Application of Yoga in Adolescent/Teens to increase Resilience & Improve Emotional Well-Being with Emphasis on Yogic Principles - A Study

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ABSTRACT

Aim: Adolescence is a transition period from childhood to adulthood and this tender age between the ages of 12 - 19 years is usually riddled with uncertainties and difficulties as the children are faced with peer pressures, social media, career choices and parents' expectations. According to UNICEF and other research publications, ensuring emotional well-being and resilience in adolescents' formative years can foster a better transition from childhood to adulthood. This is the time when our youth is most prone to emotional imbalances. According to the World Health Organization (WHO) by 2020, 50% of the youth will be under-served. World bodies like the United Nations estimates that at least 1 billion school going children have been affected globally by the closure of schools due to the Covid pandemic. The mental health and wellbeing of at least 332 million children are at risk, warns UNICEF. So there is an urgent need to take appropriate steps so that adolescents can attain normal, healthy growth and become productive and positive contributors to society. Yoga is proposed to offer methods for regulation and resilience through the integrated practices of yama and niyama (ethical intentional principals) asana (physical exercise), pranayama (breathing techniques) and meditation. This study aims to introduce and establish the seeds of Yoga in young minds, and how the practice of simple Yoga techniques can help manage stress, maintain emotional well-being and build resilience.

Methodology: The approach incorporates methods on how to engage children and gradually introduce the Yogic practices and convince them to use Yoga to manage stress, emotional well-being and build resilience to maintain a healthy body and mind. The methodology inculcates our age-old wisdom from classical texts like Patanjali Yoga Sutras, Yoga Vasishta and Bhagavad Gita, and combined with contemporary techniques to suit the current generation of youngsters. Classical texts were thoroughly investigated for references to yogic principles apt for today's modern world and these are verified on a group of young children using Hypothesis testing and statistical analysis.

Conclusion: Youth is a valuable asset for any country. The consequences of not addressing the emotional well-being and mental health of adolescence extends into adulthood, thereby impairing both physical and mental health and limiting opportunities to lead fulfilling lives as adults. Scientific research studies all over the world have revealed that following yogic practices can play an important role to manage stress, emotional well-being and thereby improve resilience. The methodology used showed positive results with a group of 50+ children to introduce yoga and help maintain lower stress and emotional wellbeing, and boost immunity and build resilience. Highly resilient people are flexible, adapt to new circumstances quickly and thrive in constant change.

Key Words: Emotional Well-Being, Resilience, Yoga, Teens, Adolescence

INTRODUCTION

“A brave, frank, clean-hearted, courageous and aspiring youth is the only foundation on which the future nation can be built.
1.1 Yoga, Principles & Practices:

Yoga:
The word Yoga comes from the Sanskrit word “yuj”, which means to attach, join, harness, yoke, and signifies union of the individual and universal consciousness. It is one of the most precious gifts given by the ancient Indian sages to humankind. In the last few decades, the word “Yoga” has been used to refer to practice of performing physical postures or Asanas, with the goal of physical fitness. However in actuality, it is a “complete system” that aligns our mind, body and spirit, and enhances mental clarity. It is an effective tool to reduce stress and improve motor functions, which, in turn, helps keep various health problems at bay. (Effects of Yoga on Stress Management in Healthy Adults, Tsunaka M Tsang HW Chan EP Cheung WM, Alternative Therapies in Health and Medicine, 01 Jan 2011.)

References to Yoga are also available in ancient Vedic and Upanishadic heritage, Buddhist and Jain traditions, Darshanas, Epics of Mahabharata including Bhagavad Gita, Ramayana, and Yoga Vasistha. Maharishi Patanjali systematized and codified the then existing Yogic practices, its meaning and its related knowledge through Patanjali’s Yoga Sutras. After Patanjali, many sages and Yoga masters contributed greatly for the preservation and development of the field through well documented practices and literature.

The 10 Yogic Principles & Practices for young minds:

1. Yoga is gaining control of mind or mastery over mind. “Yogas chitta vritti nirodha:” Patanjali Yoga Sutras 1.2. By controlling the mind we reach our original state. Control involves two aspects: a power to concentrate on any desired subject or object and a capacity to remain calm and quiet at all times. Nature of mind is always volatile, we call it the monkey mind, (Buddhist term meaning unsettled mind). Practice of Yoga, makes one to get control of thoughts and helps to achieve mastery over mind.

2. Patanjali Maharshi has articulated Yoga principles very well in his Yoga Sutras and defined Ashtanga Yoga as an integrated approach to yoga practice. Ashtanga yoga is a technique for the development of physical, mental, intellectual, spiritual faculties in man. This is a science of total personality development. The Practice of one limb influences the practice of another limb. Patanjali goes further to say each of these values, if practiced in letter and spirit, is capable of bringing forth the hidden potentialities.
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Yamas - Social Conducts Create a setting of living in harmony in order to get better along with one self as well as with others. Foundations of Social Behavior. Ahimsa-Nonviolence, Satya – Truthfulness, Asteya – Non stealing all three levels body, speech and mind. Brahmacharya – Mode of behavior as ideal as brahman, Aparigraha - Non-Stealing


Asanas - Asanas in particular postures or poses for sitting. Mean comfortable posture for long time Asana gives stability in both physical and mental level Asanas results in overall physical and emotional stability

Pranayama- Yogic breathing patterns related to the emotional aspects of ones personality Psychophysiological balance. influences our moods and emotions.

Pratyahara - when senses are brought under control instead of craving for material desires.

Dharana - (Concentration) is holding the mind focused on an object, either in the body, or outside the body and keeps itself in that state.

Dhyana - is the method of stilling the mind on a single thought stream. An unbroken flow of knowledge to that object is Dhyana.

Samadhi – The Universal Consciousness Yoga is proposed to offer methods for regulation and resilience through the integrated practices of yama and niyama (ethical intentional principles) asana (phy exercise), pranayama breathing techniques and meditation (Streeter et al, 2012., gard et al 2014., schmalzl et al., 2015)

Yoga is a multifaceted spiritual tool with enhanced health and well-being as one of its positive effects, something more than just a physical exercise. (International review of Psychiatry, Ramajayam Govindaraj, Sneha Karmani, Shiarama Varambally National Institute of Mental Health April 2016)

Ashtanga yoga practiced in holistic spirit nourish all kosas holistically leading to holistic personality. (Dr.Ananda Balayogi Bhavanani International center for yoga education and research (ICYER) January 2012)

1. Yoga understands the influence of the mind on the body as well as that of the body on the mind. This is the principle of adhi-vyadhi elucidated in the Yoga Vasishta more than 5000 years ago. The disturbance occurs in the mental body as a result of interaction in the world which leads to further disturbance in the vital body and ultimately ends up manifesting itself in the physical body. (Dr. Padmasri Hr. Nagender, Swami Vivekananda Anusandhana Samsthana (S-VYASA))

2. There are several other yogic principles that can be practically applicable. If we observe the history of wars and the current scenario of human suffering, they are the results of state of mind. Pancha kleshas Patanjali Yogas sutras 2.3 the afflictions Avidya (Ignorance), Asmita (Ego), Raga (attachment), Dvesha (Hatred), Abhinivesa (fear of death) are the windows to the state of mind which are responsible for all the pain and suffering.

3. Sage Patanjali has given a beautiful formula to make decisions resulting in happiness, in the form of Chitta prasadanam Patanjali Yoga Sutras 1.33. which can be directly translated as “Blissful Mind”. Four primary virtues
are maitri (friendship), karuna (compassion), mudita (joy), and upeksha (indifference). These virtues are fundamental for our mental peace when we deal with people and situations in everyday life.

4. Promoting healthy and positive Pratipaksha (opposite) Bhavana means (emotion). Pratipaksha Bhavana Patanjali Yoga Sutras 2.33. Thoughts are essential to reach a balanced state of mind and personality. The actual meaning of Pratipaksha Bhavana is cultivating positive thought every time a negative thought enters the mind. It is a beautiful and challenging mind practice. This powerful technique has the potential to shift the energies and align them in such a way that in every situation only goodness and positivity is read and picked up.

Life lessons from Bhagavad Gita for young minds.

5. Samatvam yoga ucyate (B. G. 2.48) The statement says that equanimity is yoga. This indicates that yoga enables a state of both physical homeostasis and mental equanimity. Yoga is a state of harmony where the body’s physiological functions are maintained and the mind remains in moderation, not overly reacting to either aversion or desire.

6. The Bhagavad Gita also enumerates mental health in great detail. A mentally sound and healthy individual is referred to as a sthitaprajna, which means a man of steady wisdom. The qualities of a sthitaprajna are elaborated in depth throughout the second chapter called as the Sankhya yoga. They include tranquility, situational stability, emotional stability, free from desires, complete self-control and oneness with brahman or knowledge of the ultimate.

7. Yogah Karmasu Kausalam (B. G. 2.50) Yoga is excellence at work. This verse advises us to perform our allocated duty in an excellent manner. Kaushalam signifies doing work with devotion and without attachment i.e. without becoming a workaholic.

8. Yuktahara Viharasya Yuktacaste karmasu, Yuktaswapnobhodhasya Yoga Bhavati dukhaha (B. G. 6.17) Moderation in habits of eating, sleeping, working and recreation one can lead complete healthy life.

Hence, the Yogic way of life Ahara, vihara, achara, vichara, vyavahara. Ahara – Yoga emphasizes a balanced diet and moderation in diet. the right quantity, quality, attitude at the time of eating all that matters. Vihara – It is an activity or hobby that involves complete participation. Achara – the daily routine / discipline. Vichara – the thought process. positive thinking. Vyavahara - Behavior is the action result of ahara vihara achara vichara. The yogic way of life, making changes in the diet, lifestyle one can lead a healthy life. This will eventually lead to the promotion of positive health. (YOGA: THE IDEAL WAY OF LIFE Yogacharya Dr Ananda Balayogi Bhavanani Chairman: International Centre for Yoga Education and Research (ICYER), Ananda Ashram, Pondicherry, India. www.icyer.com.)

1.4 Yoga and Psychology

Yoga and modern psychology go hand in hand in enhancing human personality and phenomenal quality of life in a positive direction. (What is Yoga Psychology and Where Does It Stand in Contemporary Psychology? Psychology and Developing Societies - Volume 33, Number 2, Sep 01, 2021, Anand Paranjpe Volume 33, Issue 2)

Effect of yoga practices on personality traits intelligence, creativity, interests, attitudes, aptitudes, abilities etc can be measured and understood through psychological means and methods. Empirical aspects of yoga can only be studied through psychology. Yoga and psychology are applied and developmental in
nature. The primary psychological attributes Resilience, mindfulness and Self-regulation.

Many yoga texts make reference to the importance of mental health and the use of specific techniques in the treatment of mental disorders. Different concepts utilized in modern psychology may not come with contemporary ideas, instead, they seem to share a common root with ancient wisdom. We can correlate modern techniques used in psychology and psychiatry with yogic practices, in the treatment of mental disorders. Contemplative research found out that modern interventions in psychology might not come from modern concepts after all, but share great similarity with ancient yogic knowledge, giving us the opportunity to integrate the psychological wisdom of both East and West. (M. Balasubramaniam et al. Yoga on our minds: a systematic review of yoga for neuropsychiatric disorders Front. Psychiatry (2013)

1.5 Importance of Emotional Well-being in Society

Mental health is an integral and essential component of health. Happiness comes from within and does not depend on material gain or physical enjoyment (Nagarathna 1990). That is why mental health is a very important component of total health. Disturbances of mental health can alter neuro musculo glandular mechanisms in the body, which disturbs autonomic balance and hence vital regulatory systems like cardiovascular system and endocrine system. (WHO Nov 2019)

The WHO constitution states: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. An important implication of this definition is that mental health is more than just the absence of mental disorders or disabilities. Mental health is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.

Key facts on mental health by WHO - Sept 28th, 2020)

- One in six people are aged 10-19 years.
- Mental health conditions account for 16% of the global burden of disease and injury in people aged 10-19 years.
- Half of all mental health conditions start by 14 years of age but most cases are undetected and untreated
- Globally, depression is one of the leading causes of illness and disability among adolescents.
- Suicide is the third leading cause of death in 15-19-year-olds.
- The consequences of not addressing adolescent mental health conditions extend to adulthood, impairing both physical and mental health and limiting opportunities to lead fulfilling lives as adults.

Key Facts - Unicef - World's leading source of data on children

Ensuring mental health and well-being in an adolescent’s formative years can foster a better transition from childhood to adulthood.

1.6 Adolescent and Concurrent Challenges

“Adolescence is a tough time for parents and children alike. It is a time between childhood and maturity, between parental protection and personal responsibility, between life stage- managed by grown-ups and life privately held.”

- Anna Quindle

Adolescence refers to the period of transition from childhood to adulthood. It extends roughly from age 12 to the late teens, when physical growth is nearly complete. During this period the young person becomes sexually mature and establishes an identity as an individual apart from the family. Puberty the period of sexual maturation that transforms as child into a biologically mature adult takes place over a period of 4 to 5 years.
It starts with a period of very rapid physical adolescent growth spurt accompanied by gradual development of secondary gender characteristics. Brain undergoes a great deal of development and change in adolescence. In early adolescence the areas of the brain involved in emotion, reward and motivation eg: (The amygdala and ventral Striatum) becomes more reactive to emotional and social stimuli and to rewards (Ernst et al 2006 Guyer et al 2008). This along with pubertal hormonal changes may account for greater fluctuations in daily emotional states, more extreme emotional experiences both positive and negative. Stronger biases towards emotional stimuli in young adolescents compared with children and adults Larsson & Richards, 1994: Quevedo et al 2009: Silk et al 2009). In Contrast frontal areas of the brain involved in cognitive control of impulses and behaviors develop later in adolescence (casey et al, 2010).

The Covid-19 pandemic situation, along with the era of competition, pressurizes adolescents to excel in every activity to get an edge and stand out in this cut throat competition. In this context, David Elkind, professor at Tufts University and author of “The Hurried Child: Growing Up Too Fast, Too Soon” (1988) very rightly says, “Our society is compressing childhood more and more to where children are not children for very long. Children are under tremendous pressure to ‘be mature’ and to grow up”. With this augmented pressure and “maturity”, parent–adolescent conflict tends to increase during this growth period of adolescents, partly due to the parents having high expectations from their children who are not able to meet their expectations well.

Physical changes - Physical changes happen due to change in the teenager’s hormone levels. Girls may start to feel conscious about their figure and change of voice and appearance of facial hair in boys. Acne is one of the major problems. Teenagers may have self-esteem or confidence issues. The feelings of inferiority or superiority often arise from their appearance, and acceptance of their body – skin color, beauty, and figure.

Hormones - Affect your teenager not only physically but also emotionally. They tend to feel overly emotional. Just about anything and everything can make them happy, excited, mad or angry. Adolescent girls are vulnerable to crying. Mood swings are common among teenage boys and girls.
Social relationships - Peers become extremely important in adolescence. During adolescence time spent with peers and friends increases and elevated positive moods are experienced in these contexts. In contrast, time spent with parents decreases. Adolescents typically pull away from their parents in an attempt to forge their own individual identity and many parents are distressed by this withdrawal (Silverberg and Steinberg, 1990).

Adolescents and the Internet - Susan Nolen-Hoeksema, Yale University. The Internet is a fixture in the lives of adolescents in most nations. Around 95 percent use the internet daily, surfing the web, trading emails, and creating their own websites (Lenhart et al. 2005). Many benefits to the internet but Internet can both be dangerous and detrimental in teens life and a benefit and force for positive change. Social Media challenges - Children are constantly being exposed to state of art technology which has mushroomed over in the past decade. Computers and mobile have become mandatory resources after school assignments, online classes, due to pandemic, sleep has been compromised as well due to extensive use of technology. Social media is not only a distraction to teenagers who have become addicted to checking their news feeds, but that it can lead to psychological and health issues as well (Krakowsky, 2014). Other major psychological consequences are internet addiction, Facebook depression, sleep deprivation, insomnia and restlessness. Rosen (2011) argues that daily overuse of media and technology has a negative impact on the health of all children, preteens and teenagers by making them more prone to anxiety, depression, and other psychological disorders, as well as by making them more susceptible to future health. The more young adults use Facebook, the worse they feel moment-to-moment and the less they feel satisfied with their lives overall (Kross, Verduyn, et al. 2013).

According to Vidyarthi (2011) in the last ten years the average attention span has dropped from 12 minutes to a staggeringly short 5 minutes which is a really drastic change.

Educational challenges - Pressure to perform academically and obtain college admission can be stressful and make your teenager moody. Juggling school work, extra-curricular activities (must for college admissions). - Poor performance in academics and low IQ can also demotivate them.

Substance Abuse - Teenagers are vulnerable and can be easily swayed to the wrong side. Substance abuse is one of the biggest problems that parents of adolescents around the world have Nicole. L, David Walker, Joseph Caster, Edward Levin Duke University 2014.

Unhealthy Eating - Teenagers have a hectic schedule as they hop from one activity to another with little time to eat or rest properly. Unhealthy eating habits prevent them from getting the nutrition they need. Unhealthy eating habits and a less active lifestyle could also lead to obesity.

Nuclear Families - This contemporary issue was not the case in the olden days where parents were able to give time to their children and guide them through their developmental stages, or in the collectivistic societies where children are better taken care of, if not by the parents, then by the other family members or the society in general.

1.7 COVID – 19 Pandemic and effect on teens

The COVID-19 pandemic’s physical restrictions and social distancing measures have affected each and every domain of life. Although the number of children and adolescents affected by the disease is small, the disease and the containment measures such as social distancing, school closure, and isolation have negatively impacted the mental health and well-being of children and adolescents (Department of Psychiatry Lucknow Shweta Singh, Debina roy, Krittika sinha, Gunjan Joshi. August 2020)
The lost year - It's up to the adults to mentor their children who have been robbed of a year and more of academic and psychological development by modeling resilience and crisis management- April 25th – 2021....Deccan Chronicle The mental health and wellbeing of at least 332 million children are at risk, warns UNICEF. The United Nations estimates that at least 1 billion learners have been affected globally by the closure of schools due to pandemic. Almost everyone has waded through hardships this past year and current second wave of the pandemic. Adolescents are among the worst affected. It is not only academics that they have lost but also mental health. Being robbed of an entire year at this stage of their lives is producing a mental health crisis that some professionals describe as unprecedented.

When adults are in mode of stress, children watch and they are learning to imitate them because that is the way they are programmed to learn, says Dr C Manjula Rao a top clinical psychologist at Apollo city. Parents are going through much already to top it all. Added to this the current second wave has added fuel to the already existing problem. Unfortunately, this venting takes the form of outbursts over reacting to situations adopting a problem centric approach resorting to anger or creating an environment of misery. This is proving vicious for the kids and teenager minds, psychologies cautions.

Kids won't learn as much from their books or exams as from us, because we as parents influence them through vicarious learning of how to deal with the crisis. If adults guide their children, they need to get themselves out of crisis mode experts feel teenagers and tweeps will be fine if adults model resilience. Human beings come with an inbuilt ability to withstand adversity and bounce back from it and that ability is called resilience, Says Dr Manjula.

1.8 Statement of the Problem:
The purpose of study was to find out the effect of yogic practices on resilience and emotional wellbeing of adolescence during pandemic.

1.9 Hypothesis:
It was hypothesized that there might have been a significant improvement in resilience and emotional wellbeing among adolescents who practiced selected yoga asanas during Covid-19 pandemic situations.

1.10 Objectives:
- Provide brief and practical overview, on Adolescent teens concurrent problems and how yoga might be used as tool in the adolescent emotional wellbeing during pandemic and beyond.
- Emphasizing the importance of introducing the seed of yoga in young minds.
- Review the effect of current pandemic situation on resilience and emotional wellbeing on teens’ health and suggestive of benefits to using yoga for the improvement and maintenance

1.11 Significance of the Study
The significance of the study is based on the fact that the effect of yogic practices on adolescent people. may provide good and harmonious living of the people in society.

1.12 Delimitations
The research study was conducted on 40 students ( Boys and Girls) at Yoga village, Visakhapatnam as part of children's yoga camp after initial ground work done by the researcher from the beginning of the pandemic on children living at various locations of Visakhapatnam. Subjects selected for the study pertained to the age groups 12 – 18yrs. Research experiment only confirms basic yoga asanas and pranayama.

1.13 Limitations
Research study was limited in the following respects and those limitations would be taken into consideration while interpreting the data. Some of it is external factors affecting it. Emotions will not be taken into
consideration. Participants' subjects’ day to day works were not considered. Due to the pandemic situation the sessions were conducted through online zoom sessions. Primarily Subjects belonged to 12 to 18 yrs of age.

1.14 Definition of Terms
In this study yoga refers to performing simple yogic exercises, Asanas, breathing regulation (pranayama), Mantra yoga, Guided Meditation, for 60 minutes daily able to improve the resilience level.

Resilience and Emotional Well Being In this study resilience refers to positive adaptation of an individual from negative circumstances. Adolescents In this study adolescents are refers to the School children aged between 12-18 years who are studying in various schools in Visakhapatnam.

METHODOLOGY
This chapter deals with the description of the methods and different steps used for collecting and organizing data for the investigation. It includes the description of the research approach, the research design, study setting, sample size, data collection procedure and the plan for data analysis in the study. This present study was done to evaluate the effectiveness of yoga on resilience among adolescents belonging to various schools in Visakhapatnam.

The purpose of the study is to find out the effect of selected yoga asanas and pranayamas on adolescent well-being during the Covid-19 pandemic. To achieve this Fifty (50) students over a period of 6 weeks, from various schools in Visakhapatnam were considered.

RESEARCH APPROACH:
Quantitative research approach was used in this study

RESEARCH DESIGN:
The research design used in this study was Quasi experimental

RESEARCH VARIABLES:
Variables are an attribute that varies, that is, takes on different values. Variables are characters that can have more than one value. The categories of variables discussed in this study were independent variable: Yoga Dependent variable: Resilience level among Adolescents.

SETTINGS OF THE STUDY:
The study was conducted for the adolescents 13 to 18 yrs belonging to various schools in Visakhapatnam. The Classes were conducted online in Zoom due to the current pandemic situation.

SAMPLE SIZE:
The sample size consists of 50 adolescents. The 50 subjects were respectively assigned to pre and post yoga questionnaire tests.

DESCRIPTION OF THE TOOL:
Questionnaires used included questions on lifestyle, sleep patterns, eating patterns, posture, mood swings. Emotional wellbeing was taken while the subject was in sitting position.

Questionnaire Score 1 = Most of the time • Score 2 = some time • Score 3 = never

DATA COLLECTION PROCEDURE:
The data collection was done for the period of 6 weeks from 10.05.21 to 21.06.2021 The study was conducted at Yoga Village, Beach Road, Visakhapatnam. The objectives of the study were explained to the assigned professor, who were present on that day. Questionnaire sent to the subjects and assured confidentiality of the data collected. The pretest was conducted with 18 items on Subjects for this study. The group of 50 subjects performed yoga during the time of 6.00 pm-7.00 pm 6 days a week. The post test was conducted on all the 50 subjects a day after the 6 weeks of yoga. The total period of yoga intervention was 60 minutes per day, as follows:

The steps of Yoga intervention were:

- Yoga Immersion talk – 5 minutes
- Sukshavyayayam - 5 minutes
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- Surya Namaskars – 5 minutes
- Asanas - 15 minutes
- Relaxation with breath regulation – 5 minutes
- Pranayama - 10 minutes
- Mantra yoga- 5 minutes
- Visualization - 2 minutes
- Yogic principles - 10 minutes
- Question and Answer sessions

Yoga Immersion Talk:
Includes warm up with subjects on general yoga discussion activities. Bond with the subjects and make them more receptive to the 6 weeks sessions. Enhances the understanding of ancient yogic principles.

Sukshma Vyayama:
Done to loosen all joints. Primary emphasis on eye, neck and shoulder rotations

Netra sanchalana:
Up and down viewing, Side viewing, Rotational Viewing, far near viewing

Greeva sanchalana:
Forward backward flexion, lateral flexion, circular movements

Skanda chakra:
Shoulder rotation

Suryanamaskar:
12 steps of surya namaskar were practiced with breath awareness for 6-12 repetitions.

Asanas: Tadasana, Vrikshasana, Trikonasana, Vakrasana, Janushirshhasana Paschimottanasana, Ushtrasana, Marjariasana, Salabhasana, Dhanurasana Naukasana, Matsyasana

Every asana was explained using 8 steps demonstration method designed by Kaivalyadhama, Pune, India

Step 1 - Name of Asana, meaning, justification, category, type,
Step 2 - Demonstration Silent demonstration with count and with breath
Step 3 - Asana Advantage and Contraindications
Step 4 - Individual Practice
Step 5 - Group Practice
Step 6 - Doubts
Step 7 - Key points
Step 8 - Whole class practice

Relaxation with Breath Regulation:
It is essential to practice yoga asanas with breath awareness to reap the benefits of Yoga. This is accomplished by easy-to-understand concepts like “Smell the roses and blow the candle combined with diaphragmatic breathing. Other techniques like Box Breathing

Pranayama: Bhramari, Anilom vinilom, Nadi Shodhan Pranayama.

Meditation & Om Chanting:
A sequence of Om Chanting for 9 Times with consciousness traveling internally. Break down the 'Om' syllable to 'A-A-U-U-M', followed by silence and back again. Say the first two syllables with your mouth opened widely and the next two by pursing your lips together

Visualizations:
The subjects are subjected to visualize a serene and calm place like a waterfall, a park or their favorite object to empty the mind.

Yogic Principles Discussed various yogic principles listed above in the form of short stories with practical applications and benefits.

Question and Answer Sessions:
The subjects were engaged in a discussion on next day practice sessions, which would help with the thoughts of the inquisitive young minds. Used the techniques to convince the subjects to make yoga as part of their everyday routine.

ANALYSIS AND INTERPRETATION OF THE DATA
Data collected as per procedure mentioned in the previous chapter was suggested to statistical analysis of “Student t – test of analysis” for significance The analysis and interpretation of data collected from 50 adolescents for assessing the effectiveness of yoga on level of resilience. It is based on the
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data collected from the subjects. The data were organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics.

**Hypothesis Testing:**
The questionnaire was designed to capture the pre-Yoga Camp “resilience & well-being” score of the subjects. The mean “resilience & well-being” score statistic ($\mu$) of the pre-Yoga camp is observed to be 35.50. The same questionnaire was administered to the subjects after the 6 weeks Yoga Camp, and the mean “resilience & well-being” score ($\mu$) is observed to be 38.95. Based on the Sample Size, and the distribution of the data, a one-tailed Student t-test is administered to statistically verify the Null Hypothesis as stated below.

It is hypothesized that the practice of selected Yoga asanas and Pranayama by teens and adolescents (aged 12-18yrs) during Covid-19 pandemic results in decreasing anxiety levels and help with their resilience and overall emotional well-being.

Null Hypothesis $H_0: \mu \geq 36$
Alternate Hypothesis $H_a: \mu < 36$
Sample Size (n) $= 40$
Sample Std. Dev. (s) $= 5$
Post-Yoga Camp Sample Mean ($\bar{X}$) = 38.68
Significance Level ($\alpha$) = 5% Significance level
Confidence Level (c) $= 95\%$ (1 - $\alpha$)

**RESULTS AND DISCUSSIONS**
The test is conducted at a Confidence level of 95%, (i.e., 5% Significance level), and based on the Statistical Analysis, it is observed that the data fails to reject the Null Hypothesis, thereby supporting the research claim that the practice of selected Yoga asanas and Pranayama by teens and adolescents (aged 12-18yrs) during Covid-19 pandemic results in decreasing anxiety levels and help with their resilience and overall emotional well-being.

**DISCUSSIONS**
Yoga can be a valuable tool for children. The value of Yoga practice in adults has been recognized globally. Across urban areas in recent times, yoga training centers, practice centers, private agencies, and individuals for both profit and non-profit sectors have opened studios and organized sessions in various forms and approaches. However, there has been no wide spread introduction of Yoga in govt. and private schools and are not keeping up with the trend. Once the seed of yoga is inculcated in children, they can enjoy learning yoga, sustain it in practice, and use it in their daily life as they grow into adulthood. They are well trained and prepared to use yoga in any kind of emotional and social stress situations. Yoga can also transform people to be socially sensitive; hence, it may increase the likelihood of children and young people engaging in civic activities and shaping a better society.
SUMMARY
We have addressed some stressors to which children are exposed in their everyday lives in modern societies, including rising expectations and children’s extensive media usage. We have claimed that children and young people need yoga for stress management, self-regulation, and healthy development. It has been observed that the practice of selected Yoga asanas and Pranayama by teens and adolescents (aged 12-18yrs) along with yogic principles during Covid-19 pandemic results in decreasing anxiety levels and help with their resilience and overall emotional well-being. It has been observed that worldwide research on the effects of yoga on children and young people’s mental health and well-being is at a very early stage. When introducing yoga to children, we think it is important to keep in mind what Dr. Sat Bir Singh Khalsa – “a pioneer in teaching yoga to children suggests: children’s yoga is not a simplified version of yoga for adults, Children's Yoga has its unique practice and teaching methods. Dr. Khalsa also emphasizes that it is important to meet children where they are, and that they experience yoga as fun activity.”

CONCLUSION
World needs leaders, and leaders are people who lead by example, capable of making balanced decisions during uncertain and chaotic situations. So, how do you produce future world leaders? Strong childhood provides strong leaders. And Yoga is the solution. Yoga for Personality Development at all levels Physical, Mental, Emotional, Intellectual and spiritual. Yoga appears to be simply a stretching activity, but the variety and sequencing of postures coupled with the practice of deep breathing creates an extremely diverse and effective method of enhancing overall emotional wellbeing. A simple yogic routine introduces students to a more conscious and empowered way of life. We have to ensure our children that they have to evolve as fighters in any disaster and come out as winners. Yoga plays an important role in health promotion among adolescents. Although the Primary focus of parents is on education, incorporating a mandatory simple yoga routine plays a vital role in the emotional well-being of adolescents. Identifying high risk behaviors is essential to achieving positive health outcomes. Thus, screening for such behaviors and resiliency in the adolescent is critical. For adolescents with low levels of resilience, simple yogic practices would help to increase their level of resilience after yoga intervention when compared with pre-test.

RECOMMENDATIONS
It is proposed that yoga be implemented in schools and colleges as a mandatory subject. Yoga makes a difference in children and adolescents’ life because it helps them calm themselves. It is an invaluable tool for children. The significant effect of yoga on emotional regulation, self-esteem, and feelings of adolescents calls for the attention of the policy makers for initiating yoga at the school levels through standardized yoga curriculum to inspire the students to learn and practice yoga at an early age. The seed of yoga is recommended to be put in those young minds and now is the right time to inculcate that.

Declaration by Authors
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Conflict of Interest: The authors declare no conflict of interest.

REFERENCES
1. Atkinson. Introduction to psychology (14th Ed.). India: Thomson business information publishers
2. Clifford T.Morgan, Introduction to psychology, New Delhi
3. Daniel J, Seyga and Teena payne bryson, The whole brain child, New york times
4. Elizabeth B.Hurlock, Developmental psychology, New Delhi Hill publishing company.
5. George Feuerstein, The yoga tradition, New Delhi
Application of yoga in adolescent/teens to increase resilience & improve emotional well-being with emphasis on yogic principles - a study

6. Dr Ganguly and Dr ML Gharote, Teaching methods for yogic practices Kaivalyadham Pune
7. Iyengar, B. K. S, Light on the Yoga Sutras of Patanjali, India, New Delhi
8. Iyengar B.K.S, Light on Pranayama
10. Jacob W Getzels and philip Jackson, Creativity and Intelligence, New York USA
11. DR Joseph Murphy, The power of your subconscious mind, New Delhi
13. Juran, Joseph M., Gryna, Frank M. Quality Planning & Analysis
15. Dr. H. R. Nagendra, Dr. R. Nagarathna, Yoga for Depression, Bengaluru
20. Dr. Sri nidhi K Parthasarathi and Dr. H. R. Nagendra, Gita @ work spaces, Bengaluru
21. Swami Satyananda Saraswati, Four chapters of freedom, Bihar School of Yoga Bihar
22. S.K Mangal, General Psychology, New Delhi
23. Sat Bhir Singh Kalsa, Your Brain on Yoga, Harvard medical school
24. Dr S.R Vaze Swadhyaya and yoga therapy, Kaivalyadham Pune
25. Prof R.Bhogal, Yoga and mental health and beyond, Kaivalyadham Pune
26. Swami Kuvalayananda Asanas, Kaivalyadham Pune, India
27. DR Satish Pathak Yoga as Therapy Kaivalyadham Pune India
29. Sean Cove, Seven Habits of Highly effective people, Touch book stones

JOURNALS
30. Journal of Yoga and Physical therapy
31. Journal of Positive Psychology
32. Journal of alternative and complementary medicine
33. Indian Journal of psychiatry
34. International Journal of Pediatrics
35. International Journal of Yoga Therapy
36. Indian journal of Ancient Medicine and Yoga
37. International Journal of Yoga

NET REFERENCES
38. www.pubmed.com
39. www.googlescholar.com
40. www.nimhans.com
41. www.who.com
42. www.unicef.com
43. www.unitednations.com
44. www.ncbi.com www
45. www.frontiersin.org
47. https://allegiance-educare.in/blog/teenage-problems-and-solutions

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APPENDIX

Pre-Yoga Camp Questionnaire
Teens/Adolescents well being scale for young adults
(aged 12 – 18yrs)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Questions</th>
<th>Most of the Time</th>
<th>Sometime</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I look forward to things as much as I used to</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2</td>
<td>I sleep very well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3</td>
<td>I feel like crying</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4</td>
<td>I like going out</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5</td>
<td>I feel restless and distracted</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6</td>
<td>I get stomach ache and cramps</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>7</td>
<td>I have lots of energy</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>8</td>
<td>I enjoy my food</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>9</td>
<td>I feel confident about myself</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10</td>
<td>I can focus easily and complete tasks on time</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>11</td>
<td>I am good at things I do</td>
<td>☐</td>
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<tr>
<td>12</td>
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<tr>
<td>14</td>
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<td>☐</td>
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<tr>
<td>15</td>
<td>I feel very lonely</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>16</td>
<td>I am easily cheered up</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>17</td>
<td>I feel so sad, I can hardly bear it</td>
<td>☐</td>
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<tr>
<td>18</td>
<td>I feel very bored</td>
<td>☐</td>
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Post-Yoga Camp Questionnaire
Teens/Adolescents well being scale for young adults
(aged 12 – 18yrs)

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