



# An experimental study of the effects on participants of the one-week Ashram based YPV Arhat Yoga Intensive Program on their BMI, energy and stress levels, brain wave activity and heart rate variability (HRV)

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#### Abstract

**Objectives:** The term holistic Health includes physical, emotional and mental domains. This study is designed to know the effects of the YPV Arhat Yoga along with Constancy Affirmation on participants who practiced for one week under the guidance of their Arhat Trainers.

**Subjects:** 39 participants (31 females and 8 males) of a one- week intervention of Yoga Prana Vidya (YPV) Arhat Yoga system conducted at the YPV Ashram.

**Methods:** This is a quantitative research study. The Parameters measured were BMI, Brainwaves, HRV and Stress and energy levels using GDV camera pre and post intervention. Data analysis used descriptive statistics and statistics of significance.

**Results:** Body weight and BMI showed statistically significant reduction. Stress measured using the GDV Camera showed improvement for majority of participants. The energy levels showed 5.12% improvement for males and 4.78% improvement for females. Analysis of HRV data showed that a majority of the participants were found to be calmer and more relaxed. Analysis of Brain wave data showed that Alpha wave which is a measure of physical and mental relaxation was the highest compared to Delta, Theta and Beta waves. The imbalance between the left and right brain reduced for both males and females.

**Conclusion:** Yoga Prana Vidya Arhat Yoga system practiced in ashram environment for one week showed considerable improvement in physical, mental and emotional domains. This study has contributed to this field with scientific documentation that can be helpful and beneficial to people at large.

**Recommendation:** Further research related to this phenomenon with appropriate methodology and sample size is recommended. GDV camera system of energy body measurements is recommended as a diagnostic tool for human wellbeing.

**Key words:** GDV Camera, MUSE Brainwave EEG, Omron karadascan, SANKAT Life 2.0, YPV Arhat Yoga, Yoga Prana Vidya System ®, YPV ®

#### Introduction

#### Yoga Prana Vidya System

Yoga Prana Vidya is an integrated and a holistic healing modality which uses the knowledge of Prana or life force for the physical, emotional, mental, and spiritual well-being of an individual. It is a complimentary and also in some cases it is an alternative healing therapy used to cure physical and psychological several ailments. It is based on the principle that our body has the ability to heal itself or normalize itself. Energy body or Pranamaya Kosha interpenetrates and extends beyond the physical body and also known as aura. Disease is associated with dirty and diseased energy and psychic contamination in the aura. By improving this energy by various integrated techniques including healing the energy body, healing process is accelerated. Prana is surrounding us. The energy body consists of various chakrams (See Fig 1) and Nadi's which control and distribute energy to various organs and systems of our body. Figure 2 shows a diagram of the energy body of a healthy person and Figure 3 shows that of a sick person. The picture of the energy body can be captured as an image using the Bio-well GDV (Gas Visualisation) Discharge Camera. as shown in Figure 4.

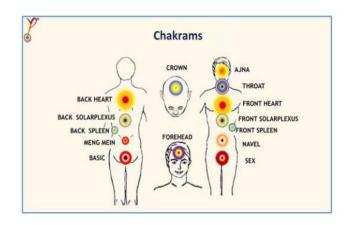


Figure 1: Chakras or energy centres

Using the various techniques in YPV such as Yogic Rhythmic breathing exercises, forgiveness sadhana, meditation techniques, right diet and most importantly using the technique of YPV energy healing, by means of which the chakrams and the aura can be treated to recover from sickness.

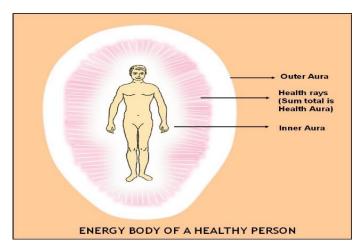


Figure 2: Energy body of a healthy person

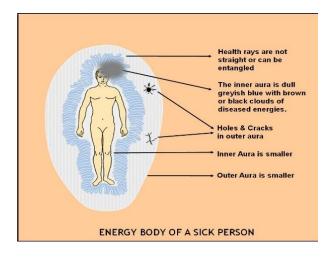


Figure 3: Energy body of a sick person

The process of treating chakrams and related body parts consists of cleansing or removing the diseased, dirty or the used-up energy and filling it up with fresh energy by the trained healer, thus balancing the chakrams or the energy centres and normalising the body parts.

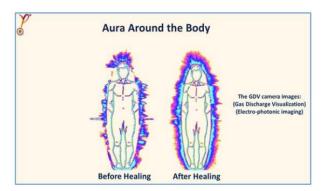


Figure 4: Picture of the energy body taken using the Bio-well GDV camera

Using this ancient technique of energy healing, YPV has healed numerous ailments both physical and psychological in nature. There are over 60 research papers published on successful applications of YPV, for example a case of metastatic breast cancer, difficult medical cases, diabetes, arterial heart block case, postherpetic neuralgia, exostosis of ear, vision improvements, high blood cholesterol and asthma, Improved wellbeing and immunity, cases of first-aid and emergency, speedy recovery of COVID-19 patients, hypothyroidism, serious snakebite etc.[1-14] There are also research papers on empirical studies published by YPV such as, a paper on reduction in anxiety and depression of corporate employees [15], reduction in the criminal attitude of under-trial prisoners [16], improvement of IQ and social behaviour of mentally retarded children [17], effects of Planetary peace meditation conducted for over 100 high school students [18].

#### YPV Arhat Yoga

Yoga Prana Vidya (YPV) Arhat Yoga is a synthesis of all yoga and is a structured pathway for spiritual evolution while balancing with worldly life. This programme conducted at Ashram consists of a series of daily activities working through 6 am to 10.30 pm, and includes modules of Physical and Yogic breathing exercises, deeper purification techniques, various sessions of meditations, service activities, book studies, Group healing sessions, moral values and characterbuilding modules, positive affirmations etc. for all-round development spiritually, physically, mentally and emotionally. A one-time a day full fruit diet (in the morning) and regular salt-free diet is an essential component of all YPV Ashram based programmes. Arhat Yoga is based on ancient science of Yoga, adapted and structured in a system known as Yoga Prana Vidya (YPV) to suit modern way of living, enabling the practitioners to balance life in spiritual and worldly domains. To practitioner. a major practical the manifestation of Arhat Yoga is the capability to render bio-plasmic energy healing to sick people to treat and cure various illnesses and diseases miraculously without using any medications and without touch. The focus of this study is the oneweek schedule of the intensive refresher course as shown in Table1 for the selected practitioners who are already trained as Arhat Yogis.

TIME	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
TIME	SATURDAY	SUNDAY	MONDAY	TUESDAY	VEDNESDAY	THURSDAY	FRIDAY
06:00:00	Physical Exercise with Arhat Breathing	Physical Exercise with Arhat Breathing	Physical Exercise with Arhat Breathing	Physical Exercise with Arhat Breathing	Physical Exercise with Arhat Breathing	Physical Exercise with Arhat Breathing	Physical Exercise with Arhat Breathing
07:00:00	Virtue BT and Service BT	Virtue BT and Service BT	Virtue BT and Service BT	Virtue BT and Service BT	Virtue BT and Service BT	Virtue BT and Service BT	Virtue BT and Service BT
07:20:00	Tea Break	Tea Break	Tea Break	Tea Break	Tea Break	Tea Break	Tea Break
07:30:00	FB Live session- Morning Sadhana	FB Live session- Morning Sadhana	FB Live session- Morning Sadhana	FB Live session- Morning Sadhana	FB Live session- Morning Sadhana	FB Live session- Morning Sadhana	FB Live session- Morning Sadhana
08:30:00	Affirmation on Manifestation	Affirmation on Manifestation	Meditation on Atma	Meditation on Dhyan	Affirmation on Manifestation	Constancy Affirmation	Affirmation on Manifestation
09:00:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
10:00:00	FB live session- 10 am Group Healing	FB live session- 10 am Group Healing	FB live session- 10 am Group Healing	FB live session- 10 am Group Healing	FB live session- 10 am Group Healing	FB live session- 10 am Group Healing	FB live session- 10 am Group Healing
10:30:00	Healing session followed by repeating Constancy Affirmation 3 times	Healing session followed by repeating Constancy Affirmation 3 times	Healing session followed by repeating Constancy Affirmation 3 times	Healing session followed by repeating Constancy Affirmation 3 times	Healing session followed by repeating Constancy Affirmation 3 times	Level Meditations	Healing session followed by repeating Constancy Affirmation 3 times
13:00:00	FB live session- The	FB live session- The	FB live session- The	FB live session- The	FB live session- The	FB live session- The	FB live session- The
13:00:00	Great Invocation	Great Invocation	Great Invocation	Great Invocation	Great Invocation	Great Invocation	Great Invocation
13:45:00	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch
14:30:00	Horizontal Rest	Horizontal Rest	Horizontal Rest	Horizontal Rest	Horizontal Rest	Horizontal Rest	Horizontal Rest
15:30:00	Book Study Discussion		Book Study Discussion	Book Study Discussion	Book Study Discussion	Book Study Discussion	Book Study Discussion
16:45:00	Physical Exercise followed by Virtue IRFR and Forgiveness		Physical Exercise followed by Virtue IRFR and Forgiveness	Physical Exercise followed by Virtue IRFR and Forgiveness	Physical Exercise followed by Virtue IRFR and Forgiveness	Physical Exercise followed by Virtue IRFR and Forgiveness	Physical Exercise followed by Virtue IRFR and Forgiveness
18:00:00	Tea Break		Tea Break	Tea Break	Tea Break	Tea Break	Tea Break
18:30:00	FB live session- Metta Meditation	Movie	FB live session- Metta Meditation	FB live session- Metta Meditation	FB live session- Metta Meditation	FB live session- Metta Meditation	FB live session- Metta Meditation
19:45:00	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner followed by Lord's prayer meditation
22:00:00	10 pm Group Healing and Channeling session	10 pm Group Healing and Channeling session	10 pm Group Healing and Channeling session	10 pm Group Healing and Channeling session	10 pm Group Healing and Channeling session	10 pm Group Healing and Channeling session	10 pm Group Healing and Channeling session

Table 1: Contents of 1- week Arhat Yoga Intensive Practice Programme

These programmes are conducted periodically once or twice a year to participants required to stay at the YPV Ashram, who are Arhat Yoga practitioners and who participate voluntarily to maintain their competencies and Yogic evolution up-to-date. Ashram living conditions enable participants to stay in an environment without worldly distractions, and an environment free of pollution, and with abundant subtle energy fields generated from daily deeper meditations and positive affirmations. Experience of visitors to the Ashram shows that mere stay in the Ashram for a few days alone has cured some illnesses.

The objective of this study is to know how the programme impacted the participants in terms of physical, mental, emotional and spiritual dimensions, since there is no previous data available on this topic. Therefore, this study is aimed at documenting scientifically and presenting the outcomes of this one-week programme conducted for 39 participants during September and October 2021, bv measuring selected parameters to reveal resultant changes in their physical, mental, emotional and spiritual domains.

#### Methodology

This is an observational and interventional study of the effects of the one-week Arhat programme on the participants, by measuring the chosen parameters scientifically with relevant instruments before and after the one week of programme. This study uses quantitative methods of data collection and analysis using descriptive statistics and analysis of statistical significance for the selected parameters.

#### Sample

For this study, data from 39 participants (Total- 31 females and 8 males from 2 batches), of the 1-week YPV Arhat programme were selected. They attended in two batches based on their arrival and departure dates for the one-week YPV Arhat Yoga Spiritual Intensive program, as shown in Table 2.

Batch	Date of Arrival- Date of Departure	No. of people
Batch 1	24 Sept 2021 01 Oct 2021	31
		(25 Females & 6 Males)
Batch 2	01 Oct 2021 08 Oct 2021	8
		(6 Females & 2 Males)
TOTAL		39
		(31 Females & 8 Males)

 Table 2: Sample of participants

The programme was identical to both batches. The participants from these groups were very heterogeneous and the individual's age in years ranged from 20 to 74, with a mean age of 46.07 years. The number of years of their practicing YPV Arhat Yoga ranged from a few months to 15 years, with a mean of 6.4 years. They came from different regions of the country (India) with a variety of mother tongues and cultures. Their academic background also was very varied from middle school level to a PhD. There were undergraduates, 17 graduates and 14 postgraduates including one PhD. Interestingly however, what was common to all of them was YPV Arhat yoga practice. Informed consent was taken from all of them to participate voluntarily in this study with data collection using relevant instrumentation to measure the selected parameters.

# **YPV Intervention**

The sample participants were put through a daily schedule of the programme conducted by their trainer from 6 am to 10 pm. During this time, they underwent 3

sets of physical exercises in the morning followed by Arhat Breathing exercises. then practiced blue They triangle techniques for the virtue. Each day they would practice this for different virtues (loving kindness and non-injury, generosity and non-stealing, accurate perception & correct expression and nonfalsehood, constancy of aim & effort and non-laziness, & moderation and nonexcessiveness). This would be followed by a short break for green tea and Isabgol. They would then attend the live online session of YPV Grand Mentor which includes many purification techniques like om chanting, affirmations, PPM (Planetary Peace Meditation) etc. After the morning sadhana they would practice Affirmation on Manifestation and rooting. On two days after the morning sadhana they would practice Arhat meditations like Soul and Dhyana and. This would be followed by breakfast which included coconut water and several fruits. After the breakfast, they would gather for 10 am live Divine Group healing session which heals the entire physical, emotional and mental bodies. They would then proceed for conducting healing sessions. This involves using YPV energy healing techniques for distantly healing others or even self. During the healing sessions, they regularly practiced Constancy Affirmation (Figure 5) 3 times. After the healing session, they would join for the live online session of The Great Invocation prayer conducted by YPV Grand Mentor to bless the planet Earth and people of various continents. Post this, they would break for salt- free vegetarian lunch followed by horizontal rest time. After this, they would gather for book study sessions on various spiritual topics. After this, they would do 2 sets of physical exercises followed by practicing Virtue reflection IRFR (Internal and firm resolution) technique and forgiveness sadhana. Post this they would break for snack and tea and later join for the live online session of Metta Meditation at 6-30 pm. After the meditation they would break for dinner and then again meet at 10 pm for Divine group healing and channelling session. On one of the days, they would also practice lord's prayer meditation for purification before the 10 pm session. On Thursdays after 10 am Group healing session, they practice Arhat Kundalini / Level meditation. On Sunday after morning sadhana, they are allowed leisure and entertainment for the rest of the day by watching a special movie of an ideal message screened in one of Halls. The schedule was followed for the 7-day week of their stay.

The participants recited the Constancy Affirmation daily 3 times, after which all the tests were taken. These tests were taken before their lunch time between 11 am to 1 pm. This Affirmation and Affirmation on Manifestation are conceptualized by YPV Grand Mentor and Founder. Each one is a set of positive affirmations that help the reader to keep the Heart chakram bigger and to radiate goodness, and generate entitlement to manifest the right targets. Reciting the affirmation daily can have a positive impact on the reader and uplift them psychologically and spiritually.

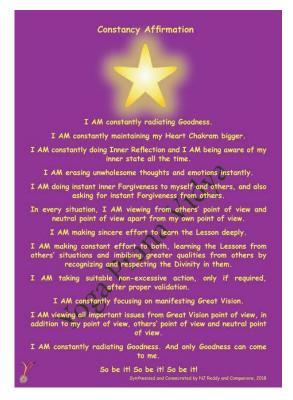


Figure 5: YPV

# Constancy Affirmation

# Data Collection & Instruments used

The parameters selected were: Physical body weight and BMI (Body mass index), stress and energy levels of aura (energy body) imaging using GDV (Gas discharge Visualisation) camera, Brainwave analysis, and HRV (Heart rate variability).

Corresponding instrumentation used are as stated below.

- BMI was measured using Omron karadascan
- Bio-Well GDV camera was used for measuring the stress and energy in the aura

- For Brainwave analysis, MUSEbrain sensing head band., – a research-grade EEG device was used.
- Heart Rate Variability (HRV) was measured using the instrument SANKAT Life 2.0.

Brief description of the instruments and the parameters to be measured are explained below.

a) BMI measurement using OMRON Karadascan:

This instrument was used to measure the BMI and body weight of each participant.

b) Bio-Well GDV Camera:

GDV is based on Kirlian effect that allows to capture and process digital images of the gas discharge (Glow). Bio-Well Software is specifically designed to work with the Bio-Well GDV Camera device. It allows to capture images of bio-field energy around human fingers and process the captured data on the Bio-Well Server. The Bio-Well GDV Camera device can be used for the purpose of capturing and analysing the electro-photonic glow of human fingertips and other conductive objects placed on its electrode, and the technology does not pose a risk to the safety of users. Each individual is required to insert their fingers one at a time in the GDV camera. Safety measures and other instructions related to capturing the data using this instrument were taken care of.

The result of the scans performed includes the Energy field assessment, energy levels and alignment of all the chakras, energy paraments of the energy channels or meridians and also the stress levels state, energy levels, balance and the disbalance in various organs of the body, biorhythms etc. Figures 6, 7,8 and 9 show how the GDV interpolated output from one person's scan of fingers in the form of printouts. For purposes of this study the two parameters of the aura measured are stress and energy.

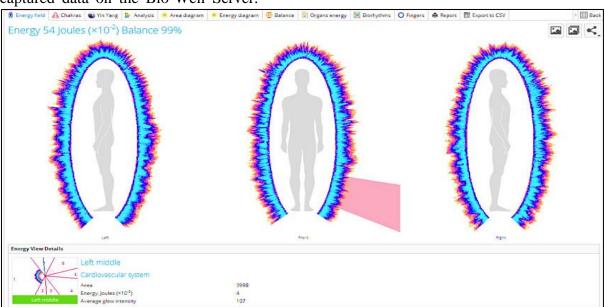


Figure 6: Energy Diagram

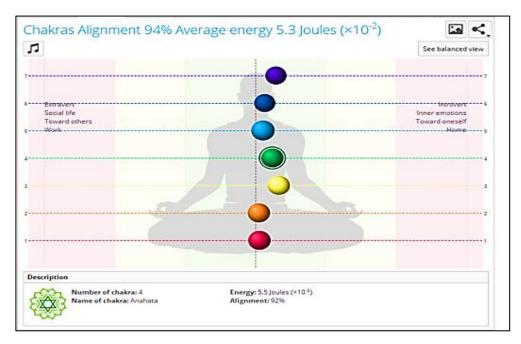


Figure 7: Chakra Alignment and Energy levels

🕅 Energy field		😧 Yin Yang	🍃 Analysis	🖲 Area diagram	Energy diagram	Balance	👔 Organs energy	🗏 Biorhythms	O Fingers	🖨 Report	Export to CSV		) 🔡 Back
Energy S	can Ana	lysis											<
STRESS: Optir	mal												
				2.72									
0	N.M		OPTI			ANDETY		MEDIU			HEIGHTENED	DISTRESS	
0	1	2	2	5	3	25	4	5		6	7	9	10
ENERGY: Opti	mal												
							54.33						
	LOW			LOWER			OPTIMAL				HEIGHTENED	HIGH	
0	10		20	30	40		50	60	70		80	10	100
BALANCE: Op	timal												
												9	8.69
			VERY	LOW					LOW			OPTIM	AL.
0	10		20	30	40		50	60	70		80	0	100
*ORGANS DIS	BALANCE, 9	6: Optimal											
						1.50							
	нкя		MED	JIM		0	PTIMAL			MEDIUM		нан	
5		10		5			0		5		10		15

Figure 8: Analysis of various parameters

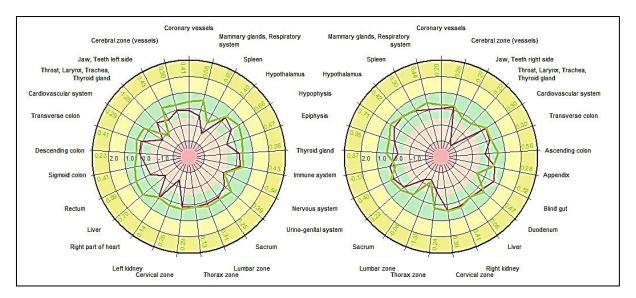


Figure 9: Energy and Area Diagram

The GDV technique is accepted by the Russian Ministry of Health as a Medical technology and by the Russian Ministry of Sport and one of the critical technologies for sport. It has FDA certification in the certified in Europe. USA: Pacific countries, India, China, Australia and Americas [19]. The instrument has certified users across various countries in the US and Europe, South America, parts of Southern Africa, few countries in the Middle East, India, Australia and many countries of the South East Asia. It is widely used in medical field, psychology field, and by various researchers across the globe to evaluate the psychosomatic and physiological state of a person [20].

# MUSE Brain Wave headband

Muse is a wearable brain sensing headband. The device measures the brain activity that uses EEG (Electroencephalography) principles, and gives accurate, real-time feedback on the state of one's brain. Our brain is constantly generating electrical signals when thinking, sleeping or even relaxing. These signals can be detected from outside our head, via sensors. Muse uses the same brain sensing technology to detect the brain signals, similar to how a heart monitor measures the pulse. Muse has 7 finely calibrated sensors, 2 on the forehead, 2 behind the ears plus 3 reference sensors, which detect and measure the activity of the brain. Figure 10 **MUSE** data into different shows wavelengths viz., Delta, Theta, Alpha, Beta and Gamma. It is possible to assess the extent of balance or out of balance of left and right brains as shown in Figure 11. Figure 12 shows the signal ranges and corresponding brain activities [21]. Since Alpha wave is a measure of reduced anxiety. depression, stress and increased tendency of tolerance, happiness, calmness, creativity and productivity; for this paper, we have focussed more on the analysis of Alpha wave data.

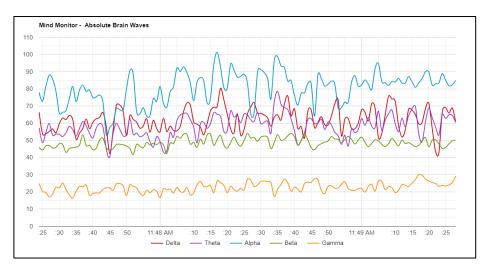


Figure 10: Mind monitor of MUSE data into different wavelengths

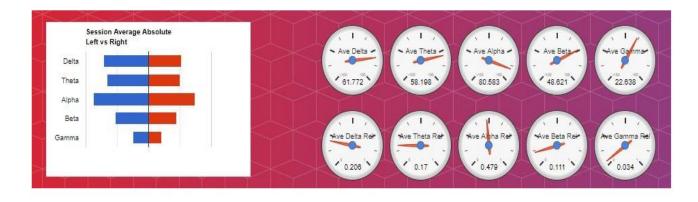


Figure 11: Example of Difference in the wavelength of right and left brain

Frequency Band	Frequency (Hz)	Signal Occurrence
Delta	Less than 4	Slow waves occurred in infant
Theta	4–7	Higher than delta, higher waves in young children and sleepiness in teenagers and adults
Alpha	8–15	Relaxed, closing the eyes
Beta	16–31	Energetic thinking, Attention, high alert, anxious
Gamma	More than 32	Combining two different sense like reading while writing
Mu	8–13	Motor neurons in rest state

Fig 12: EEG Signal ranges and behaviours (Source: Xin Wan et al., 2019) [18]

c) Heart Rate Variability (HRV) using SankatLife 2.0:

Heart rate is the number of heart beats per minute. Heart rate variability (HRV) is the fluctuation in the time intervals between adjacent heartbeats. A healthy heart is not a metronome [22]. An optimal level of HRV is associated with health and self-regulatory capacity, and adaptability or resilience.

SankatLife Platform is an authentic way to Measure ECG. HRV indicates stress levels and also, if measured regularly, helps to recover from it, hence maintain heart fitness. ECG is the most reliable way to measure HRV. SankatLife displays Real-Time Report, physical Stress and repeated displays of body stress and can point up to 30 irregularities in the body which can drastically affect heart health in the long run. The scale ranges from deeply relaxed, relaxed, mildly calm, slightly stressed, highly stressed. Figure 13 shows an example of the HRV measurement result using this instrument.

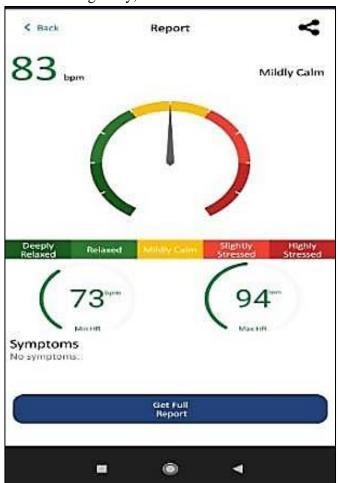


Figure 13: Example HRV of a sample

# Results

Data Analysis of this study using statistical methods has given the following results.

1. On an average, the BMI for females reduced by 2.7% and for males reduced by 2.3%. Using statistical software, an analysis of the weight data of all 39 participants shows that, in view of the p value of 0.000 being < 0.05 (for 95% confidence level) and t-value of 10.07, there is a significant difference in the result i.e., there is a significant difference in weight before and after the test.

Similarly, statistics of significance analysis of BMI shows that in view of the p value which is 0.000 being < 0.05 and t-value is 7.16, there is a significant difference in BMI before and after the test. (See Annexure 1 for details) 2(a). Analysis of stress values measured using GDV camera shows that, after the intervention, out of 8 males, 7 males showed reduction in the stress level.

In respect of 31 females, after the end of the programme, 15 females who showed reduction in the stress levels.

2(b). Analysis of Energy level changes using GDV camera has given the following result.

In respect of 8 males, the energy level increased by 5.12% and in respect of the 31 females, energy level increased by 4.78%, and all of them maintained optimal level both before and after the end of programme (see table 3b).

Table 3 (b): Analysis of ENERGY	measurements from GDV camera
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Gender	LOW	/EST	LOWER		OPTIMAL		HIGHT	ENED	HIGH	
	0 to 20		20 TO 40		40 TO 70		70 TO 90		90 TO 100	
	Before	After	Before	After	Before	After	Before	After	Before	After
Females	0	0	0	0	31	31	0	0	0	0
Males	0	0	0	0	8	8	0	0	0	0

3. Analysis of HRV data is presented in the Figure14 below.

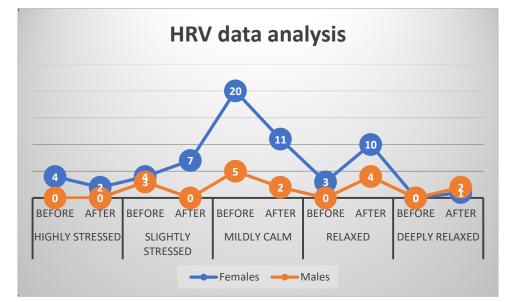
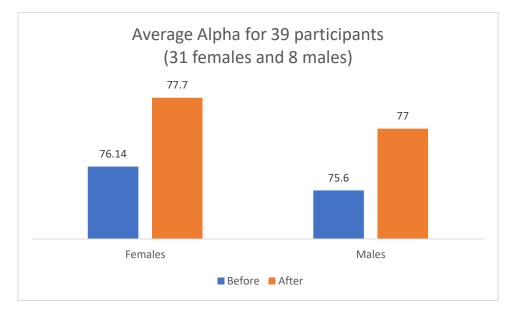


Fig 14: HRV data Analysis

It is observed from figure 14 that majority of the participants were found to be calmer and more relaxed after the end of the 1-week programme.



4. The results of Brainwave activity measurements for Alpha is shown below (Fig 15, and Table 4).

Figure 15: Analysis of Alpha data for 39 participants

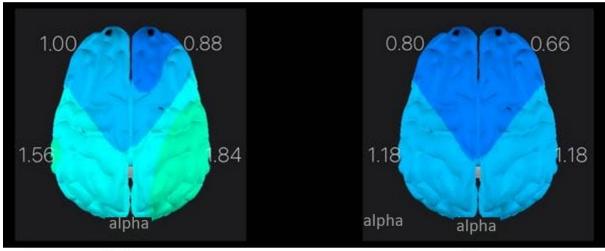
An analysis of the Muse brainwave data (Figures 15 and Table 4) shows that Alpha waves notably increased for males and females compared to the other waves like Delta, Theta and Beta waves. The Alpha wave average for females increased from 76.12 to 77.7 and for the males, it increased from 75.6 to 77. Table 4 shows

the ranking of the wavelengths in both females and males. Hence, when correlating the three waves (Alpha, Theta and Delta) with Beta, for females, it increased by 6.71% and for males it increased by 5.05%, which indicates increase in the calm and distress-free state in both males and females.

Table 4: Brainwave data Summary

Wave type	Ranking	Brain state	Ranking
	(men's)		(women's)
Alpha	1	Physically and mentally relaxed	1
8-15Hz			
Delta	2	Deep (dreamless) sleep, loss of	2
0.1-3 Hz		bodily awareness	
Theta	3	Meditation, intuition, memory	3
4-7 Hz			
Beta	4	Alertness, concentration,	4
15-30 Hz		cognition	

The human brain has two parts, the left brain and the right brain. Each part has different functions. The right brain is also called as the intuitive brain or the qualitative brain whereas the left brain is the logical brain or the analytical brain. Balance between the left and the right brain shows that the person has more balanced thinking and normally is seen in people who are regular meditators. Figure 16 shows a typical top-view representation of before and after Alpha wave imaging in the brain taken for one of the participants using OPTI Brain App by Muse device



Before

After

Figure 16 Top-view representation of the brain

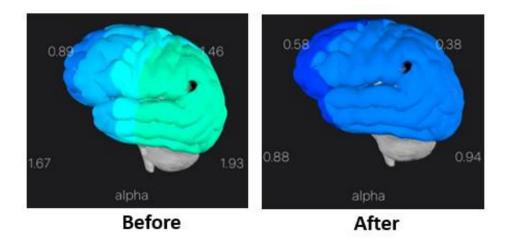


Figure 17 Side-view representation of left brain

Figure 17 shows a typical side-view representation of before and after Alpha wave imaging in the left brain taken for one of the participants using OPTI Brain App by Muse device

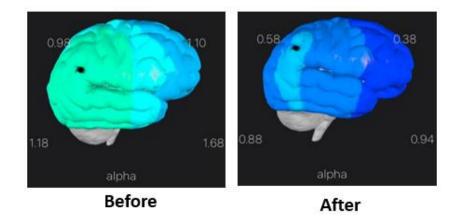


Figure 18 Side-view representation of the right brain

Figure 18 shows a typical side-view representation of before and after Alpha wave imaging in the **right** brain taken for one of the participants using OPTI Brain App by Muse device

For the 31 females, the average imbalance in Alpha wave between the left and the right brain reduced by 24.43%. For the 8 males, the average imbalance in Alpha wave between the left and the right brain reduced by 18.87%.

An individual's brain wave patterns are unique, and the best-known and most extensively studied rhythm of the human brain is the normal alpha rhythm. Alpha can be usually observed better in the posterior and occipital regions with typical amplitude of about 50  $\mu$ V (peak-peak). Alpha activity is induced by closing the eyes and by relaxation, and ended by eye opening or alerting by any mechanism (thinking, calculating). Most of the people are sensitive to the phenomenon of "eye closing", i.e., when they close their eyes their wave pattern significantly changes from beta into alpha waves [23].

# Discussion

A survey of a number of scientific studies of meditation by Andresen [24] revealed, among other positive outcomes, that meditation has been credited with reducing blood pressure, anxiety, addiction, and stress, while Relaxation Response has been shown to decrease sympathetic nervous system (SNS) activity, metabolism, pain, anxiety, depression, hostility, and stress. Andresen concludes that meditative practices have a role of behavioural medicine [24].

For humans, the normal range of BMI is 18.5 to 25, and a BMI of 25 or more indicates overweight with potential health risks. The results in this study show that the programme caused statistically significant weight and BMI reduction in one week of the programme, which is considered good for health and better wellbeing. This is an important parameter of physical health.

GDV results in this analysis show the state of the energy body which corresponds to the state of physical body in terms of raised energy levels compatible with energy demands of the physical body while performing programme activities. HRV results corelate to emotional calmness achieved. High Alpha states in brain waves indicate mental activity was more at rest. When both mental and emotional states are calmer and relaxed, that condition fosters spiritual growth. The investigators of this study consider that this is how the programme impacted on the participants.

Overall, for the 39 participants, the physical parameters like weight and BMI significant reduction showed after completion of the program. The emotional and mental parameters like stress and anxiety levels including the state of mind as measured using GDV, HRV and MUSE instruments showed a positive reduction. the analysis from all Hence. the instruments correlated with each other. Since the Bio-well GDV camera output gives a comprehensive and a comparative emotional and mental health analysis namely the analysis of the health status and energy levels of the various organs and systems of the body, yin and yang balance of all the organs, health aura analysis, chakra analysis etc it can be used for evaluating the stress, energy and vitality of a person to understand the overall well-being at physical, emotional and mental level.

Thus, the results of analysis show that the practice of Yoga Prana Vidya Arhat Yoga at ashram for one week has noteworthy improvement at physical, psychological dimensions and spiritual thereby increasing the overall wellness of the participants. YPV Arhat yoga schedule for one week including YPV healing sessions, sessions, purification meditation techniques, book study sessions etc along with exercises, right diet and the ashram environment form a holistic and integrated approach towards improving the physical, emotional, mental and spiritual aspects of a person. YPV Arhat yoga practice at ashram can not only be used to bring the health of a participant back to normal with

enhanced immunity, but also give a boost to their ability and strength multidimensionally.

This one-week study may appear to be a short duration experiment, yet the oneweek Arhat programme has demonstrated its impactfulness. Expert yoga practitioners are aware that some benefits may be noticed even after a single class, and yoga's most profound and lasting effects accrue with sustained efforts over several months to a year, or even more. Yoga processes may appear slow, yet can be powerful medicine [25] for sustainable results.

# **Conclusion and Recommendations**

The 1-week Arhat Yoga program in the controlled YPV Ashram living conditions helped the participants to stay up to date as a refresher course as per the given fixed schedule combined with the right diet. Given the ashram environment, the group effect, and direct supervision by the Arhat trainers, it becomes easier for the participants to bring the health back to normal at physical, emotional, mental and spiritual levels. The present study is an effort to bring Yoga Prana Vidya (YPV) practices closer to the scientific circles. There is a need for more relevant research by conducting long term impact studies and using RCT methodologies, and the main obstacle is lack of funding. Unlike the situation with pharmaceuticals, there is no private industry or governmental support with massive funding initiatives to support the large-scale scientific investigations of hatha yoga, which is the basis of YPV.

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#### **Conflicts of Interest**

None

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None

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# Annexure 1: Paired Sample statistics of Weight and BMI

Paired Sample Statistics								
		Ν	Mean	Std. Deviation	S.E Mean			
Pair 1	Before_Weight	39	65.58	13.85	2.22			
Pair 1	After_Weight	39	64.25	13.60	2.18			
Pair 2	Before_BMI	39	27.15	5.95	.95			
Pair 2	After_BMI	39	26.43	5.71	.92			

#### Paired Samples Correlations

T un eu sumpres correlations								
	Ν	Correlation	Sig.					
Before_Weight &After_Weight	39	0.998	0.000					
Before_BMI &After_BMI	39	0.995	0.000					
	Before_Weight &After_Weight	N Before_Weight &After_Weight 39	N         Correlation           Before_Weight &After_Weight         39         0.998					

	Paired Samples Test											
	Paired Differences											
			Std Doviation	S E Moon	95%Confidence Inte	rval of the Difference	t	dt	Sig. (2-tailed)			
		Mean Std .Deviation S.E		S.E Mean	Lower	Upper						
Pair 1	Before Weight -After_Weight	1.33	0.83	0.13	1.0/	1.6	10.0/	38	0.000			
Pair 2	Before_BMI -After_BMI	0.72	0.63	0.1	0.51	0.92	7.16	38	0.000			