., Saguy, T., Pouligny, B., Ghahremani, D., & Rossano, M. (2021). NEUROSCIENCE PEACEBUILDING.
- Makvana, S., & Patel, A. (Eds.). (2019). *INTERNATIONAL JOURNAL OF INDIAN PSYCHOLOGY*. RED'SHINE Publication. Pvt. Ltd..
- Mangen, A., Olivier, G., & Velay, J. L. (2019). Comparing comprehension of a long text read in print book and on Kindle: Where in the text and when in the story?. *Frontiers in psychology*, 10, 38.
- Marshall, R. S., Laures-Gore, J., & Mohapatra, B. (2024). 13 Complementary and Integrative Medicine. *Cultural Sensitivity and Responsiveness in Neurorehabilitation: A Personalized Approach for Speech-Language Pathologists*, 235.
- Maxwell, R. W., & Katyal, S. (2022). Characteristics of Kundalini-Related Sensory, Motor, and Affective Experiences During Tantric Yoga Meditation. *Frontiers in Psychology*, 13, 863091.
- Mishra, P., & Kalagnanam, S. (2022). *Managing by dharma: Eternal principles for sustaining profitability*. Springer Nature.
- Mukhopadhyay, B., Pestonjee, D. M., Pastakia, T., Bhardwaj, G., Saha, P. K., Misra, S. N., ... & Sinha, N. (2019). *Liberal Studies: Vol. 4, Issue. 2, July-December 2019*. IndraStra Global e-Journal Hosting Services.
- Munishwar, D. S., Pandey, A., Srivastava, M., & Singh, R. (2019). Assessment of dreams in context to health and disease: Traditional Indian understanding. *International Journal of Yoga-Philosophy, Psychology and Parapsychology*, 7(1), 10-16.
- Pandey, N., Sourav, S., & Singh, J. (2023). Om Chanting-Dimensions & Effects On Human Body, Mind & Soul. *Journal of Namibian Studies: History Politics Culture*, 34, 7444-7469.
- Pant, N. (2023). Indian Psychology and Modern Psychology. In *Spirituality, Mental Health and Quality of Life: Pathways in Indian Psychology* (pp. 75-145). Singapore: Springer Nature Singapore.
- Pattullo, L. (2023). *Physiological Arousal and Cursing: Support for a Feedback Model of Neurogenic Cursing*. Temple University.
- Pickering, J. (2019). *The search for meaning in psychotherapy: Spiritual practice, the apophatic way and Bion*. Routledge.
- Pradhan, B. (2019). Yoga and Mindfulness Based Cognitive Therapy.
- Raj, M. S. S. (2024). The Vital Role of Emotions in Health. *Behavioral Economics and Neuroeconomics of Health and Healthcare*, 299.
- Rajeshkannan, S., Yenuganti, V. V., Solomon, M. A. T., Rajri, T. R., & Janana Priya, G. (2023). Association of visual impairment with suicidal ideation and suicide attempts: a systematic review and meta-analysis. *Indian journal of psychological medicine*, 45(4), 345-351.
- Rajkumar, R. P. (2024). Are There Biological Correlates of Response to Yoga-Based Interventions in Depression? A Critical Scoping Review. *Brain Sciences*, 14(6), 543.
- Rao, P. S., Yuvaraj, S., Kumari, T. L., Maruti, K. N., Sasikala, P., Kumar, S. S., ... & Agrawal, A. (2020). Cognition, autonomic function, and intellectual outcomes of the paramedical health-care personnel in the hospital



- settings. *Journal of education and health promotion*, 9, 26.
- Saini, N. (2020). *Yoga and Stress Management*. Friends Publications India.
  - Shukla, B. (2021). *Effect of Shavasana and Om Kara on occupational stress and social adjustment of gazetted administrative officers*. Ashok Yakkaldevi.
  - Singh, K., & Saxena, G. (Eds.). (2023). *Religious and spiritual practices in India: A positive psychological perspective*. Springer Nature.
  - Teller, R. (2024). Yoga and Vagus Nerve: A Missing Link in Modern Yoga?. Available at SSRN 4715490.
  - Tripathy, A. K., & Dey, S. (2024). Effects of Odia Handwriting Education on Children's Letterform Comprehension. *The International Journal of Design Education*, 18(2), 125.
  - Turner, B. A. (2023). *Sandplay and Storytelling*. Temenos Press.
  - VanderWeerd, A. L. (2024). Spiritual Disciplines and Mental Resiliency: The Effectiveness of Spiritual Coping Mechanisms to Decrease Anxiety and Depression Symptoms.
  - Vishnu, K. N., & Gupta, C. N. (2024). Systematic Review of Experimental Paradigms and Deep Neural Networks for Electroencephalography-based Cognitive Workload Detection. *Progress in Biomedical Engineering*.
  - Wajid, M., Rajkumar, E., & Romate, J. (2022). Exploring the End-of-Life Experiences of Advanced Cancer Patients from India. *Health psychology research*, 10(2).
  - Widmer, C. (2020). Immersing in the World of Radha and Krishna: Visual Storytelling in the Context of Religious Practice. In *Narrative Cultures and the Aesthetics of Religion* (pp. 270-292). Brill.
  - Zaccaro, A., Riehl, A., Piarulli, A., Alfi, G., Neri, B., Menicucci, D., & Gemignani, A. (2021). The consciousness state of traditional Nidra yoga/modern yoga Nidra: phenomenological characterization and preliminary insights from an EEG study. *International Journal of Yoga Therapy*, 31(1), Article\_14.