

**EFFECT OF SKY PRACTICES ON WELLNESS AND
PERFORMANCE OF STUDENTS IN HIGHER EDUCATION**

*Thesis submitted to Bharathiar University, in partial fulfillment
of the requirements for the award of the degree of*

**DOCTOR OF PHILOSOPHY
IN
YOGA FOR HUMAN EXCELLENCE**



Submitted by

G. VIJAYA

(Reg. No: 2018PR2322)

Under the Guidance of

Dr. G. R. VALLIAMMAL, M.Com., M.B.A., M.A. (YHE)., Ph.D.,

Associate Professor

Department of Yoga for Human Excellence



WCSC – VISION SKY RESEARCH CENTRE

Vethathiri Maharishi Institute for Spiritual and Intuitional Education

(Approved Research Centre of Bharathiar University)

Temple of Consciousness, Arutperumjothi Nagar

ALIYAR, POLLACHI – 642 101

JULY – 2023

CHAPTER IV

APPLICATION OF SIMPLIFIED KUNDALINI YOGA PRACTICES TO THE STUDENTS

4.0 INTRODUCTION

From the qualitative study using the Five Step Discovery Process (FSDP), the following two key macro-level issues were identified as the key challenges for students in higher education - Difficulty faced in realizing academic and career goals, Difficulty in maintaining wellness, and Difficulty faced in having an active engagement.

The following are the key issues that impact ‘Difficulty in maintaining wellness at lower level of abstraction as articulated in the FSDP. These factors have potential impact on their engagement, which also contributes to realizing their academic goals.

- Lack of energy and physical fitness – (physical well-being)
- Ignorance of enablers for learning – (mental well-being)
- Lack of balanced approach to social relationships – (social well-being)

Key issues and challenges captured from the students in higher education from FGD include:

- Physical well-being: Lack of energy and physical fitness include:
 - Students feeling physically weak, de-energized by activities they dislike
 - They lack physical activities or exercises
 - Their eating habits does not support nutrition
 - Limited duration and quality of sleep
- Mental well-being level: Ignorance of enablers for learning
 - Not aware of enablers like attention/concentration and memory for learning
 - Demotivating comments and behaviour of friends
 - Stressed by high expectations, comparison to others

- Social well-being: Lack of balanced approach to relationship
 - Increasing influence of friends
 - Facing conflicts with friends
 - Addicted to mobile and social networks
 - Attracted to negative contagion

Accordingly, the scope of the research was limited to the improvement of wellness through the Simplified Kundalini Yoga practices and evaluating their effect on academic performance. The target group of students were trained for SKY practices. The students practised SKY on all the six days of the week. The identified dimensions of wellness were measured on the students at three stages – Pre, Mid and Post.

4.1 SIMPLIFIED KUNDALINI YOGA

Vethathiri Maharishi was born in 1911 in Guduvancheri village in Chengalpattu district. From a young age, he was curious to know the answers to the questions: - ‘What is joy?’, ‘Who I am?’, ‘Who is God?’, ‘What causes poverty?’. Owing to his learning from multiple gurus, philosophical analysis and meditation, he found clear and unambiguous answers to his fundamental questions in his thirty-fifth year and achieved enlightenment. He realized that absolute space is the truth and understood four states – matter, energy, mass and consciousness. The absolute space itself transformed itself as the fundamental energy particles and their collective forms became the physical body and the life force.

Vethathiri Maharishi learned, practised, evolved and systemized practices known as Simplified Kundalini Yoga (SKY) that are simple and are suited for any climatic conditions, for all the sects of human community irrespective of men, women, and children. Simplified Kundalini Yoga has been divided into four parts namely – Simplified Physical exercises, Kayakalpa, Meditation and Introspection. All the above practices enhance the wellbeing of an individual. SKY practices improve the circulation of blood, heat, air and bio-magnetism, which increases the muscle strength, respiratory strength, tones up the nerves, and rejuvenates the body and mind. The daily practice of Simplified Kundalini Yoga activates the energy levels of all the organs. The main purpose of SKY is to enhance

the life force so that the quality of life is enriched. The regular practice of SKY Yoga results in a healthy body and mind, alleviating one's sinful imprints and thus paves the way for liberation.

Man is an individual and individuals make the family and society. Nature is full of living and nonliving things which are seen around every human being. Life becomes pleasant to anybody when he lives in harmony with Nature. Yoga shows great ways to maintain harmony between body and soul, soul and mind, self and society and self and Nature. The SKY practices promote harmony and peace within one self, in the family, society and the whole world.

4.2 PRACTICES OF SIMPLIFIED KUNDALINI YOGA

Based on the benefits, the SKY practices chosen to improve the dimensions of wellness include – Simplified physical exercises, Kayakalpa, Meditation, and Introspection.

4.2.1 SIMPLIFIED PHYSICAL EXERCISES

Simplified Physical Exercise devised by Vethathiri Maharishi (Vision for Wisdom, 2012b) is suitable to all age groups. Regular practice of this exercise harmonizes the circulation of blood, heat and air in the body, which results in preventing and curing many physical problems. Few guidelines on the practice of simplified physical exercises include:

- Movements should always be smooth and graceful without any jerks.
- Practised in the morning on empty stomach
- Few sips of water should be taken after performing exercises
- Should concentrate on the movements of the body during the exercise with eyes closed except two of the exercises.

There are nine types of Simplified Physical Exercises (Vision for Wisdom, 2012d)
- Hand Exercise, Leg Exercise, Neuro-Muscular Breathing, Eye exercises Kapalabathi, Makarasana, Massage, Acu-pressure and Relaxation.

4.2.1.1. HAND EXERCISES

Hands are the most used part of the body for several tasks in our daily life. Hence, it is necessary to keep the hands, joints, and ligaments healthy. The hand exercises are easy and effective way to keep these parts healthy. These exercises are performed in standing posture. Hand exercises are done in seven postures involving raising, lowering, spreading, rotating, and stretching the arms and hands. These exercises remove the stiffness of the joints and make them flexible and improves lubrication.

4.2.1.2 LEG EXERCISE

Legs are the vital part of the body that supports mobility. Hence, it is necessary to keep the legs healthy, strong, and flexible. Leg exercise is a well-balanced workout that increases strength, speed, and stability. Leg exercises are done in seven postures in sitting posture Thandasana. Few postures like foot reflexology exercise activate vital internal organs like pituitary and pineal glands, heart, lungs, etc.

4.2.1.3 NEURO-MUSCULAR BREATHING

Neuro-muscular breathing is done with one hand placed on the navel and the other hand to close the ear in this exercise and deep breathing is done. This exercise increases the oxygen in the body, which makes us feel fresh and energetic throughout the day. Breathing exercises regulates the improper blood pressure, stress, anxiety, etc. This exercise is done in seven postures in Vajrasana and Sukasana positions.

4.2.1.4 EYE EXERCISE

The screen time of students is significantly high with mobile phone or computers. The energy level in the eyes gets drained resulting in eye-related problems. Eye problems can be cured by eye exercise and the energy level in the eyes can be increased by the regular practice. The eye exercises are done in seven postures in sitting position of Vajrasana with eyeballs moving up, down, sideways, encircle, near and far.

4.2.1.5 KAPALABATHI

Kapalabathi is one of the breathing exercises that regulates the life-force in the body resulting in increased energy level all over the body, especially in the head and respiratory system. This exercise should be done in normal posture (Sukasana) with eyes closed and

by tightening the sphincter muscles (Moolabandham) throughout the practice. Ten cycles of slow inhalation and exhalation with alternate nostrils and three cycles are done.

4.2.1.6 MAKARASANA

Makarasana is a simple spine twisting exercise done in two parts with the first done in Supine posture and second one in Prone posture. The whole body becomes active and flexible with Makarasana. The nerves connected to the spine are activated and strengthened. It also helps to reduce pot belly and cures menstrual and uterus problems. After finishing all the postures of Makarasana, body should be relaxed for a minute by keeping the hands and legs apart. Seven postures each are involved in both part 1 and part 2.

4.2.1.7 MASSAGE

Face massage gives good glow to the face by increasing the energy level in each part. Massage of the neck, chest, ears, temple points, both sides of the nose, and face improves their function, and biomagnetism reaches all parts of the body and strengthens them. This is done by lying down on the back, keeping the whole body relaxed, closing the eyes. It is done in both clock and anti-clockwise. These exercises are done in seven postures.

4.2.1.8 ACUPRESSURE

Acupressure stimulates the pressure points. Fourteen points in the body are identified as a major energy centres to cure many problems. By using right hand index finger and thumb finger, all the fourteen pressure points are activated. It regulates energy from head to toe. This exercise is performed by lying in supine posture.

4.2.1.9 RELAXATION

Relaxation is the final part of Simplified physical exercises. It is important to calm down the body and mind. Relaxation exercises can help to deal with daily stress as well as stress related to medical conditions like heart disease and pain. Relaxation exercise is done lying down in Supine posture by keeping the legs apart, about one hand half-inch part and hands apart facing upwards. Totally, ten parts of the body are relaxed starting from feet followed by Legs, Knees, Thighs, Hip, Stomach, Chest, Hands, Shoulders and Hands, Neck and Head.

The following Table – 4.2 shows different types and postures part of each type of the physical exercise.

TABLE 4.1
SIMPLIFIED PHYSICAL EXERCISES

	Simplified Physical exercises	1	2	3	4	5	6	7
1	Hand exercises							
2	Leg exercises							
3	Neuro-Muscular breathing							
4	Eye exercises							
5	Kapalabathi							
6A	Makarasana A							
6B	Makarasana B							
7	Massage							
8	Acupressure							
9	Relaxation							

4.2.1.10 BENEFITS OF SIMPLIFIED PHYSICAL EXERCISES

The benefits of simplified physical exercises (Vision for Wisdom, 2012b) are:

- Improves the circulation of blood, heat, air throughout the body resulting in freshness and energy levels.
- Increases the oxygenation to the body cells resulting in activation of body and mind as well as reduced laziness and lethargy.
- All the bone joints become flexible and well-lubricated and removes the joint stiffness.
- Eliminates accumulation of fluids in the body and improves the circulation of biomagnetism.
- By practice of foot reflexology, heart, lungs, shoulders, liver, pancreas, vertebral column, kidneys, and intestine are activated, which enhances its functions.
- Neuromuscular breathing exercise regulates the endocrine system and blood is oxygenized.
- Simplified physical exercise is most beneficial for adolescent students as it enhances grasping and memory power.
- Eye muscles are strengthened and toned further, reducing the eyesight. Regular practice can avoid the use of spectacles. Eyestrain and burning sensation could be cured.
- Brain cells are activated. Sinus and Migraine problems are cured by kapalabathi practice.
- By regular practice of Makarasana, spinal cord is strengthened and endocrine system functions well.
- Fourteen-point acupressure clears the short circuit of the electrical energy in the body.
- Foot reflexology activates the intestine resulting in improved appetite.
- Improves the quality of sleep in turn memory

- Bone joints become flexible
- Eye muscles are strengthened resulting in improve eyesight.
- Makarasana strengthens the endocrine system.
- Abdomen area is strengthened and regulates the irregular menstrual cycle.
- Produces the correct level of insulin by daily practice of simplified physical exercise.
- Tones facial nerves which in turn increases the glow in the face. Massaging the sides of the nose improves respiration.
- Brings down the blood pressure and it is curative and preventive for heart ailments if practised regularly.
- Daily practice of simplified kundalini yoga leads to good immunity level and enhances sound sleep.
- Avoids lethargy and keeps the body and mind active thereby, peace of mind prevails.
- Reduces the tension in the body and mind becomes calm and fresh.
- Nervous system is regulated and reduces stress.
- Specialty of Maharishi's exercise is that the sin imprints get eradicated.

4.2.2 KAYAKALPA

According to (Vision for Wisdom, 2012a), disease, ageing, and death are three factors that everyone has to meet in their life. Kayakalpa exercise rejuvenates the lifeforce and lifeforce particles. This exercise provides a healthy body and makes it fit and agile and helps longevity. The Kayakalpa exercise consists of Aswini Mudra and Ojas breath. Aswini Mudra rejuvenates and tones up the nervous system. As a result, nerves become reasonably stiff and keep the physique fit and enable normal functioning of inner organs of the body. Ojas breath exercise helps to crystallize the sexual vital fluid and takes up to its original production centre, the brain. Kayakalpa can be practised by people of either sex, who have attained puberty or the physical age of 14 years. This exercise is performed before food or three hours after food. This is done in the morning, evening, prior to eating and sleeping.

The benefits of Kayakalpa include:

- Life-force is rejuvenated resulting in youthfulness and self-esteem.
- Bio-magnetism is increased.
- Quantity and quality of the vital fluid gets intensified to rejuvenate the life force to maintain physical and mental health.
- By regular practice, it helps adolescents to keep the sensual pleasure under control resulting in focus on studies.
- Energy level can be maintained and balanced so that concentration and memory is retained.
- Mould their behaviour with moral values
- Nervous system gets strengthened.
- Children mould their behaviour with moral values.

4.2.3 MEDITATION

According to (Vision for Wisdom, 2012a), meditation refers to a family of self-regulation practices. It focuses on bringing about mental processes under greater voluntary control with the benefit of learning to stay calm, having better clarity and concentration ability. It brings mental frequency from Beta to Alpha, beta, and Delta leading to self-realization and consciousness of the mind. Siddhas practised a particular yoga activity in which their thoughts got unified in one focus point, i.e., soul and continued this penance for years. Through this, they brought up the Kundalini power from Mooladhara chakra to higher chakras. This was the toughest of yogas with several side effects and it took several years to learn it. Vethathri Maharishi has simplified it through his practice and research without compromising the qualitative benefits and offered following meditations.

4.2.3.1 AGNA MEDITATION

Agna meditation is the first step in Kundalini Yoga, where the Master, making use of his own energies raises the Kundalini energy or life force of the aspirant from the Mooladhara to the Agna Chakra, situated between the eyebrows where pituitary gland is located. This meditation on Agna chakra is performed for a duration of 20 minutes.

4.2.3.2 SHANTHI MEDITATION

Mooladhara Chakra is located at the base of the spine, one inch above the anus. Meditation on the Mooladhara is also called as Shanthi Yoga. Agna meditation can lead to increase of energy beyond manageable levels, hence it is brought back to its original position by performing Shanthi meditation. The meditation on Mooladhara chakra is performed for a duration of 20 minutes.

4.2.3.3 THURIYA MEDITATION

Meditating on Sahasrara is called as Thuriya Meditation. The master, who initiated the aspirant to Agna Meditation, now takes him further into Thuriya level by raising the energy to the Sahasrara Chakra through transfer of the divine energy from his own eyes. Thuriya meditation, eradicates Sanchita Karma purifying the soul. Thuriya meditation is performed for ten minutes on Agna Chakra and ten minutes on Sahasrara chakra.

4.2.3.4 THURIYATHEETHA MEDITATION

Thuriyatheetha meditation is the union of the Jeeva and Brahma, leading to salvation. The mind transforms into anything it thinks about, i.e., the mind assumes the shape and quality of the object. Thus, when the mind thinks of the Brahman, it transforms into the Brahman, to attain Samadhi levels. During Agna meditation, the mind perceives the life energy, but during Thuriya meditation, it stops its functions to become one with the life energy. Thuriyatheetha meditation is the union of the Jeeva and Brahma, leading to salvation. The mind transforms into anything it thinks about, i.e. the mind assumes the shape and quality of the object. Thus, when the mind thinks of the Brahman, it transforms into the Brahman, to attain Samadhi. The sequence of the points and duration for this meditation include: Agna, 5min, Thuriya 5 min, Dwadasangam 5 min, Moon 15 sec, Sun 15 sec, Universal field 4 min, Static state 5 min, Sun 15 sec, Moon 15 sec, Dwadasangam 15 sec, Thuriyam 30 sec.

4.2.3.5 PANCHENDRIYA MEDITATION

This meditation is done fixing the mind on the five senses – Skin (Feeling of pressure/touch), Tongue (Taste), Nose (Smell), Eyes (Light), and Ears (Sound). Biomagnetism is transformed into pressure, light, taste, and smell through these senses. Senses are the exit

routes to the bio magnetic wave force particles. Bio magnetic force gets spent, where one's mind gets fixed. When one fixes his mind for meditation through the spending of biomagnetism, it is under control and is it is meant to control the senses. The meditation is performed for a total duration of 20 minutes.

4.2.3.6 PANCHA BOOTHA – NAVAGRAHA MEDITATION

Pancha Bootha meditation is done by fixing the mind on five physical elements – land, water, fire, air and akash. When doing so, the bio magnetic force generated from those elements unite with one's bio magnetic force and strengthen the body and mind. Navagraha meditation involves focusing the mind on the nine planets namely Sun, Mercury, Venus, Moon, Mars, Jupiter, Saturn, Raghu and Kethu. The magnetic forces from the planets may have some adverse impact on the human being. This meditation will reduce the impact of effect from the planets. This meditation is done with 2 minutes on each of the planet.

4.2.3.7 NINE CENTRE MEDITATION

During this meditation, the life force is taken up from Mooladhar to Agna Chakra by passing through the Swathistana, Manipuraha, Anahata, Visukthi. Mooladhar relates to sexual gland, Swadhistana relates to Adrenal gland and the element 'water', Maipuraha relates to Pancreas and the element 'fire', Anahata relates to Thymus Gland and the element 'air', Visukthi relates to Thyroid and Para thyroid gland and the element 'akash', Agna relates to Pituitary gland, Thuria relates to Pineal gland. The eight centre is the Universal field and when we focus on this, the mind expands and spread to entire universe. The ninth centre - the Absolute space is the Divinity, a powerful resource, eternal wisdom and omnipotent. It makes everything function in a pattern, precision, and regularity. The mind reaches the Delta wave and floats without barriers and obstruction. The duration of meditation in each of the centres is as follows: Mooladharam - 2 Min, Swadhishtanam - 1 Min, Manipurakam - 2 Min, Anahatham - 2 Min, Visuddhi - 2 Min, Agna - 2 Min, Thuriyam - 2 Min, Dwadasangam (1 feet above Thuriyam) - 30 Sec, Moon – 15 Sec, Sun – 15 Sec, Universal field – 4 Min, Absolute space – 5 Min, and then reverse on the same sequence with 15 Sec, and end with Thuriyam.

4.2.3.8 NITHIYANANDA MEDITATION

During this meditation, breathing is done slowly by simultaneously visualizing the flow of the energy from Mooladhara to the Thuriyam with breathing in. Then, the breath is released slowly spreading the energy all over the body. This is repeated for 10 minutes and then the energy around the body is observed for 10 minutes prior to ending the meditation.

4.2.3.9 DIVINE MEDITATION

This meditation involves ‘merging one’s mind in unison with the Absolute Space and its self-transformation into the universe and living beings’. During this meditation, one expands their mind and merges it with boundless eternal space. One visualizes the self-transformation of absolute space into formative dust particles, Akash, five elements, the universe made of these elements, and living being from one-sensed animal to six-sensed human being. Such vision elevates the human mind from the petty level of attachment to religion, politics or personal possessions to blossom into the finer feeling of Love and Compassion. This is perfection.

4.2.3.10 BENEFITS OF MEDITATION

The benefits of the meditation include:

- Deep level of concentration, sharpness, focus, mental peace is obtained.
- Mental frequency is reduced to alpha, theta and delta levels.
- Ability to think and analyse improves, resulting in sharper executive functioning.
- Hatred and adamant behaviour will be controlled, resulting in their social relationships.
- Attachment with conscious mind is strengthened.
- Not easily disturbed by other distractors
- Attachment towards unwanted material things will dissolve and conscious mind is strengthened.
- Sense organs will have the ability to regulate the limit and method by considering past experience, present situation and future circumstance.

- Greediness is vanished and desires are normalized and mind develops the ability to be in the virtuous path.
- By regular practice of meditation, the mind becomes stronger and subtler.
- Eradication of worries, analysis of thoughts becomes clearer by constant practice.
- Stress could be reduced.
- Outside forces / emotions cannot disturb easily.
- Wise thoughts that reflect from the meditation practitioner, reflects in the minds of many.
- Impurities in the body and soul are purified and self-realization takes place
- Body temperature is reduced by Shanthi Yoga, which in turn reduces body pain, fever, indigestion, constipation, etc.
- Excess heat can be removed from the body, which creates physical and mental sickness.
- Nervous system is activated, improves overall health and increases immunity.

4.2.4 INTROSPECTION

Moral education is a must for everyone. Good conduct should become a good habit in one's life. Learning about the existence of God and its transformation into all matter seen around the universe must be an essential part of Education. Through introspection, one is able to differentiate the good and bad. Good qualities can be identified and continued, whereas bad qualities which causes hurt to self and others can be eliminated. Through introspection, thoughts can be purified, thereby improving the quality of thoughts. Introspection is the process of removing unwanted weeds in our mind. Introspection along with meditation is more effective. So, one has to start the introspection soon after the meditation and auto-suggestions. Towards this, Vethathri Maharishi developed five practices of introspection – Analysis of thoughts, Moralization of desires, Neutralization of anger, Eradication of worries. Worry annihilation, Who am I (Vision for Wisdom, 2012c), (Vision for Wisdom, 2015).

4.2.4.1 ANALYSIS OF THOUGHTS

Mind functions as thoughts, words, and deeds. ‘Thoughts’ lead to words and deeds. As long as the thoughts do not result in harm to self or others, thoughts are considered to be good. On the contrary, if it harms self and others, it becomes ‘bad thoughts. Hence, one has to analyse the thoughts before execution. Also, one needs to train oneself to retain better thoughts and drive away bad thoughts. When a thought gets processed, one should try to find out the ‘why’ of the ‘thought’ and the results of the thought. If a person is able to judge one’s own thoughts and their effects (good or bad), he or she will be able to proceed or stop them at the start. There are six causes for thoughts to arise – Needs, Habits, Environment, Imposition by others, Heredity, and Divinity. This practice involves recording careful observation of the thoughts, and identification of the causes, and effects of such thoughts as good or bad. This exercise will help regulation of thoughts by taking the decision on whether to retain or discard depending upon the effects of the thoughts.

4.2.4.2 MORALIZATION OF DESIRES

The mind is capable of generating thousands of thoughts and many of them could be desires. However, the body is the source to act and realize the desires. When doing so, the acts dictated by the mind should have social acceptance and should be in unison with the law of nature. The realization of the mind’s thinking cannot always be possible when one feels that all his desires do not materialize and as a result is feeling diffident and incapacitated. Also, unfulfilled desires cause anxiety and frustration. It is possible to fulfil all the desires provided they are well within the social norms and the laws of nature. Hence, one has to analyse them thoroughly using the following steps to moralize the desires. By regular practice of desire moralization, self-confidence, tolerance, love and affection will grow.

4.2.4.3 NEUTRALIZATION OF ANGER

Anger is a great destructive force at all levels. Within the family, it spoils peace. Society gets divided due to this. Countries wage wars. Everyone experiences anger and would have suffered from anger differently. One should desist from anger even when one has a right to get angry for a valid reason and should develop tolerance. This is achieved by the practice of neutralization of anger. One has to analyse the anger by reflecting on the

persons with whom one gets anger, relationship, reason and one's role in the situation and past occurrence of anger with the person. This is repeated for every person identified. Thus, we can neutralize anger with anyone.

4.2.4.4 ERADICATION OF WORRY

Worry is an illusion or wrong calculation. Worry happens due to a gap between the need and source, expectations and happening or difference of opinion. It manifests as a lack of intelligence to tackle a problem or fear due to imagining things that are not true. Worrying will not solve the problems. One needs to equip themselves to deal with it. This is handled by reflecting on worries listed, classifying them into worries to be experienced, postponed, ignored and acted upon immediately.

4.2.4.5 WHO AM I ?

(Vethathiri Maharishi, 2016) states that the question “Who am I?” would naturally bring forth the answer that the “I” is a combination of a body, a mind and a soul. The question would now be whether it is the body, the mind or the soul that constitutes the “I” or is the “I” a combination of all the three. Truth always is simple, and ignorance creates confusion. Truth, approached in all simplicity can be understood easily. The system of Simplified Kundalini Yoga has made it simple and available to the aspirants in their own places. Through the practice of this simplified system, it is possible for every aspirant to find an answer to the vexing question. During this practice, we come to understand the concept of God, the Divine State, Truth and the Consciousness. Knowing the Consciousness is the same as knowing the Divine State or the origin of the Universe. One of the greatest truths propounded by the sages is that God or Brahman is the Consciousness, present in all the things in the Universe. It is present in even the inanimate objects because Consciousness is not the sensing faculty alone. It existed even before the advent of the sense organs, right from the stage of the Paramanu. Every energy particle has a specific size and speed, governed by the principles of Pattern, Precision and Regularity. Everything in the Universe, being the result of an association of the Paramanu, is controlled by the principles of Pattern, Precision and Regularity. Such understanding is provided by the practice ‘Who I am?’ along with Divine meditation.

4.2.4.6 APPLICATION OF INTROSPECTION

Introspection is started with being the Thuria state and analyse why too much of thoughts are coming along with its causes, why more desires are happening along with the reasons, why anger is happening along with what is causing anger, why a man is getting worried along with causes of the worries. After the analysis with reasons and causes, try and minimize the thoughts, moralize the desire, neutralize the anger, eradicate the worries by taking oath and autosuggestion. This is the best way to do the introspection which is called as ‘Agathaivu’ which makes man perfect.

4.2.4.7 BENEFITS OF INTROSPECTION

The following are the benefits of Introspection:

- Improves the ability to analysis of thoughts prior to making decisions.
- Unwanted thoughts are removed, and the mind gets purified.
- Leads to realize with self, resulting in harmony with society and nature.
- Helps to control anger, resulting in accepting others.
- Mind expands to the maximum and gets purified as the unwanted thoughts are removed.
- Impurities in the life-force are removed thereby, love and compassion blossoms.
- Physical and mental health will enhance.
- Good relationship can be maintained with all, and peace of mind prevails.
- Energy can be saved to the maximum extent, increases self-confidence and courage.
- Life-force will be preserved.
- Introspection leads to spiritual growth and realizing self.

4.3 EFFECT OF SKY PRACTICES ON THE DIMENSIONS OF WELLNESS

The review of literature along with the experiments carried out by other researchers, SKY practices such as Simplified physical exercises, Kayakalpa, Meditation and Introspection offer the potential to improve wellness at Physical, Mental and Social levels. These benefits can address the challenges of the students in higher education captured the FGD.

- Physical wellness: Physique in terms of BMI, Flexibility, Muscle strength, Lower pulse rate, Balanced blood pressure, Circulation of blood, heat and air.
- Mental wellness: Coping with stress & anxiety, Internal locus of control, Attention, Memory, Executive function, Overall wellbeing, Creativity.
- Social wellness: Psychological wellbeing, Social skills, Relationship, Perception of social support.
- Improved academic performance.

Based on the above study, the SKY practices were mapped to the benefits relating to the dimension of wellness relevant to the challenges of the students in higher education as a matrix as shown in following Table – 4.2.

TABLE 4.2
SKY PRACTICES VS DIMENSIONS OF WELLNESS

Practices ---			Simplified Physical Exercises	Kayakalpa	Meditation	Introspection
#	Indicator	Dimensions				
1	Physical	Body composition BMI	xx			
		Flexibility	xx			
		Cardiovascular fitness	xx		x	
		Muscular endurance	xx	xx		
		Sleep			xx	
2	Mental	Attention		x	xx	
		Memory	x	xx	xx	
		Executive function	x	xx	xx	
3	Social	Emotional regulation	x	x	xx	xx
		General health	x	x	x	x
		Happiness and wellbeing	x	xx	x	xx
		Psychological wellbeing		xx		

The matrix shows the relationship between the dimensions of wellness and the practices that have the potential to impact the dimensions. Based on the potential benefits of the practice on the specific dimension, symbol ‘xx’ is marked where the potential impact could be greater, and ‘x’ is marked where the potential impact could be moderate.

Simplified physical exercises have the potential to impact the dimensions of wellness at physical level – Body composition, Flexibility, Cardiovascular fitness, and Muscular endurance at a greater level. This is influenced by the nine types of Simplified Physical Exercises - Hand Exercise, Leg Exercise, Neuro-Muscular Breathing, Eye exercises Kapalabathi, Makarasana, Massage, Acupressure and Relaxation.

Kayakalpa practice have the potential to impact the dimensions of wellness at Physical level – Muscular endurance, Mental level – Memory and Executive function and Social level – Happiness and Wellbeing, and Psychological wellbeing with Aswini Mudra rejuvenating and toning up the nervous system to make it reasonably stiff and keep the physique fit and enable normal functioning of inner organs of the body. Ojas breath exercise helps to crystallize the sexual vital fluid and takes it up to its original production centre, the brain.

Meditation practice has the potential to impact the dimensions of wellness at Physical level – sleep, Mental level – Attention, Executive function, Memory and Social level – Emotional regulation. Meditation focuses on bringing about mental processes under greater voluntary control with the benefit of learning to stay calm, having better clarity and concentration ability. It brings mental frequency from Beta to Alpha, Theta, and Delta leading to self-realization and consciousness of the mind.

Introspection practice has the potential to impact the dimensions of wellness at Social level – Emotional regulation, General health and happiness. Through introspection, one can differentiate the good and bad. Good qualities can be identified and continued, whereas, bad qualities, which causes hurt to self and others can be eliminated. Through introspection, thoughts can be purified thereby, improving the quality of thoughts. Introspection is the process of removing unwanted weeds in our mind.

4.4 SAMPLE GROUP

The sample group consists of 98 students, 69 boys and 29 girls, who pursued 3-year Diploma in Mechanical Engineering programme at Nachimuthu Polytechnic College as part of an industry-sponsored collaborative programme. The new approach of the ‘outcome-based curriculum’ was adopted for holistic development of students to be ready for industry and life.

The mission of the programme is to ‘develop aspirational, highly engaged, competent (relevant for career and life), industry-ready and role-ready engineers to excel in engineering, manufacturing best-in-class automotive products and in their lives. Towards this, the college established programme outcomes for technical skills and professional & life skills. Professional and life skills are stated as below:

At the end of the Diploma in Mechanical Engineering, the students will

- **Develop and maintain positive health - physical, mental and social well-being**
- Demonstrate professional and ethical responsibility in communication.
- Articulate and engage in the pursuit of career and life goals.
- Plan and work according to time.
- Communicate effectively through written, oral, and visual means.
- Work effectively in teams and manage interpersonal relationships.
- Take ownership of continuous learning

As one of the outcomes is on focused on developing and maintaining positive health at physical, mental, and social level, SKY practice is considered for improving them.

4.5 SKY TRAINING AND PRACTICE FOR THE SAMPLE GROUP

SKY training was organized for the students at WCSC, Aliyar. The students attended the foundation course prior to start of the first year. During each semester, they attended the courses at Aliyar as shown in Table – 4.3.

TABLE 4.3**SKY TRAINING ATTENDED BY THE STUDENTS**

Semester	Course	Practices
1	Foundation Course	Simplified Physical exercises, Kayakalpa, Agna, Thuria, Shanthi meditations, Analysis of thoughts, Moralization of desires
2	Introspection 1	Panchendriya, Panchabootha-Navagraha meditation
3	Introspection 2	Thuriyatheetha meditation, Light gazing,
4	Introspection 3	Nine centre meditation, Mirror gazing, Neutralization of anger, Eradication of worries
5	Introspection 4	Nithiyananda meditation,
6	Brahma Gnanam	Who am I?, Divine meditation

The residential programme at Aliyar was effective and induced the students to engage in learning the Yoga practice well and experience a conducive environment.

After the foundation course in the first year, the college has provided a yoga hall and a yoga teacher on campus. The students have practised SKY that they have learned over six semesters. For each semester, a detailed schedule was prepared as shown based on the new practices learnt. The students practised six days a week for one hour in the morning starting from 5 am.

The schedule prepared for SKY practice by the students is shown in the following Table – 4.4.

TABLE 4.4**SKY PRACTICE SCHEDULE OF THE STUDENTS**

Day	Practices				Duration
1	Kayakalpa (5min)	Physical exercises (20min) Hand exercises, Leg exercises Neuro-Muscular breathing Eye exercises Kapalapathi	Meditation One of the meditations each day	Introspection One of the Introspection practices each day	60 min
2	Kayakalpa (5Min)	Makarasana 1&2 Body massage 14 points acupressure			60 min
3	Kayakalpa (5 min)	Relaxation			60 min

As the time available was one hour each day, following guidelines were used:

- Kayakalpa was done daily.
- Physical exercises were distributed over three days.
- Each day, one of the meditations learnt in a particular semester was practised.
- Each day, one of the introspections was discussed.

4.6 MEASUREMENT OF DIMENSIONS OF WELLNESS

Based on the review of literature and discussion with experts from Svyasa, dimensions at physical, mental, and social levels aligned to the challenges faced by the students and methods/tools for measurement were established. Based on the feasibility to measure for three years, the dimensions are shown in the following Table – 4.5.

TABLE 4.5**SUMMARY OF WELLNESS DIMENSIONS MEASURED ON THE STUDENTS**

#	Dimension	Unit of measure	Measurement method
Physical wellbeing			
1	Body Composition	BMI (kg/m ²)	Electronic weighing scale Height measurement
Mental wellbeing			
1	Attention	Score	Digit letter substitution test
		Score	Six-letter cancellation task
		Total time	Digit vigilance test
2	Executive function	Score	Stroop word test
		Score	Color Stroop test
		Score	Word Color Stroop test
		Score	Digit symbol substitution test
3	Memory	Score	Digit Forward
		Score	Digit Backward
Social wellbeing			
1	Emotional regulation	Score	CERQ
2	General health	Score	General health questionnaire
3	Happiness and wellbeing	Score	Short well-being scale
		Score	Short depression happiness scale
4	Psychological wellbeing	Score	Barret Impulsive scale

The measurement methods are described as follows:

BODY MASS INDEX (BMI)

The height is measured using linear scale fixed to a wall in inches or centimetres and weight is measured using a weighing scale in pounds or kilograms. Then, BMI is calculated using the formula $BMI = \text{Weight} / (\text{Height})^2$.

DIGIT LETTER SUBSTITUTION TEST

This is a psychological assessment tool that is primarily utilized for evaluating psychomotor performance. This instrument delves into the domain of cognitive processing, response speed, and the ability to maintain focus and concentration over a set duration. The DLST comprises an instructional portion and a working section. The instructional component provides a specific row of six distinct digit-letter pairs. The working section, on the other hand, displays these pairs, arranged randomly across eight rows and twelve columns, which the participant must work through.

SIX LETTER CANCELLATION TASK

This is an established method for evaluating several cognitive processes, including sustained and selective attention, psychomotor speed, visual searching, and motor coordination. The task involves a worksheet, where the participant is presented with six specific capital letters, which are the targets. These target letters are embedded within a larger array of letters, organized into 22 rows and 14 columns. Participants must quickly and accurately identify and mark these target letters within the given 90 seconds.

DIGIT VIGILANCE TEST

This is a well-established psychometric tool designed to evaluate sustained attention. This test comprises a two-page sheet filled with rows of random digits ranging from 1 to 9. Each sheet contains 50 rows, with each row featuring 30 digits, presented in a 12-point font size. Participants are instructed to identify and cancel out all instances of two specific target digits, in this case, "6" and "9", as quickly as possible. They are explicitly advised against cancelling other digits and missing any instances of the target digits. The primary index of sustained attention in the DVT is the total time taken to complete the test.

STROOP COLOR-WORD TEST

This is a quintessential cognitive assessment tool utilized to measure cognitive processing capabilities and executive functioning. The test is structured into three subtests, each lasting for a duration of 45 seconds: word, color, and color-word. Each of these subtests assesses different elements of cognitive processing, thus offering a multifaceted view of the individual's cognitive abilities.

DIGIT SYMBOL SUBSTITUTION TEST

This is a psychological assessment tool primarily used to evaluate a range of cognitive abilities, including scanning, matching, switching, and writing tasks. This test has been established as a valuable instrument to reflect multiple higher cognitive functions, such as perception, encoding, retrieval processes, transformation of information stored in active memory, and decision making. The DSST, therefore, serves as a comprehensive cognitive assessment tool, capable of tapping into various cognitive components. The rapid, timed nature of the task also introduces an element of cognitive stress, further allowing for the assessment of an individual's cognitive adaptability and resilience.

DIGIT FORWARD AND BACKWARD TASK

This is a specialized cognitive assessment tool that is designed to evaluate attention, immediate memory span, and working memory capabilities. It is an intricate task that comprises two distinct sections - digit forward and digit backward, each assessing different facets of cognitive function. In the digit forward portion of the task, participants are verbally presented with a series of digits. Following this, they are asked to recall and recite the sequence in the order in which it was presented. This segment of the task primarily assesses immediate memory span and attention. In the digit backward section, participants are challenged to recall the sequence in reverse order. This section evaluates working memory and cognitive flexibility as it requires the manipulation of stored information.

COGNITIVE EMOTION REGULATION QUESTIONNAIRE

This is designed to measure cognitive coping mechanisms that individuals use in response to stressful events. Comprising of 36 items, the CERQ spans across nine distinct subscales: Self-blame, Acceptance, Rumination, Positive Refocusing, Refocus on

Planning, Positive Reappraisal, Putting into Perspective, Catastrophizing, and Other blame. Importantly, the use of these strategies, as evaluated by the CERQ, has been found to correlate significantly with emotional disorders, depression, and anxiety.

GENERAL HEALTH QUESTIONNAIRE

This is self-administered questionnaire, designed to detect psychiatric morbidity, consists of 28 items divided into four subscales: somatic symptoms, anxiety/insomnia signs, social dysfunction, and depression. Each item is rated on a 4-point Likert scale, ranging from 0 to 3. This questionnaire, which provides insights into recent mental status, is instrumental in identifying potential psychiatric disturbances.

THE SHORT WARWICK EDINBURGH MENTAL WELLBEING SCALE

This is a compact, yet robust, tool designed to gauge an individual's mental wellbeing. Each of these items is assessed on a 5-point Likert-style scale, with the response options ranging from 'None of the time' to 'All of the time.' This score can provide valuable insights into an individual's mental state, providing a quantitative measure of their mental wellbeing. It is an invaluable tool in mental health research, clinical settings, and wellbeing-focused programs.

SHORT DEPRESSION – HAPPINESS SCALE:

This is a psychometric tool developed to measure both the absence of depressive states and the presence of happiness. This scale features six items divided into two subsets. Three items gauge happiness and depressive states. By capturing both ends of the emotional spectrum, the SDHS provides a more comprehensive picture of an individual's emotional state, going beyond traditional measures that focus solely on depressive symptoms.

THE BARRATT IMPULSIVENESS SCALE:

This scale is designed to evaluate impulsivity and impulse control disorders. It has proven to be particularly effective in identifying higher levels of impulsivity in various populations, including college students and individuals with substance abuse issues, indicating its applicability across diverse demographics. This scale is divided into three subscales, each corresponding to a different facet of impulsivity: Motor Impulsiveness, Non-Planning Impulsiveness, and Attentional Impulsiveness.

4.7 CONCLUSION

Based on the challenges of the students in higher education, the relevant dimensions of physical, mental, and social wellness and the measurement methods were determined. The sample group has gone through the measurements at the beginning of first year, second year and third year. The data of all the students of the sample group was collected and organized in Excel sheet. The students went thorough periodical training and regular practice of Simplified Kundalini Yoga training like Simplified Physical Exercises, KayaKalpa, Meditation, and Introspection for six days in a week in the morning hours, 5am - 6am for three years. On this basis, proper statistical tools were used to get quantitative data which are collected for Pre, Mid and Post periods. The data on their academic performance during all the three years was also collected for all the students. This was useful for further analysis to validate the hypothesis.