

Effects of Vedic Frequencies on Teenagers' Emotional States

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Abstract

Vedas, which directly translates to 'knowledge', is a collection of Hindu hymns and prayers, that have been transmitted orally throughout generations. These shlokams¹ are set to specific frequencies, which have been known to positively affect mental states. This survey-based research study examines the Effects of Vedic Frequencies on the Emotional States of Teenagers aged 13-18 in the Greater Houston Area². Using a process of introspection and providing selected questions about their reactions to the Vedas and their backgrounds, the study collects data from a random sample of 42 participants, including both Hindu and non-Hindu teenagers³. This presents a unique understanding of the effects of the Vedas, as they seem to have an unexpected positive influence in the Western world. Future research with a larger sample size, teens across the nations, and longer exposure time to the Vedas may provide more substantial results. Overall, this study highlights the importance and impact of Vedic frequencies and their potential positive effects on teenagers' emotional states.

¹ Hymns, prayers, mantras

² "In what way do Vedic frequencies emotionally affect Houston teens of various backgrounds?"

³ Hindu (50%) and Non-Hindu (44%) and those Exposed to the Culture (7%)

Effects of Vedic Frequencies on Teenagers' Emotional States

The Vedas were known to be given directly from God Himself to Lord Brahma which was soon given to humans and the concepts were taught as a part of life to all Hindus or Sanathana Dharmis⁴. The Vedas were not initially written down but rather passed down through generations. The Vedas have been and are a large part of Hindu culture and are the foundation for the category of Carnatic Music. The effects of Carnatic Music have been long studied both amongst the Indian subcontinent as well as in the western hemisphere. This research takes back to the foundation of such Carnatic Music which is the Vedas, on the basis that if Carnatic Music has a positive effect on individuals then there is a possibility that the Vedas have a similar effect. The Vedic frequencies, which are similar to the Carnatic Music frequencies and set in a similar mathematical format, have been known to positively affect the participants. For some, they incite a sense of tranquility and engender a change in the mental state of those listening to the stimulus.

LITERATURE REVIEW

Veda, whose direct translation means “knowledge” is derived from the Sanskrit root “vid”, meaning “to know” or divine treasure house of knowledge; however, “is also called ‘Shruti’ meaning what is heard, as opposed to the ‘Smriti’ composed by sages” years after (Introduction | Vedic Heritage Portal, n.d.). Researcher Bhandari states that Sanskrit is “the mother language of the entire Indo- European languages” and the oldest language known to mankind (Bhandari, 2021). The Vedas are a collection of chhandas, sounds in meters, poems, or hymns, dated as far back as 6000 BC (Ramanathan, n.d.). “The Vedic literature has been traditionally preserved by the oral recitations ... transmitted from the teacher to the disciple.”

⁴ Individuals that follow Sanathana Dharama or Hinduism as labled by Westerners

(Dharmadhikari, 2000). The Vedas were later divided into Rig, Yajur, Sama, and Atharva Vedas by Sri Veda Vyasa. Each has its unique organization sounds, providing a unique frequency, and thought associated with the language.

Surprisingly, very few of the original words have been lost to time due to the teaching method and memorization. Researcher Tiwari explains that the three “Prakriti Pathas for memorizing”, methods of ‘construction’, are Samhita, Pada, and Krama Patha, and Vikritis, the eight ways of memorization are Jatha, Mala, Shikha, Rekha, Dhvaja, Danda, Ratha and Ghanapatha, of which is the most challenging and complex (Introduction | Vedic Heritage Portal, n.d.). There are various methods of chanting a shloka, each with a unique frequency that can be explained through both the language and the mathematical organization/expression of each syllable.

This paper explores the relationship between Vedic literature and Carnatic music and the impact of the Vedic frequencies on the emotional reactions of teenagers in the greater Houston area. Examining the similarities and differences between these two traditions provides a better understanding of the complex interactions between culture, language, music, and the brain. It provides insight into a less-researched field of study.

The encoding of complex auditory signals, such as music and chants, at the level of the brainstem, is influenced by a listener's prior experiences, language background, and perception. The Frequency Following Response (FFR), a reaction to an auditory stimulus in the mind, reflects the efficient encoding of speech sounds and varies depending on speech and language disorders (J & Krishna, n.d.). Studies have shown that musicians have better representations of the fundamental frequency (f_0) of speech sounds, linguistic contours, and non-native melodies.

In South India, Carnatic music is a genre of classical music that is sung with accompaniment, including a melodic instrument, the violin, a rhythmic instrument, the mridangam, and a tambura, which acts as a drone and holds the shruthi, key.

The Vedas are considered a divine treasure trove of knowledge and are taught and delivered through mantras, sacred prayers, and formulas. The Vedic literature, which includes hymns and prayers, has been traditionally preserved through oral recitation and transmission from teacher to disciple (Dharmadhikari, 2000). It is speculated, by many Sanskrit Vedic scholars, that the first Vedic stotras were composed as far back as 6000 BC, before the development of writing. Later, Sri Veda Vyasa divided the Vedas into four sections, Rig, Sama, Yajur, and Atharva Vedas, each of which contains "information on various aspects of arts, crafts, science, and engineering". In Sanskrit, the ideas of science and art are denoted by "Shastra or Vidya and Kala" with 14 Vidyas and 64 Kalas. In this context and by meaning "Vidya is ... knowledge of God" or "branches of knowledge" while Kala is cumulatively anything else such as "chemistry, biology, archery, and the fine arts" as explained by Dr. Srinivasan (Guruguha - Sangita Sampradaya Pradarsini English Version, n.d.). So the Vedas not only present the arts of musical foundations, they are also concentrated on such frequencies and sounds - in addition to explaining the purpose of each and every shloka. The Sanskrit letters in each section have a unique organization that provides a distinct frequency and thought associated with the language. The Rig Veda and Upanishads also include the shruthi, swaram or note, ragam or tune, and talam or beat, which "interpret[s] and enrich[s] the language-thought interconnection, making the Vedic literature a classical version of the Sapir-Whorf hypothesis written in Sanskrit" (Bhandari,

2021). These elements are similar to Carnatic music, which also has its roots in the Vedas and is a method of prayer, specifically from Sama Veda.

Carnatic music is also taught and explained through specific oral training and musical structures, as well as a mathematical system for instruments (Guruguha - Sangita Sampradaya Pradarsini English Version, n.d.). Research on the brainstem encoding of pitch differences between Carnatic vocalists, violinists, and non-musicians has demonstrated the impact of listening and pronunciation of Carnatic frequencies. These findings can be applicable to the reactions of individuals from various backgrounds to Vedas, as both methods of prayer share a similar standard frequency.

Indian Carnatic Music

Indian music has been known to have a profound impact on the human mind and emotions, specifically in the area of pitch encoding. Through various studies, it has been shown that individuals who have been trained in Indian Carnatic music tend to have a greater sense of pitch encoding. This is due to the type of training that the vocalists had being more extensive in reaching and matching pitch, unlike the violinists who just have to control the instrument that is not as broad in terms of tuning. Additionally, the specificities of the ragam and thalam require exactness when it comes to the tune, and the organization of the notes affects the responses of the vocalists.

Indian Carnatic music training is generally oral, and the type of training that vocalists receive is more extensive in reaching and matching pitch. Ragams themselves have been shown to influence human emotion, and accurate singing of ragas can change the resonance of the human body. Specific ragas, such as Darbari Kanada, Khamas, and Pantuvaraali, can help in

defusing mental tension, while Malahari pacifies anger, excitement, and mental instability. Dwijavanthi has been found effective in curing mental disorders (Study of Indian Classical Ragas Structure and Its Influence on Human Body for Music Therapy, n.d.). This research focuses on “the influence of Indian classical ragas' structure on the human body while a person is listening and experiencing an emotion” (Study of Indian Classical Ragas Structure and Its Influence on Human Body for Music Therapy, n.d.). This is achieved by capturing EEG⁵ signals as the participants listen to the music. This provides exact instances of ragas and what they do to the brainstem, and emotional processes of humans. This is known to be the effect despite cultural backgrounds; however, the research indicates that language decoding is also a large part of emotional responses to various frequencies.

Vedic Frequencies

Similar to the ragams, each vowel or combination of Sanskrit letters has its frequency such as OM, which has been labeled as the sound of the universe, split into the sounds ‘ah’, ‘o’, and ‘m’. The “Upanishads articulated OM as Śabda-Brahman, the Sound-Absolute” (Beck, 2019). This frequency of OM has been tried and tested and is used for relaxation and helps one reach a heightened state of pure meditation. Furthermore, the source includes a quote from Ravi Shankar, a well-known Sitar maestro who states “Sound is God—Nāda Brahma” and that “musical sound and the musical experience are steps to the realization of the Self” (Beck, 2019). This sound has a frequency of 432 Hz⁶ and has the properties of relaxing and cleansing the body. Likewise, each of the Vedic Samhitas has a tune and a set of frequencies unique to them, for

⁵ Electroencephalogram - “a test that measures electrical activity in the brain using small, metal discs (electrodes) attached to the scalp.”

⁶ Hertz - unit of frequency

example, Sama Veda is the most musical of the Chaturvedas⁷ and is specifically chanted with multiple Carnatic ragas and talas depending on the slokam, generally at 396 Hz which is known for relaxation and more meditative states. On the other hand, Rig Veda is the earliest form of poetry and more specifically spiritual poetry, and a well-known mantram (hymn) Gayatri Mantra, mantram from Rig Veda praying to Goddess Gayatri Devi⁸ to expel negative energy from an individuals body and bestows knowledge upon people, produces a frequency of 110,000 Hz, this has been said to increase the blood supply to the brain affecting memory retention. The Vedas were transliterated into English around the 1890s, and it was almost impossible to understand or read, due to the complex ancient structure of Sanskrit, unlike the English language. The Rig Vedas “praises the gods and codify ritual elements” to get better health or to receive moksha, reaching ‘heaven’ (Bussanich, 2015).

The results of the research into the encoding of the brainstem in Indian Carnatic Music prove the true effectiveness of Carnatic Music on various brain functions such as: how learning and listening to it affects the mind in different ways. Likewise, the diagrams show the participants' cognitive reactions to the musical stimulus. Similar research is done with the Vedas where a researcher explains how young boys learn the Vedas and recite them with full memorization in unison through detailed and systematic practice methods. Likewise, the data received from MRIs⁹ to see the brains of the pandits or saints showed that multiple sections of the brain were dramatically larger; likewise, with “over 10 percent more gray matter¹⁰ across both cerebral hemispheres, and substantial increases in cortical thickness” (Hartzell, n.d.). The

⁷ Sanskrit word to cumulatively mention all Four Vedas

⁸ “She is shown as having five heads and is usually seated on a red lotus - this signifies wealth.”

⁹ Magnetic Resonance Imaging - “non-invasive imaging technology that produces three dimensional detailed anatomical images”

¹⁰ outer most layer of the brain

insight into the minds of these Vedic men shows how effective the learning and chanting of Vedas is on an individual, and this can be used to prove or support the data possibly received from how it may impact emotion.

Gap in the Research

All of the research done on this topic was done on ages 18-45 and Sama Veda or Carnatic Music; however, it did not solely focus on the effect of Veda or teens, ages 13-19, furthermore, much of it hasn't been recorded emotional reactions. While the research on the impact of Vedic frequencies on teens is limited, the positive impact of Indian Carnatic music on various brain functions has been well documented. The commonality seen in this is that the Vedic frequencies which are similar to the Carnatic Music frequencies should positively affect the participants, possibly inciting happiness and tranquility. This study should provide more information on both the importance and the impact of the Vedas, which have been mostly lost to history and have little to no in-depth research. There is potential for further research into the impact of Vedic frequencies on the emotions of teenagers, specifically through the chanting and learning of the Vedas. This study could provide valuable insights into the importance and impact of the Vedas on the human mind and emotions.

RESEARCH METHOD

A survey-based research methodology will be employed to gather data on the potential effects of Vedic frequencies on teenagers from diverse backgrounds. Emotional reactions of teenage subjects, ages 13-18, in the Greater Houston Area, will be collected by prompting the subjects to engage in introspection and respond to selected questions regarding their responses to the Vedas and their backgrounds. Moreover, previous research on the effects of Vedas or similar

frequencies has primarily focused on frequencies found in Indian Carnatic Music and participant groups aged between 18-45 years, utilizing medical technologies such as MRI and EEG (J & Krishna, n.d.). The purpose of the survey-based research is to obtain valuable information on the potential positive or negative impacts of Vedic frequencies on listeners through a simple yet effective approach.

The variables in this study are based on participants' responses and the frequency of the Vedas. The dependent variable is the students' reactions or emotions to listening to the Vedas, which are measured through the survey responses. The independent variable is the Vedic frequencies that are played to the participants. The stimulus played for the participants was an excerpt or set of shlokas from "Atharva Veda', ... called 'Medha Suktham'¹¹ [, which] prays for this divine intuition to dwell and flourish in the aspirant" (Ramanathan, n.d.). The purpose of this specific suktam is to in turn acquire a good and powerful memory, fame, good thoughts, courage, wisdom, internal light, good creative energy, and sound health and one becomes younger not only by mind but by body also, irrespective of ones age (Ramanathan, n.d.). In the suktam, the words are repeated in a specific order and with numerical reasoning, and this style of chanting is known as Ghana Patham. Within the stotram it is repeatedly stated, Mayi Medham in which it requests Goddess Saraswathi¹² for intelligence and protection not only in the physical sense but also mentally. Other variables, such as the participants' cultural background¹³, cultural confidence, preliminary opinions on the topic, and level of cultural exposure, may also impact the study. To account for these variables, participants will be asked minimally intrusive questions about their background and surroundings. They will also be asked to report how they feel both

¹¹ Suktham 4.1.10.41-44 of Atharva Veda

¹² "Hindu goddess of knowledge, music, art, speech, wisdom, and learning"

¹³ Hindu, Non-Hindu, etc.

before and after listening to the Vedas. Finally, participants will be asked whether they feel more or less relaxed, or generally more positive, after listening to the Vedic frequencies. Results will be analyzed to determine variations among subjects, and conclusions will be drawn regarding the general effects of the Vedas.

Due to the nature of the survey research method employed, the resulting data comprises qualitative recordings of participants' emotional reactions to the playing of Vedas. Inquiring about the participants' emotions leads to the generation of quantitative data, which is non-numerical in nature. In contrast, machine-based research techniques such as those employed in the study of ragas played at similar frequencies to Vedas typically yield numerical statistics. The latter approach has been postulated to have a positive impact on the mind and body, leading to the development of new curative methodologies (Study of Indian Classical Ragas Structure and Its Influence on Human Body for Music Therapy, n.d.). The adoption of a survey research approach provides an accessible and straightforward means of gathering data that could corroborate or refute the hypothesis that Vedas have beneficial effects.

The study will focus on students in the Greater Houston Area who are Hindus and those with a Hindu background who have been exposed to the Vedas, as well as Non-Hindus who have no prior knowledge of Hinduism or the Vedas. This will enable the researcher to examine the overall effects of Vedic frequencies while controlling for cultural background in a contemporary and more accepting world than in the past. The participants of the study are teenagers, and the Hindus and Non-Hindus come from diverse backgrounds. This will help determine if there is a different effect of the Vedas on both groups and if they have a positive impact on people from all backgrounds.

The primary tool utilized in this study on Vedic frequencies is an online survey designed through Google Forms. The survey contains personal yet non-intrusive inquiries about the participants, such as their name, age/grade, cultural background, and familiarity with the Vedas. This is followed by questions regarding their current emotional and mental state. The reason for including these questions is that previous research has demonstrated that individuals with a comprehensive understanding of Carnatic music, particularly vocal musicians, exhibit greater FFR wave/responses than non-musicians (J & Krishna, n.d.). This illustrates how musical stimuli can impact individuals' reactions depending on their cultural background, which is a factor that could influence the outcomes of this study. While the questions pertaining to their emotions may lead to introspection that is not entirely precise, collecting data on their cultural background and exposure to Hinduism and Vedic shlokas can provide useful insights. This survey offers a comprehensive and straightforward means of gathering information from all participants and organizing the data into a spreadsheet that separates non-Hindu and Hindu responses. Subsequently, examine the pre and post-listening results of the Vedas and establish a correlation between the Vedas and participants' emotional states.

This process will be conducted over a week's time, with consistent order and procedure across all days. Those who are able to make it to a session will be provided a QR Code for the surveys and the stimulus will be played by the researcher. For the remaining participants, the steps are sent in order and they are expected to complete all three steps. The initial survey will provide participants with approximately 4-5 minutes to complete, refer to *Appendix A*, after which Medha Suktam will be played for 4 minutes. Subsequently, the second survey will be administered with similar questions, refer to *Appendix B*, requiring an additional 4-5 minutes for

completion. Results from both surveys will be compared while accounting for cultural backgrounds to determine whether results between the two groups are impacted by preliminary bias. Furthermore, contrasting the emotions of participants before and after listening to the frequency/shlokas will enable the identification of a 'common' impact of the Vedas on individuals.

RESULTS AND FINDINGS

Preliminary Details

Figure 1

Background of the Participants

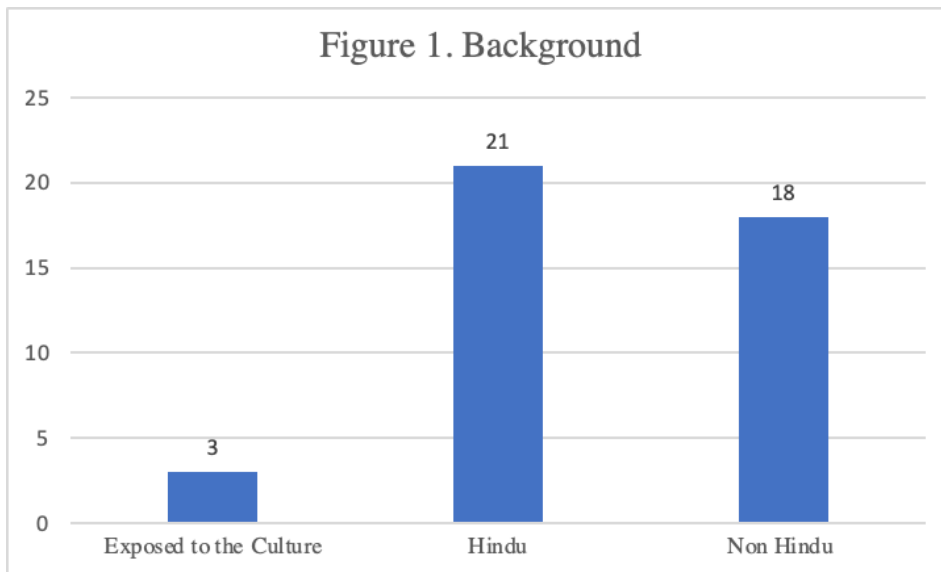


Figure 2

Preliminary results of whether Participants know what the Vedas are.

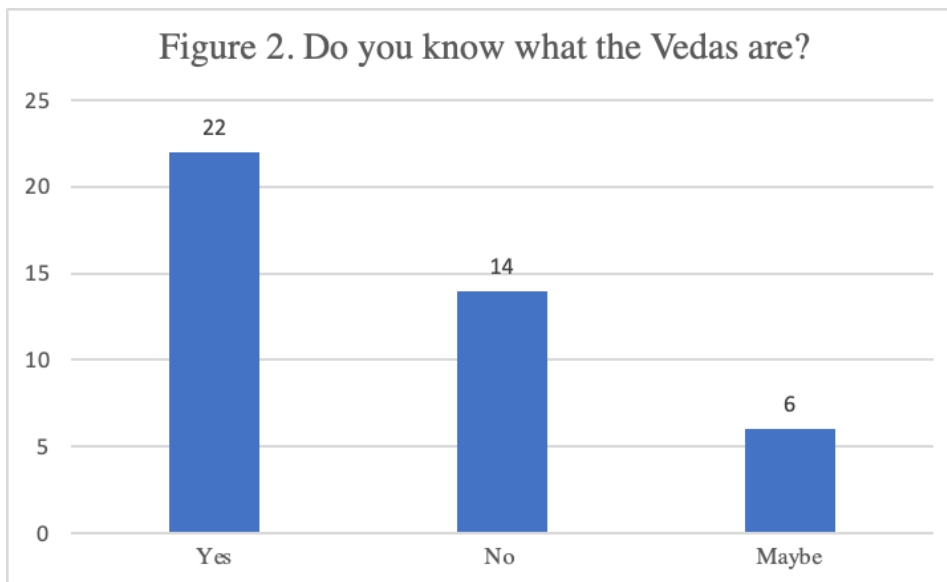


Figure 3

Participants' Expectations of the Vedas.

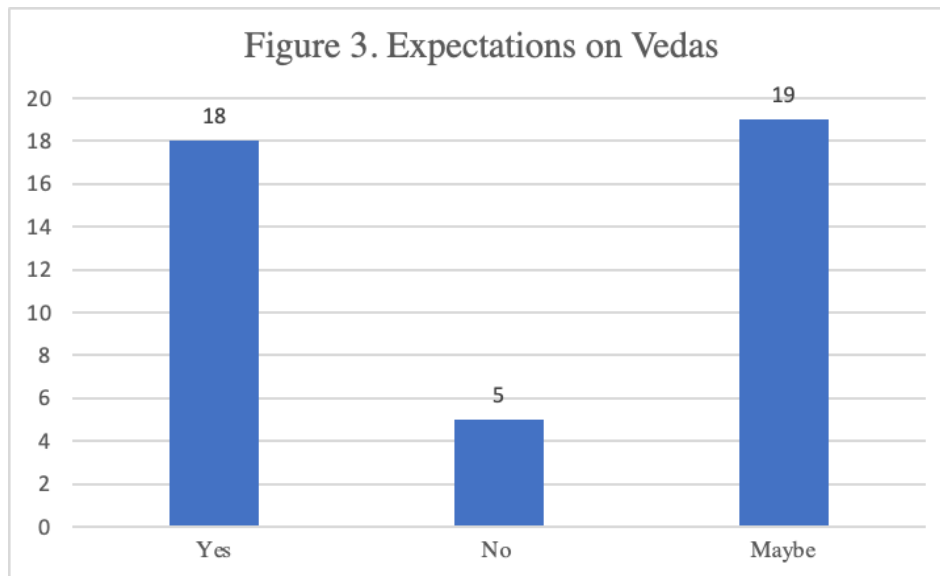


Figure 1, presents a visual of divisions of all the backgrounds of the participants, presenting Hindus and Non-Hindus, as well as those who have been simply exposed to the culture, rather than identifying on either spectrum. This shows that 50% are Hindus and the other 50% consist of anyone other than Hindus, this was in order to account for various individuals. Likewise, a question about the knowledge or background of the participants was asked and as seen in Figure 2, resulting in a majority of individuals stating they are aware of what the Vedas may entail and about 33% of participants do not know what the Vedas are. Another vital piece of information to understand the results of the study was to ask the participants whether they believed the Vedas will have a positive effect on their mental or emotional state. This is graphed in Figure 3, where almost the same amount of individuals either strongly believe it will have an effect or are partially unsure, this later accounts for the results of the study.

Results of Emotional States

Figure 4.
Overall Emotional Responses for all Participants

Emotional Category or Question	(N=42)			
	Pre-Test		Post-Test	
	Mean	SD	Mean	SD
I feel very overwhelmed right now.	2.71	7.48	2.31	7.42
I feel numb.	2.45	12.77	2.33	7.87
I feel very anxious right now.	2.57	7.48	2.19	7.48
I am relaxed right now.	3.05	6.93	3.74	6.40
I believe that I actually feel happy right now.	2.98	6.86	3.45	7.00
I am having a good day.	3.38	7.07	3.64	7.00
I am content.	3.17	6.40	3.74	6.40

The following presents the statistical results for the received response from a total of 42 participants of which as mentioned above 21 come from a Hindu background and 18 were of Non-Hindu background. It is understood that a high numerical result for the first three statements provided in the survey “I feel very overwhelmed right now.”, “I feel numb.” and “I feel very anxious right now.” are more negative statements, and seeing a decrease in this value can determine that there is somewhat of a positive effect of the Vedas on an individual. On the other hand, a lower numerical result for the following four statements provided in the survey “I am relaxed right now.”, “I believe that I actually feel happy right now.”, “I am having a good day.”, “I am content.” are more negative responses, and unlike the previous statements seeing an increase in these values can determine that the Vedas can improve the emotional or mental state of an individual at the high school level.

Data was collected from the overall responses from all types of participants, and the mean and standard deviation was calculated from the responses which are placed on a scale from 1-5, with '1' being *strongly agree* and '5' being *strongly disagree*. This is presented in Figure 4, with a slight decrease in the means between the pre and post-test amongst the first three questions and a marginal increase in the means for the last four questions. The effect of the stimulus played is still effective yet, not as significant as expected.

Figure 5.
Emotional Responses for Hindus

Emotional Category or Question	(N=21)			
	Pre-Test		Post-Test	
	Mean	SD	Mean	SD
I feel very overwhelmed right now.	2.90	5.10	2.33	5.67
I feel numb.	2.38	6.32	2.48	6.00
I feel very anxious right now.	2.81	5.48	2.29	5.67
I am relaxed right now.	2.86	4.80	3.90	3.46
I believe that I actually feel happy right now.	2.95	7.48	3.48	5.29
I am having a good day.	3.24	5.00	3.48	5.10
I am content.	3.05	4.80	3.71	5.10

On the other hand, the researcher also divided the data into subgroups, the Hindu and Non-Hindus, to understand if there is a change in the effects between the different groups as cultural backgrounds can change the impact of such a stimulus. The change between the Hindu's Pre and Post-Test, amongst 21 participants, as seen in Figure 5, was not as great as hypothesized, and there was an increase in the change for the statement "I feel numb" which is counteracting what is expected, in order to determine strong effects of the Vedas.

*Figure 6.**Emotional Responses for Non-Hindus*

Emotional Category or Question	(N=18)			
	Pre-Test		Post-Test	
	Mean	SD	Mean	SD
I feel very overwhelmed right now.	2.67	4.90	2.44	5.22
I feel numb.	2.67	5.83	2.33	4.90
I feel very anxious right now.	2.33	4.24	2.22	4.69
I am relaxed right now.	2.67	5.83	3.40	4.80
I believe that I actually feel happy right now.	2.33	4.24	3.33	4.00
I am having a good day.	3.22	4.90	3.72	4.40
I am content.	3.00	3.46	3.72	3.61

On the other hand, there was a comparatively greater change between the means of the Pre and Post Test, amongst 18 Non-Hindu participants, than the Hindu participants which is an unexpected result; however, this provides the researcher with reason to consider that the Vedas can affect the participants, or specifically school high teenagers between 13-18 years of age among the western modern world.

*Figure 7.**Hypothesis - Post-Test*

Emotional Category or Question	Ho	Ha
I feel very overwhelmed right now.	=3.00	<3.00
I feel numb.	=3.00	<3.00
I feel very anxious right now.	=3.00	<3.00
I am relaxed right now.	=3.00	>3.00
I believe that I actually feel happy right now.	=3.00	>3.00
I am having a good day.	=3.00	>3.00
I am content.	=3.00	>3.00

Figure 7 displays the null and alternative for each emotional statement. The mean value that could be selected is 3.00 and set to the null value. While the alternative hypothesis varies depending on the statement. A mean value less than 3.00 for the first three statements and a value higher than 3.00 for the following four allows the researcher to conclude a positive or definite effect of the Vedas. These hypotheses are applied to Figures 4 through 6 in order to understand the effects of Vedic frequencies.

ANALYSIS

After analyzing the results of the study, a positive effect of the Vedas was observed through a random sample of teenagers in the Greater Houston area. The study consisted of a minimum of 30 participants from both Hindu and non-Hindu backgrounds, which accounted for less than 10% of the total population. The results indicated a larger effect of the Vedas on non-Hindu participants or those who had exposure to the culture rather than on the Hindus themselves, as initially hypothesized. Nevertheless, there was a discernible change in the

participants, as the values related to the alternative hypothesis, allowing the researcher to reject the null hypothesis and conclude that the Vedas have a positive effect on high school teenagers aged 13-18 in the Greater Houston area. Figure 7 displays that the first three questions were hypothesized to have an overall decrease in values, while the following four questions were expected to have an increase in values to prove a positive effect of the Vedic frequency. Applying the calculated means to this hypothesis, it can be concluded that there is a positive correlation between the Vedic frequencies and their influence on the emotional states of individuals, particularly teenagers. Although most participants had a positive attitude before the study, an improvement in the mean value selected for agreement towards the provided statement was still observed.

Moreover, as illustrated in Figure 4, the standard deviations exhibit an average of approximately 7.08, indicating a considerable discrepancy between the values under a normal distribution curve. This suggests a noticeable variance in responses among the participants, indicating differences in their perception of the stimulus.

After segregating the participants' data into Hindus and Non-Hindus, and excluding those who do not belong to either group, it is observed that the variance between the pre-test and post-test scores is higher among Non-Hindus. This implies that despite not being culturally associated with the Vedic culture and lacking identity-based bias towards the expectations of the Vedas, individuals outside of the religious scope have experienced a positive impact from the Vedic frequencies. Thus, apart from individuals within the culture, such as sages, pandits, or Indian Vedic scholars, who believe in the effects of the Vedas based on religious ideals, the

frequencies have also influenced Non-Hindu teenagers in the Western world. This finding provides evidence in support of the impactfulness of the Vedic frequencies.

LIMITATIONS

Much of the study has resulted in changes that could still be used to accept that the Vedas do affect the mental or emotional state of teenagers however needs to be larger to determine that there is a strong or definite positive effect. In addition, many participants were in different emotional states according to the time each participant completed the survey, as seen in the written, qualitative response, it is noticed that most participants were in a positive mood, to begin with, due to external factors, such as a lack of homework or tests, or a positive score on a test. Likewise, it could be understood that there is a more significant margin of difference between the results of the Non-Hindus because the researcher is a Hindu, and participants may feel an obligatory need to feel or expect a positive response from the stimulus, this can be seen as response bias. Overall there was not a substantial difference between the overarching means; however, the researcher can still somewhat determine that there is some effect that the Vedas provide, and this could be further developed with more sample testing and development.

CONCLUSION AND IMPLICATIONS

Numerous studies in the field of music have been conducted to enhance the psychological and physiological states of individuals. However, much of the music studied has been predominantly Western in nature, with only occasional references to Carnatic music, as demonstrated in J. Prajna Bhat and Rajalakshmi Krishna's research on the psychological implications of Carnatic music. The frequencies of the Vedas, which are known to have a profound impact on individuals' emotional and physiological well-being, have not been

extensively studied in this context. Therefore, it is imperative to conduct research on the effects of the Vedas, which could yield positive outcomes and contribute significantly to medical advancements. Results suggest a positive correlation between the Vedic frequencies and their influence on the emotional states of individuals, specifically teens. Most participants had a positive attitude at the conclusion of the study, and the mean value of agreement towards the positive statements improved, and decreased towards the more negative statements, indicating a positive effect of the Vedas. Surprisingly, the effect was greater among non-Hindu participants or those with exposure to the culture rather than among Hindus. This study provides valuable insights into the impact of the Vedas on individuals' emotional and physiological states and may facilitate their integration into modern medical practices. By drawing on prior research and the Vedas themselves, this study aims to shed light on the potential uses of the Vedas in medical procedures and pave the way for their increased application in this field.

FUTURE GROWTH

Future research, conducted with a larger sample size and longer exposure to the Vedas, could yield more substantial results. This study could be grown to accommodate a large range of individuals, such as a random sample of about 100 or more teenagers across the nation, over a longer span of time. Access to more sources would further enhance the study's ability to provide greater evidence of the importance and impact of Vedic frequencies. It can also be coupled with devices such as EEGs to understand the internal psychological responses of each of the participants, providing greater proof of the effects of Vedic frequencies, as demonstrated in the study titled "Effect of Listening Biographies on Frequency Following Response Responses of

Vocalists, Violinists, and Non-Musicians to Indian Carnatic Music Stimuli."¹⁴ Additionally, ensuring that all participants attend and complete the survey and listen to the audio or stimulus at a given time and in the same location, or generally held accountable would reduce any potential marginal errors or biases. Delving into such an unexplored topic thus far and coming up with promising results in terms of its positive impacts, it could possibly offer solutions or recovery methods for diseases as far as cancer. This is a long-term goal and provided the resources and amiable participants and co-researchers it is probable growth in a minimally known field of research, providing solutions to previously unattainable goals.

¹⁴ J. Prajna Bhat and Rajalakshmi Krishna

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Appendix

A. Pre-Survey

The Vedas have positive vibrational frequencies that have not been greatly studied and lack modern or recent proof of their effects, especially on teens or those of the newer generations. The Vedas have been claimed to have therapeutic or healing properties both in physical and mental capacities. This study is to understand and prove this statement.

This is the survey prior to the audio of the Vedas being played.

Email:

Name:

Parents Name:

Other Details

Grade:

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior

Age:

Cultural Background:

Hindu or Non-Hindu:

- a. Hindu
- b. Non-Hindu

- c. Have been exposed to the culture but don't identify on either spectrum

Do you know what the Vedas are?

- a. Yes
b. No
c. Maybe

What do you know about Hinduism(Sanatana Dharma) and the Vedas? How much prior knowledge do you have on this culture?

Emotional Ratings

This is a check of how the individual is feeling at the given time.

1 - strongly disagree to 5 - strongly agree

I feel very overwhelmed right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am relaxed right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I feel numb.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I believe that I actually feel happy right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am having a good day.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am content.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am very open to new cultures.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I believe music/Vedas have restorative and calming properties.

Strongly Agree 1 2 3 4 5 Strongly Disagree

Frequencies have the ability to affect my mood.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I feel very anxious right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

Expectations

What do you expect from this activity or the research at hand.

Do you believe that the Vedas(their frequencies) will have a positive effect on you?

- a. Yes
- b. No
- c. Maybe

Provide a Short Description on your Expectations.

B. Post-Survey

The Vedas have positive vibrational frequencies that have not been greatly studied and lack modern or recent proof of their effects, especially on teens or those of the newer generations. The Vedas have been claimed to have therapeutic or healing properties both in physical and mental capacities. This study is to understand and prove this statement.

This is the survey after listening to the audio of the Vedas being played.

Email:

Name:

Parents Name:

Other Details

Grade:

- e. Freshman
- f. Sophomore
- g. Junior
- h. Senior

Age:

Cultural Background:

Hindu or Non-Hindu:

- d. Hindu
- e. Non-Hindu
- f. Have been exposed to the culture but don't identify on either spectrum

Emotional Ratings

This is a check of how the individual is feeling at the given time.

1 - strongly disagree to 5 - strongly agree

I feel very overwhelmed right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am relaxed right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I feel numb.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I believe that I actually feel happy right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am having a good day.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am content.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I am very open to new cultures.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I believe music/Vedas has restorative and calming properties.

Strongly Agree 1 2 3 4 5 Strongly Disagree

Frequencies have the ability to affect my mood.

Strongly Agree 1 2 3 4 5 Strongly Disagree

I feel very anxious right now.

Strongly Agree 1 2 3 4 5 Strongly Disagree

Your Opinions

Participants' final opinions.

Do you believe that the Vedas(their frequencies) have had a positive effect on you?

- d. Yes
- e. No
- f. Maybe

What are your closing remarks on this study and expectations for the conclusions of this study?