

Impact of Gayatri Sadhana Camp on Stress and Well-being Parameters: A Mixed-method Study

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ABSTRACT

Background: Meditation using mantras is widely practiced in India and the world. Among the ancient Vedic mantras, the Gayatri Mantra (GM) holds profound significance. Despite its importance, limited scientific studies explore its effects. However, the research on the comprehensive effect of GM sadhana, including its components as explained in the traditional text, has been underexplored. Therefore, this study explores the effect of GM-based practices in a camp on the stress and well-being indicators of individuals by employing a mixed-method study design.

Methodology: The study involved 32 participants (18 males, 14 females; mean age = 50.44 years) attending a residential camp of Gayatri Sadhana. Psychological assessments were conducted using the Scale of Positive and Negative Experience, Scale of General Well-Being, Peace of Mind Scale, and Perceived Stress Scale, at the beginning and end of the camp. In addition, qualitative data were collected through semi-structured interview schedules to understand the participant's experiences with the Gayatri Sadhana program. **Results:** Result showed a significant improvement in positive affect, general well-being, peace of mind, and a significant reduction in stress and negative affect among all participants ($P < 0.01$). The qualitative interview responses revealed mental health benefits across various domains. The findings from the standard questionnaire strongly correlated with the qualitative responses from the interview schedule. **Conclusion:** Gayatri Sadhana appears to possess the potential to alleviate stress and enhance the general well-being of individuals. This study sheds light on the benefits of this ancient mantra-based practice and suggests its relevance in promoting overall well-being.

KEYWORDS: Gayatri Mantra, peace of mind, stress, well-being

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INTRODUCTION

Meditation is one of the ancient techniques that has been practiced for thousands of years in many cultures and religions across the world (Sanchetee and Shreyas Pragma, 2020; Wang et al., 2019). The practice of meditation often involves attentional training (Zeidan et al., 2010) towards the development of deeper insight into the nature of mental processes, consciousness, identity, and reality (Walsh, 1983), leading to the achievement of inner awareness and relaxed state of mind. Due to the global increase in mental disorders (Steel et al., 2014), meditation practices have gained popularity

as complementary therapies for the management of mental health problems (Goyal et al., 2014; Galante et al., 2014; Hofmann et al., 2010). The practice of meditation includes a variety of techniques, but depending on their approaches, they have been classified into two main categories: (i) Concentrative meditation, which involves focusing the attention on a single object such as mantra

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or breath and (ii) Open-mindedness meditation, which involves awareness of the continuous passing flow of thoughts, emotions, and sensations without identifying oneself with them. Meditation like Zen, Vipassana, and Mindfulness are some of the examples of open mindedness meditation (Sanchetee and Shreyas Pragma, 2020; Davidson and Goleman, 1977).

Mantra meditation, a form of concentrative meditation, is a method of repeatedly chanting certain sounds known as mantras for developing inner peace and achieving higher spiritual awareness (Lynch et al., 2018; Parthasarathi, 2020). Mantra meditation has its roots in spiritual practices of many ancient traditions, including Hinduism, Buddhism, Jainism, and others (Lopez, 1995). The earliest mantras were composed in Vedic literature thousands of years ago. Among the traditional Indian Vedic mantras, one of the most popularly chanted mantras has been the Gayatri Mantra (GM) (Acharya, 2003). GM is one of the most significant hymns in the Vedas (Dudeja, 2017). GM, along with Yajna (a religious fire ritual performed with the chanting of mantras), has been considered to be one of the most beneficial practices for the well-being of the individual and the society from the Vedic period (Acharya, 2001; Dwivedi, 1917; Rastogi et al., 2021). The practice of GM has been an integral part of daily life among the people of the Indian subcontinent (Acharya, 2003). In Indian tradition, the ultimate goal of spiritual practice (*sadhana*) is to achieve the highest level of universal consciousness (*kaivalya*) (Vivekananda, 1915; Saraswati, 2008). Mantras have long been used for the attainment of spiritual goals (Pandya, 2010).

Earlier studies have found that mantra meditation has a moderately positive effect on mental health and stress reduction (Álvarez-Pérez et al., 2022; Lynch et al., 2018; Tseng, 2022). Specifically, GM chanting has been reported to improve the quality of life (Thrisna-Dewi et al., 2020), reduce stress (Sharma and Singh, 2014), reduce anxiety (Sudha, 2020; Ketut-Candrawati et al., 2018), and improvement in electroencephalogram (EEG) waves (Thomas and Rao, 2016). However, the previous studies have mainly focused on the single component of the GM chanting or listening. They did not include the other prescribed components of the GM Sadhana as described in the traditional literature (Acharya, 2003). It is argued here that the comprehensive effect of the GM Sadhana thus has remained underexplored. This study has tried to study the comprehensive effect of the GM Sadhana, along with its components as organized in a Gayatri Sadhana camp, on well-being parameters. Sadhana camps provide good opportunities for study on comprehensive GM Sadhana as they include all the components of sadhana in an organized manner.

Gayatri Sadhana and its components

The Gayatri Sadhana involves chanting the GM thrice a day (*trikaal sandhya*), i.e. in the morning, at noon, and in the evening. Observation of inner disciplines (*sanyams*) and regulated sadhana routines are strictly followed during Gayatri Sadhana camps. Comprehensive Gayatri Sadhana camp designed by Pandit Shri Ram Sharma Acharya includes: (a) *Sadhana* (personal spiritual practices), (b) *Swadhyaya* (self-study or reading spiritual texts), (c) *Sanyam* (self-restraints), and (d) *Sewa* (selfless services) (Acharya, 2003; Acharya, 2010).

Sadhana

The spiritual sadhana of Gayatri is done using the following processes.

- i. *Atma shodhan (Self-purification)* – It is a sanctification process performed with the intent of purifying the mind and body before the beginning of sadhana. It involves *pavitrikaran*, *achaman*, *shikha vandanam*, *pranayama*, and *nyasa*
- ii. *Dev poojan (Prayers)* – It is the process of prayer for invoking the Gayatri as a deity goddess and establishing a connection by worshipping
- iii. *Japa and Dhyana (Silent mantra recitation and concentration)* – This process involves the silent recitation of the GM along with the concentration on the mental image of the deity Gayatri or the rising sun. Its objective is to invite divinity in oneself and illuminate one's inner self
- iv. *Surya-Arghyadanam (Offerings to the Sun)* – After completion of *japa*, the water contained in the pot (*kalasha*) kept at the place of worship during mantra *japa* has to be offered to the sun with the intent of surrendering individual consciousness to the universal consciousness (*Virat Brahman*)
- v. *Gayatri yajna* – It is done with chanting of Gayatri mantra and offering herbal incensory materials in the holy fire of *yajna* as *aahuti*. It is performed for the universal peace and purification of the environment.

Swadhyaya (self-study)

Swadhyaya is a method of purifying and molding thoughts. It deals with the study of one's self (one's aspirations, thoughts, attitude, and conduct) in the light of elevated thoughts of enlightened personalities, yogis, or spiritual gurus through lectures, spiritual discourses, or reading their books. It prevents the mind from falling into a spiral of negative thoughts, and it leads to the righteous path (Sao et al., 2013).

Sanyam (self-restraints and self-discipline)

Acharya Shriram Sharma has described four types of *sanyams* (continence) to be observed during

Gayatri Sadhana for success, and they are: (i) *Samay sanyam* (use of time in a well-planned and systematic manner for spiritual progress) (ii) *Vichar sanyam* (restraining mind from useless wandering and channelizing it into constructive work or for progress in spiritual sadhana) (iii) *Arth sanyam* (thoughtful use of money, and not being spendthrifts) and (iv) *Indriya sanyam* (restrain over senses, especially taste, and lust, by having very simple *sattvic* food in the diet and by observing celibacy during sadhana). The practitioners following sanyam are prescribed to eat *sattvic* food during sadhana, which constitutes light, fresh, juicy, and easily digestible foods such as vegetables, fruits, whole grains, and other vegetarian food items which are said to promote good health and calmness in mind, essential for sadhana. (Dhanya et al., 2019; Bansal and Srivastava, 2022; Mukundananda, 2021).

Sewa (selfless service)

It literally means selfless service. Sewa is an essential component of Gayatri Sadhana, where one must voluntarily offer altruistic services for the welfare of others with compassion, cooperation, and dedication. Sewa has been described as practical spirituality by Mahatma Gandhi (Rao, 2011). This noble process of selflessness helps in the purification of the mind and emotions (*bhava shuddhi*) and leads to transcendental experiences (Johnstone et al., 2016).

Daily routine in Gayatri Sadhana camp

The day in the camp starts at 3:30 am in the morning and ends at 8.30 pm in the night. The daily routine during the Gayatri Sadhana camp is shown in Table 1.

METHODOLOGY

Study design and setting

This research employed a mixed-method study design consisting of two distinct phases. In the initial phase, quantitative data were collected by the use of standard psychological scales, followed by the collection of qualitative data through semi-structured interview schedules in the second phase. The study was carried out at the Gayatri ashram Sagwara, Rajasthan, India, during the period of an organized camp of Gayatri Sadhana from December 21, 2020 to December 29, 2020 at the center. The participants stayed full-time in the ashram during the 9-day Gayatri Sadhana camp.

Participants

A total of 32 participants (18 males and 14 females; age range 15–74 years; mean age = 50.44 years) participated voluntarily in this study. The sample size determination was based on the effect sizes calculated from a similar study conducted by Arya et al. (2017), where the effect sizes for well-being on the Flourishing Scale and the Scale of Positive and Negative Experience (SPANE) were found to be 0.61 and 0.81, respectively. Considering a median effect size of 0.60, an alpha level of 0.05, and a power of 90%, the estimated sample size for paired differences was determined to be 32 using G*power. The sample size in the present study meets the required sample size of 32.

Participants' demographic details, including their age, educational qualification, marital status, and occupations, are given in Table 2.

Data collection

Presadhana data were collected a day before the beginning of the camp and postsadhana data was

Table 1: Daily routine in Gayatri Sadhana camp

Timing	Activities in Sadhana camp
3.30 am	Wake up and take a bath (the day in the camp starts at 3.30 am)
4.15–5.45 am	Gayatri Mantra Meditation (first session) (group meditation in meditation hall)
6.00–7.30 am	Gayatri Yajna (performed by all participants for universal peace)
7.45–9.45 am	Yoga-asana class
10.00–11.00 am	Spiritual discourse (session 1) (discourse on the importance of Gayatri Sadhana in life)
11.00–1.00 pm	Lunch break and rest
1.00–2.00 pm	Gayatri Mantra Meditation (second session)
2.00–4.00 pm	Spiritual discourse (session 2)
4.00–4.30 pm	Evening meal
4.30–5.30 pm	Rest
5.30–6.30 pm	Gayatri Mantra Meditation (third session)
6.30–7.00 pm	Swadhyaya (study literature for spiritual growth and self-refinement)
7.00–8.00 pm	Sewa in the ashram premises (voluntarily cleaning the ashram, helping in the kitchen, preparing meditation hall for morning sadhana, etc.)
After 8.30 pm	Sleep

Lunch and evening meals consisted of pure vegetarian *sattvic* food consisting of fruits, juices, vegetables, and chapatis

Table 2: Demographic details of participants

Participant's characteristics	Number of participants (n=32)
Age range (years)	15–74
Mean age (years)	50.44
Gender	
Male	18
Female	14
Marital status	
Married	24
Unmarried	7
Widowed	1
Educational qualification	
Postgraduate	9
Graduate	15
Intermediate (10+2)	1
High school	6
Below high school	1
Occupation	
Government jobs	8
Homemaker	6
Retired	6
Social work	3
Business	5
Students	4

collected at the end of the 9-day camp. Participants were requested to fill the psychological scales. Data were collected from the participants using an online form consisting of a consent form, demographic details, and selected psychological scales. Apart from psychological scales, participants' subjective responses on their experiences in the sadhana camp were also collected by the semi-structured interview schedule at the end of the program. Approval for the conduction of the study was sought from the center. This study was a preliminary pilot exploratory study and a part of the broad study project titled "Psycho and neurophysiological study of GM meditation on well-being." The ethical clearance for the study project was obtained from the institute's ethics board (No.P021/P074). Informed consent was obtained from all the participants and the study was conducted in compliance with the ethical standards of Helsinki. The participation in the study was on a voluntary basis.

The standard scales used for data collection are described below.

Measures used

Scale of positive and negative experience

The SPANE scale measures positive feelings such as good, pleasant, happy, joyful, and contented, and negative feelings such as bad, unpleasant, sad, afraid, and angry with a total of 12 items on a Likert scale of 1–5 (from very rarely or never to very often or always) (Li et al., 2013). The scale assesses positive

feelings (SPANE-P), negative feelings (SPANE-N), and an overall balance effect (SPANE-B). The Cronbach's coefficients for SPANE-P ($\alpha = 0.80$) and for SPANE-N ($\alpha = 0.81$) were found to be acceptable in the present study and also in the previous study (Arya et al., 2017). This scale has been adapted (Mishra and Dixit, 2017) and validated in Indian population (Singh et al., 2016).

Scale of general well-being

The scale of general well-being developed by Longo et al., 2018, was used to measure general well-being through 14 common constructs as indicators of well-being, for example happiness, vitality, calmness, optimism, life purpose, self-worth, development, connection, etc., All 14 items were phrased positively and rated on a Likert scale from 1 (Not at all) to 5 (very true), indicating experiences in life overall. Cronbach alpha for this scale was 0.89 in this study. This scale has been previously used in the Indian population (Sahni et al., 2021).

Peace of Mind Scale

The Peace of Mind Scale (POMS) developed by Lee et al., 2013, was used to measure peace of mind through a single-factor model presented by POMS. The scale consists of a 5-item scale that measures affective well-being. The items reflect the experiences of internal peace and harmony. Cronbach's alpha value for this scale in this study was 0.88. This scale has been validated in the Indian population (Singh et al., 2016) and has been previously used in studies on Indian samples (Chandran and Unniraman, 2019; Sahni et al., 2021).

Perceived Stress Scale

The Perceived Stress Scale is a 10-item scale developed by Cohen et al. (1983). It is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. The Cronbach alpha for this scale is 0.79 in the present study. This scale has been previously used in Indian settings for the assessment of stress (Pangtey et al., 2020) and has been validated in the Indian sample (Jaiswal et al., 2021).

Semi-structured interview schedule

A semi-structured interview was conducted at the end of the program using a set of open-ended questions comprising three key inquiries: "What was the purpose of joining this program," "What was the effect of this program on your mental health," "Which activity did you like the most in this program?" The open-ended questions printed on the sheet were provided to all the participants and the participants had to respond to them in their writing on these sheets.

Data analysis

Data from the responses to the questionnaires at pre- and postsadhana were analyzed using paired *t*-tests on IBM SPSS Statistics software version 26, developed by IBM Corporation, (New York, United States). Before applying the *t*-test on the data of each scale, the Shapiro–Wilk test was performed to determine whether the variables followed a normal distribution, which was found to be the case ($P > 0.05$), showing the data are normally distributed. The effect size for the paired differences between the two means at baseline and after the intervention was calculated using Cohen's *d*, which was found to be above $d > 0.66$, as shown in Table 3.

RESULTS

Results from questionnaires

The result from the questionnaires is presented in Table 3.

Table 3 shows the pre- and postcomparison of well-being and stress-related measures. The paired *t*-test results showed that there was a significant increase in the scores of positive affect (SPANE-P) ($t = -3.448$, $P = 0.002$), SPANE-Balance ($t = -3.674$, $P = 0.001$), general well-being ($t = -4.336$, $P = 0.000$), and peace of mind ($t = -3.040$, $P = 0.005$), all $P < 0.05$. There was also a significant reduction in the negative affect (SPANE-N) ($t = 2.719$, $P = 0.011$) and perceived stress ($t = 4.463$, $P = 0.000$) from its baseline scores, all $P < 0.05$.

Qualitative results from interview schedule

The qualitative data received from the interview schedule were analyzed using the content analysis method, which determines the presence of certain words or themes within the given data. (Downe-Wamboldt, 1992; Krippendorff, 2018). An inductive approach was chosen in which themes were strongly linked to the data and not to predefined concepts. Data analysis was performed in the following steps: reading the responses of the participants, identifying the unique information, as well as the presence of recurring responses from

each question. Thereafter, writing down the initial codes. Codes were then sorted on the basis of similar content and aggregated to form themes and subthemes on the basis of the frequency of similar responses which are reported along with participant's quotations and participant's number (e.g., P1 or P2), as presented in Table 4.

The effect of Gayatri Sadhana camp on mental health from the participants qualitative responses is presented in Figure 1.

Correlation of qualitative data with psychological assessment scales

On analysis, it was observed that those participants who reported improvement in their peace of mind, sleep quality and reduction in anxiety and stress, also had an overall average reduction of stress score (-5.58), negative affect (-2.21), improvement in peace of mind score ($+3.06$), well-being score ($+7.72$), and positive affect ($+3.03$) on the psychological assessment scales. The findings derived from standard questionnaires correlates well with the qualitative responses. Therefore, it appears those who had improvement in their psychological well-being scores also had experienced an enhanced state of well-being after the camp.

DISCUSSION AND CONCLUSION

This study has found a significant improvement in

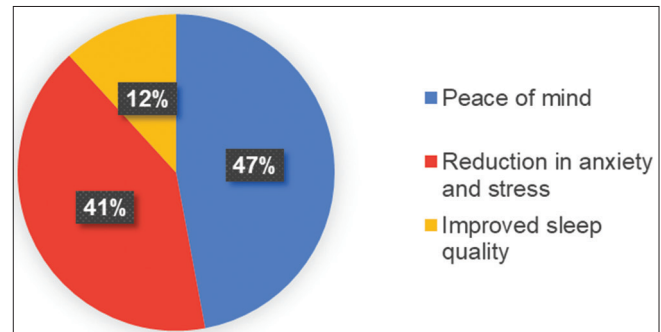


Figure 1: Showing the effect of the Gayatri Sadhana camp on mental health

Table 3: Paired *t*-test of pre- and postsadhana camp on well-being and stress-related measures

Scales and factor	Presadhana		Postsadhana		<i>n</i>	<i>t</i>	<i>P</i>	Cohen's <i>d</i>
	Mean	SD	Mean	SD				
SPANE-Positive	23.19	3.43	26.09	2.95	32	-3.448	0.002*	0.91
SPANE-Negative	14.13	3.31	11.66	4.14	32	2.719	0.011*	0.66
SPANE- Balance	9.06	5.30	14.44	6.41	32	-3.674	0.001*	0.91
SGWB	52.25	9.63	60.06	9.38	32	-4.336	0.000*	0.82
POM	18.22	4.41	21.03	4.04	32	-3.040	0.005*	0.66
PSS	16.63	4.74	10.97	7.07	32	4.463	0.000*	0.94

*Significant at $P < 0.05$. Cohen's *d*: Effect size. SPANE: Scale of positive and negative experiences, SGWB: Scale of general well-being, POM: Peace of Mind Scale, PSS: Perceived Stress Scale, SD: Standard deviation

Table 4: Description of themes and subthemes along with participant's quotations

Serial number	Themes	Sub-themes	Description along with participant's quotations
A	Motivation for joining the program	Mental and physical health benefits	Twenty-four out of 32 participants expressed their primary motivation for joining the program was to improve their physical and mental health. Few participants defined their goal as <i>"to gain the health benefits."</i> (P1) and to gain <i>"mental and physical purification"</i> (P3). One participant (P7) expressed obtaining <i>"Peace of mind"</i> as the main reason for enrolment
		Spiritual progress	Further, six participants stated spiritual progress as their primary motive for attending this sadhana program. One of the participants stated her motive for joining the camp as a desire to obtain <i>"peace of mind and maintaining a connection with the spiritual guru and the divine mother Gayatri"</i> (P21)
B	Mental health and well-being	Enhanced peace of mind	One of the questions asked was: What was the effect of this program on your mental health? to which 16 out of 32 participants reported experiencing enhanced peace of mind after the end of the sadhana camp. One of the participants stated this feeling by saying, <i>"I am feeling a sense of peace"</i> (P9). Another participant stated, <i>"there is peace in my mind"</i> (P31) On further analysis, it was found that all sixteen participants who reported enhancement in their peace of mind on interview questions also had an average reduction of stress (−3.86) and negative affect (−2.07), the average improvement in peace of mind score (+3.36), well-being score (+7.21) and positive affect (+3.29) on the standard psychological scales at the end of the camp
		Reduction in anxiety and stress	Fourteen out of 32 participants reported a reduction in either anxiety or stress, fear, anger, and worry. One of the participants stated such feelings after the sadhana camp by saying, <i>"A reduction in stress, anxiety, anger, insomnia, and fear has occurred in this camp."</i> (P9). Another participant expressed his feeling as <i>"felt a reduction in stress, worry, and restlessness"</i> (P16) All participants who reported experiencing a reduction in either of these distress (stress, anxiety, fear, anger, and worry) also had an average reduction of stress (−8.39) and negative affect (−3.69), average improvement in peace of mind score (+4.30), well-being score (+9.16) and positive affect (+3.69) on the standard scales at post camp
		Improved sleep quality	Four participants reported a decrease in insomnia and sleeplessness, accompanied by an improvement in the quality of their sleep. One of the participants expressed this experience by stating, <i>"I am experiencing good sleep"</i> (P5). Similarly, another participant reported a reduction in stress-related outcomes and insomnia by stating, <i>"A reduction in stress, anxiety, anger, insomnia, and fear has occurred in this camp"</i> (P9) On analysis, it was found that all participants who reported improved sleep quality also had an average reduction of stress (−3.5) and negative affect (−0.25). Furthermore, an average improvement in peace of mind score (+2.25), well-being score (+9.5), and positive affect (+5.0) on the standard scales
C	Wholesome experience of the sadhana program	Overall program satisfaction	All the participants had positive feedback about the activities in the program, but their preferences for liked activities varied among them. The majority of the participants, 18 out of 32, reported that they liked all the activities offered in the program, encompassing the Gayatri mantra meditation, yajna (a ritualistic fire ceremony), yoga, spiritual discourses, and evening prayer. One of the participants expressed his satisfaction by saying, <i>"All activities were very good"</i> (P13)
		Preference for specific activities	Thirteen out of 32 participants expressed a strong preference for the Gayatri mantra meditation, yajna, and yoga practices. One participant personally stated that she enjoyed morning <i>"Gayatri mantra meditation"</i> and <i>"performing yajna"</i> after waking up in the morning (P24). Another participant expressed his view by saying that <i>"morning mantra sadhana, yoga, and yajna felt very good."</i> (P7). Some participants (n=5) also expressed their preference for spiritual discourses. One participant explicitly stated that he <i>"enjoyed the cherishing moments of sadhana experiences and group discussions"</i> (P19)
		Desire for longer camp duration	One of the participants reported that such a type of sadhana camp should be run for a longer duration (P26)

mental well-being scores after systematically practicing the GM sadhana as per the traditional ritualistic method including all the components as prescribed by the ancient Indian scriptures and advocated by the great practitioners

of the GM. The study was conducted in a Gayatri Sadhana camp which was fully residential for 9 days, including all components of sadhana in an organized manner. The result showed a significant improvement in

peace of mind, general well-being, and positive affect, along with a significant reduction in perceived stress and negative affect. All the self-report measures indicated that the Gayatri Sadhana camp program may have been effective in improving the well-being of the individuals which may be potentially attributed to the impact of the sadhana practices during the camp.

The reason for the findings in this study may be attributed due to the practice of mantra meditation, which has been previously reported to bring about relaxation in the mind and body through parasympathetic dominance (Inbaraj et al., 2022). Another possible explanation could be attributed to the subtle energy produced by the chanting of the GM, which is said to activate the subtle glands and vital energy centers (chakras) of the body (Acharya, 2000). The activation of these subtle glands is said to produce a significant positive effect on the mind. Apart from it, the GM is a prayer for wisdom and good health, and its repeated chanting with devotion may bring changes in the psyche accordingly (Acharya, 2011). Besides mantra, the sattvic food served is also said to promote happiness and satisfaction in the mind (Mukundananda, 2021). Further, the practice of swadhyaya is also reported in purifying the mind and preventing it from falling into the clutches of negative thoughts (Sao et al., 2013). The practice of sanyam (self-restraints) prevents the mind from external disturbances and channelizes it toward spiritual progress (Acharya, 2000). The yoga-asana provides flexibility, mental balance, and strength (Wiese et al., 2019). All these components of the sadhana practiced comprehensively in the Gayatri Sadhana camp may have contributed to improving the mental well-being of the individuals.

Furthermore, in order to gain insight into the participants' experiences in the Gayatri Sadhana camp in qualitative terms, a semi-structured interview was conducted. In response to the open-ended questions of the semi-structured interview schedule, the majority of the participants reported their motive for joining this program was the improvement in their physical and mental health. Some participants mentioned the spiritual sadhana and spiritual progress as their main reasons.

The participants reported a remarkable improvement in their mental health domain, such as experiencing enhanced peace of mind, reduction in anxiety and stress, and improvement in their sleep quality. Apart from improvement in mental health, most of the participants liked all the activities of the program, and some participants expressed their desire that such a type of program should be organized for a longer duration. Their expression indicates that the participants felt that

they benefitted from this Gayatri Sadhana camp in the improvements of their mental well-being. Furthermore, it was observed that the participants who reported improvement in their peace of mind, sleep quality, and reduction in anxiety and stress, also had an average reduction of stress score, and negative affect, along with improvement in peace of mind, positive affect, and well-being scores on the standard scales. The subjective responses on interview schedules showed a strong correlation with the scores of the self-report measures.

The findings of the present study are similar to the findings of the previous study done by Arya et al., 2017. They found a significant improvement in well-being parameters following 5 days of Sahaj Marg meditation. Another study found improvement in mindfulness and well-being by meditation retreat compared to vacation (Blasche et al., 2021). Similarly, Vipassana meditation retreat also showed a significant decrease in depression and anxiety and an increase in the level of mindfulness (Cohen et al., 2017). Meditation and yoga practices were also found to be helpful in the significant reduction of stress during the COVID-19 pandemic (Sahni et al., 2021; Sharma et al., 2022) and beneficial for physical and mental health (Sharma, 2020). The results of the present study are largely consistent with the findings of the existing literature on meditation practices.

The findings of the present study suggest that Gayatri Sadhana possess the potential to alleviate stress and enhance the general well-being of individuals. This study sheds light on the benefits of this ancient mantra-based practice and suggests its relevance in promoting mental health and overall well-being. Further studies with suitable randomized controlled trials are needed to study this effect further.

The strength of the study lies in the employment of the mixed method for data collection, which helps in a deeper understanding of the phenomenon to answer the research question. Apart from strengths, there are several limitations that offer important directions for future research. First, there was a lack of a suitable matched control group to completely explain the effectiveness of Gayatri Sadhana camp. The second limitation was that there were no follow-up assessments to assess the long-lasting effects of this program, which could have brought better insight.

Future studies could be done by employment of the control group and large sample size, along with follow-up assessment to better understand the long-lasting effect associated with this program. Other studies could also be done by the use of some physiological parameters such as EEG, heart rate variability, changes in blood pressure,

and stress hormones, along with the psychological parameters, to draw a deep insight from the results in the future.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- Acharya, P. S. R. S. (2000). *Super Science of Gayatri* (3rd ed). Gayatri Tapobhumi Mathura: Yug Nirman Yojana Press.
- Acharya, P. S. R. S. (2001). *Integrated Science of Yagya*. Haridwar: Shantikunj. India: Uttarakhand.
- Acharya, P. S. R. S. (2010). *Four Pillars of Self Development*. Mathura: Yug Nirman Yojana Press.
- Acharya, P. S. R. S. (2011). *The Science of Mantra*. Gayatri Tapobhumi; Mathura: Yug Nirman Yojana Press.
- Acharya, P. S. R. S. (2003). *Gayatri Mahavigyan*. Yug Nirman Yojana Press, Gayatri Tapobhumi Mathura, India.
- Álvarez-Pérez, Y., Rivero-Santana, A., Perestelo-Pérez, L., Duarte-Díaz, A., Ramos-García, V., Toledo-Chávarri, 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. doi: 10.3390/ijerph19063380.
- Arya, N. K., Singh, K., & Malik, A. (2017). Impact of five days spiritual practice in Himalayan Ashram of Sahaj Marg on well-being related parameters and selected physiological indicators. *International Journal of Indian Psychology*, 4, 36-51.
- Bansal, A., & Srivastava, S. (2022). Concept of Yogic diet and mental health: A Literature Review on Scientific and Scriptural aspects. *Journal of Positive School Psychology*, 6 (6), 8364-8375.
- Blasche, G., deBloom, J., Chang, A., & Pichlhofer, O. (2021). Is a meditation retreat the better vacation? Effect of retreats and vacations on fatigue, emotional well-being, and acting with awareness. *PLoS One*, 16 (2), e0246038. doi: 10.1371/journal.pone.0246038.
- Chandran, K. M., & Unniraman, P. (2019). Influence of yoga in achieving peace of mind. *International Journal of Yoga, Physiotherapy and Physical Education*, 4 (3), 64-66.
- Cohen, J. N., Jensen, D., Stange, J. P., Neuburger, M., & Heimberg, R. G. (2017). The immediate and long-term effects of an intensive meditation retreat. *Mindfulness*, 8 (4), 1064-1077. doi: 10.1007/s12671-017-0682-5.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24 (4), 385-396. doi: 10.2307/2136404.
- Davidson, R. J., & Goleman, D. J. (1977). The role of attention in meditation and hypnosis: A psychobiological perspective on transformation of consciousness. *International Journal of Clinical and Experimental Hypnosis*, 25 (4), 291-308. doi: 10.1080/00207147708415986.
- Dhanya, S., Ramesh, N. V., & Mishra, A. (2019). Traditional methods of food habits & dietary preparations in Ayurveda – The Indian system of medicine. *Journal of Ethnic Foods*, 6 (1), 14. doi: 10.1186/s42779-019-0016-4.
- Downe-Wamboldt, B. (1992). Content analysis: Method, applications, and issues. *Health Care for Women International*, 13 (3), 313-321. doi: 10.1080/07399339209516006.
- Dudeja, J. P. (2017). Scientific analysis of mantra-based meditation and its beneficial effects: An overview. *International Journal of Advanced Scientific Technologies in Engineering and Management Sciences*, 3 (6), 21. doi: 10.22413/ijastems/2017/v3/i6/49101.
- Dwivedi, G. P. (1917). *The Manusmriti: Manavdharmashastra*. Lucknow, India: Newul Kishore Press.
- Galante, J., Galante, I., Bekkers, M. J., & Gallacher, J. (2014). Effect of kindness-based meditation on health and well-being: A systematic review and meta-analysis. *Journal of Consulting and Clinical Psychology*, 82 (6), 1101-1114. doi: 10.1037/a0037249.
- Goyal, M., Singh, S., Sibinga, E. M., Gould, N. F., Rowland-Seymour, A., Sharma, R.,... & Haythornthwaite, J. A. (2014). *Meditation programs for psychological stress and well-being: a systematic review and meta-analysis*. JAMA internal medicine, 174, 357-368.
- Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78 (2), 169-183. doi: 10.1037/a0018555.
- Inbaraj, G., Rao, R. M., Ram, A., Bayari, S. K., Belur, S., Prathyusha, P. V., Sathyaprabha, T. N., & Udupa, K. (2022). Immediate effects of OM chanting on heart rate variability measures compared between experienced and inexperienced yoga practitioners. *International Journal of Yoga*, 15 (1), 52-58. doi: 10.4103/ijoy.ijoy_141_21.
- Jaiswal, A. K., Meshram, S., Pandey, V., & Singh, A. (2021). Standardization and validation of Hindi version of Perceived Stress Scale in Indian sample. *Indian Journal of Health and WellBeing*, 12 (3), 386-390.
- Johnstone, B., Cohen, D., Konopacki, K., & Ghan, C. (2016). Selflessness as a foundation of spiritual transcendence: Perspectives from the neurosciences and religious studies. *International Journal for the Psychology of Religion*, 26 (4), 287-303. doi: 10.1080/10508619.2015.1118328.
- Ketut-Candrawati, S. A., Dwidiyanti, M., & Widayastuti, R. H. (2018). Effects of mindfulness with Gayatri mantra on decreasing anxiety in the elderly. *Holistic Nursing and Health Science*, 1 (1), 35. doi: 10.14710/hnhs. 1.1.2018.35-45.
- Krippendorff, K. (2018). *Content Analysis: An Introduction to Its Methodology*. Philadelphia, United States: Sage Publication.
- Lee, Y. C., Lin, Y. C., Huang, C., & Fredrickson, B. (2013). Peace of Mind Scale. (Database record). *APA PsycTests*. doi: 10.1037/t32371-000.
- Li, F., Bai, X., & Wang, Y. (2013). The Scale of positive and negative experience (SPANE): Psychometric properties and normative data in a Large Chinese sample. *PLoS One*, 8 (4), e61137. doi: 10.1371/journal.pone. 0061137.
- Longo, Y., Coyne, I., & Joseph, S. (2018). Development of the short version of the Scales of General Well-Being: The 14-item SGWB. *Personality and Individual Differences*, 124, 31-34. doi: 10.1016/j.paid. 2017.11.042.
- Lopez, Jr., D. S. (1995). *Religions of India in Practice: 12*. New Jersey, United States: Princeton University Press.
- Lynch, J., Prihodova, L., Dunne, P. J., Carroll, Á., Walsh, C., McMahon, G., & White, B. (2018). Mantra meditation for mental health in the general population: A systematic review. *European*

- Journal of Integrative Medicine*, 23, 101-108. doi: 10.1016/j.eujim.2018.09.010.
- Mishra, K. K., & Dixit, S. (2017). Cultural adaptation of new affective well-being measure in Hindi-speaking youth: Scale of positive and negative experience. *Psychological Studies*, 62 (2), 188-195. doi: 10.1007/s12646-017-0401-2.
- Mukundananda, S. (2021). *Bhagavad Geeta: The Song God*. New Delhi: Rupa Publication India.
- Pandya, P. (2010). *Gayatri Sadhana Why and How?* Yug Nirman Yojna Press, Gayatri Tapobhumi, Mathura. India.
- Pangtey, R., Basu, S., Meena, G. S., & Banerjee, B. (2020). Perceived stress and its epidemiological and behavioral correlates in an urban area of Delhi, India: A community-based cross-sectional study. *Indian Journal of Psychological Medicine*, 42 (1), 80-86. doi: 10.4103/IJPSYM.IJPSYM_528_18.
- Parthasarathi, S. (2020). Ancient science of mantras – Wisdom of the sages. *International Journal of Yoga*, 13 (1), 84. doi: 10.4103/ijoy.IJOY_81_19.
- Rao, K. R. (2011). *Gandhi and Applied Spirituality, Foreword by His Holiness the Dalai Lama*. Delhi, India: Matrix Publishers.
- Rastogi, R., Chaturvedi, D. K., Saxena, M., Sagar, S., Tandon, N., & Rajeshwari, T. (2021). Effect of large-scale performed Vedic Homa therapy on AQI. In *Encyclopedia of Data Science and Machine Learning* (pp. 1024-1040). IGI Global.
- Sahni, P. S., Singh, K., Sharma, N., & Garg, R. (2021). Yoga an effective strategy for self-management of stress-related problems and wellbeing during COVID19 lockdown: A cross-sectional study. *PLoS One*, 16 (2), e0245214. doi: 10.1371/journal.pone.0245214.
- Sanchetee, P. C., & Shreyas Pragya, S. (2020). Impact of Preksha meditation on alpha waves in EEG. *Indian Journal of Clinical Anatomy and Physiology*, 5 (4), 519-524. doi: 10.18231/2394-2126.2018.0119.
- Sao, H. K., Bhardwaj, A. K., & Agrawal, G. (2013). A model of Swadhyay Chikitsa for healthy Mind and Cognitive restructuring. *Dev Sanskriti Interdisciplinary International Journal*, 2, 62-66. doi: 10.36018/dsij.v2i0.25.
- Saraswati, S. (2008). *Four Chapters on Freedom: Commentary on the Yoga Sutras of Patanjali* (1st ed., pp. 10-15). Munger, Bihar, India: Yoga Publication Trust.
- Sharma, A., & Singh, R. (2014). Combating educational stress in adolescents: The miraculous role of chanting mantras. *Indian Journal of Psychological Science*, 5 (1), 25-37.
- Sharma, N. (2020). The Yoga for physical and mental health – Can possibly aid in prevention and management of COVID19 infection? *Dev Sanskriti Interdisciplinary International Journal*, 16, 22-31. doi: 10.36018/dsij.v16i.161.
- Sharma, N., Sahni, P. S., Sharma, U. S., Kumar, J., & Garg, R. (2022). Effect of yoga on the stress, anxiety, and depression of COVID-19-positive patients: A quasi-randomized controlled study. *International Journal of Yoga Therapy*, 32 (2022), article 8. doi: 10.17761/2022-D-22-00013.
- Singh, K., Junnarkar, M., & Jaswal, S. (2016). Validating the flourishing Scale and the scale of positive and negative experience in India. *Mental Health, Religion and Culture*, 19 (8), 943-954. doi: 10.1080/13674676.2016.1229289.
- Singh, K., Mitra, S., & Khanna, P. (2016). Psychometric properties of Hindi version of peace of mind, harmony in life and sat-chit-Ananda scales. *Indian Journal of Clinical Psychology*, 43 (1), 58-64.
- Steel, Z., Marnane, C., Iranpour, C., Chey, T., Jackson, J. W., Patel, V., & Silove, D. (2014). The global prevalence of common mental disorders: A systematic review and meta-analysis 1980–2013. *International Journal of Epidemiology*, 43 (2), 476-493. doi: 10.1093/ije/dyu038.
- Sudha, R (2020). Gayathri mantra and social skills training for social anxiety, stress, self concept, and well being among school students with learning difficulties. *International Journal of Psychosocial Rehabilitation*, 24 (3), 1983-2004. doi: 10.37200/IJPR/V24I3/PR200946.
- Thomas, S., & Rao, S. L. (2016). Effect of Gayatri mantra meditation on meditation naive subjects: An EEG and fMRI pilot study. *International Journal of Indian Psychology*, 3 (2), 14-18 . doi: 10.25215/0302.114.
- Thrisna-Dewi, N. L. P., Arifin, M. T., & Ismail, S. (2020). The influence of Gayatri mantra and emotional freedom technique on quality of life of post-stroke patients. *Journal of Multidisciplinary Healthcare*, 13, 909-916. doi: 10.2147/JMDH.S266580.
- Tseng, A. A. (2022). Scientific evidence of health benefits by practicing mantra meditation: Narrative review. *International Journal of Yoga*, 15 (2), 89-95. doi: 10.4103/ijoy.ijoy_53_22.
- Vivekananda, S. (1915). *The complete works of Swami Vivekananda*. Advaita Ashram: Advaita Ashram.
- Walsh, R. (1983). Meditation practice and research. *Journal of Humanistic Psychology*, 23 (1), 18-50. doi: 10.1177/0022167883231004.
- Wang, C., Li, K., & Gaylord, S. (2019). Prevalence, patterns, and predictors of meditation use among U.S. Children: Results from the National Health Interview Survey. *Complementary Therapies in Medicine*, 43, 271-276. doi: 10.1016/j.ctim.2019.02.004.
- Wiese, C., Keil, D., Rasmussen, A. S., & Olesen, R. (2019). Effects of yoga asana practice approach on types of benefits experienced. *International Journal of Yoga*, 12 (3), 218-225. doi: 10.4103/ijoy.IJOY_81_18.
- Zeidan, F., Johnson, S. K., Diamond, B. J., David, Z., & Goolkasian, P. (2010). Mindfulness meditation improves cognition: Evidence of brief mental training. *Consciousness and Cognition*, 19 (2), 597-605. doi: 10.1016/j.concog.2010.03.014.