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The Impact of Yoga on School Children: A Thematic Review

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Abstract: Introduction- In the fast-moving world, there is less importance given in society to health issues. Everyone has a dream of disease-free life to spread happiness in their personal and professional life. Today, many health problems are emerging, especially in children, impacting their growth and development.
Purpose-The purpose of the paper is to study the significance of Yoga practice in school-going children on different parameters of health like physical health, physiological health, and psychological health.
Methodology- The paper is a thematic paper based on the practical experience of Yoga. This includes an overview of the basic concepts of Yoga scriptures in the light of holistic health.
Findings- Regular practice of Yoga makes Children an essential tool for creating awareness of knowledge of the laws of Nature which will help them to turn out more efficient and solid within a short span of time.
Keywords: Yoga, Children, School, Health, Awareness.

I. INTRODUCTION

There is a concept of observing the positivity in every activity that exists in Indian culture. All this begins from the upbringing received from the parents and society up to the school life, college life, and university life. The lifestyle of humans depends on 'Guidance' towards education, health, career, society, and livelihood[1]; literally, guidance means 'to direct someone', 'to point out the target', and 'to show the path of life'. It is the assistance or help provided by a more experienced person to a less experienced person to solve certain major problems of the individual (less experienced) i.e. social, educational, economic, emotional, vocational, mental, spiritual, etc. It is similar to a flow of water into the ocean after heavy rains via rivers.

Yoga is the garland having flowers like happiness, satisfaction, peace, and many more[2]; which always begins with a higher amount of discipline and freshens up the holistic health. Especially in children, if such seed is planted in their school life it can enhance the feeling for the daily practice of Yoga in the whole life. Yoga can easily reduce the health problems like Illness, and disability whether it is chronic or severe along with these cognitive powers helps in dissolving the tough phases of life.

In school-going children, there is a common problem that emerges which is popularly known as Poor physical health[3]; the workload and time restriction of the typical overachiever students leave relatively little time for sleep and diet. In fact, sleep deficiency is common among students, with many of them sleeping less than six hours per night. Excessively busy children tend to suffer from poor eating habits, as well. If anyone doesn't have the time to sit down to three solid meals per day, then such students may have to grab food in a hurry, and in most cases, such diets are full of Lipids (fats) and Carbohydrates (sugar). Especially, Teenagers especially need sufficient sleep and nourishment to stay physically and mentally strong, so if anyone has too much to do, it may end up sacrificing their precious health. Along with this concern, Poor mental health in children is becoming a major threat to future generations[4]. There are lots of causes of Physical, mental, and psychological problems which include huge school demands, frustrations, taking on too many activities with having too high expectations, and many more. The desire to please others, as well as the culture's clear emphasis on success, is creating a generation of workaholics who are exhausting themselves mentally and emotionally[5].

II. YOGA: PRACTICAL AND THEORETICAL APPROACH

In the era of the evidence-based scientific environment of the academic world, there is a high need for practical and theoretical knowledge of Yoga. Childhood is the main phase of life in which training and learning provide for the growth and development of every kind of knowledge. There are different kinds of childhood illnesses and injuries like Hyperthyroidism, Whooping Cough, Chickenpox, Measles, and different viral & bacterial infection that may cause mental retardation if they have not treated properly.

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An infection of the membrane covering the brain (Meningitis) or an inflammation of the brain itself (Encephalitis) causes swelling that in turn may cause brain damage and mental retardation. Traumatic brain injury caused by a blow or a violent shake to the head may also cause brain damage and mental retardation in children. Health is regarded as wealth. Holistic health i.e., preventive and curative is the goal of health guidance. The health guidance is a cooperative effort of Yoga teachers, Researchers, Doctors, Counselors, Psychologists, Teachers, Students, and Parents. For promoting preventive care, the conditions of the school hostel, and canteen needs to be checked. Similarly, health education through formal classes and information is essential in school education stages. In the present day, the concern of health guidance also pertains to guidance in different kinds of diseases and disorders.

A. Yoga for Children

Children need to get everything attractive, creative, and innovative because they have chattering minds. This kind of behavior is considerably good for the children for their better learning about life.[6]

The human mind is full of curiosity and also tries to search the way toward excellence; all these are the characteristics of mind, intellect, and consciousness. Sometimes, this energy or consciousness is seeming to follow the regular pattern of learning the sense of body and mind. It allows it to flow with every physiological and psychological action of the body viz. respiration, circulation, excretion, purification, and many more. Because, this consciousness always receives and stores the various kinds of information in the body, indifferent to good or bad; accumulates and increases form, sound, scent, flavor, feeling, and so on.

There is a concept in the Yoga philosophy to consider the 'Human Body as a Temple'. Yajurveda reveals the secrets of the relation between this human body and the universe in such a way that 'Whatever is inside the human body, which is as exactly seeming in the divine cosmos and vice versa, also truth'. All the creatures of nature like Mountains, Rivers, Birds, Animals, Insects, etc. are symbolically and spiritually inside the body in the form of various Yoga Practices. There are different Asanas practiced in the different traditions of Yoga schools viz.

यथा पिण्डे तथा ब्रम्हाण्डे । यथा ब्रम्हाण्डे तथा पिण्डे ।।

Yathā Piṇḍe Tathā Bramhāṇḍe Yathā Bramhāṇḍe Tathā Piṇḍe[7]

-Yajurveda

Human Observation of Nature	Name of Yoga Practice	
Birds	Asana	Kukkatasana (Cockerel Pose), Mayurasana (Peacock Pose), Titli Asana (Butterfly Pose), Hamsasana (Swan Pose), Garudasana (Eagle Pose), Bakasana (Crane Pose).
	Mudra	Kaki (The crow's beak)
Animals	Asana	Simhasana (Lion Pose), Markatasana (Monkey Pose), Vyaghrasana (Tiger Pose), Gomukhasana (Cow's Face Pose), Makarasana (Crocodile Pose), Sarpasana (snake pose), Bhujangasana (Cobra Pose), Ushtrasana (Camel Pose), Matsyasana (Fish Pose), Koormasana (Tortoise Pose), Mandukasana (Frog Pose), Ashwasanchaalanasana (Equestrian Pose), Utthan Pristhasana (Lizard Pose).
	Mudra	Ashwini Mudra (Horse Gesture), Bhujangini Mudra (Cobra Respiration), Manduki Mudra (Gesture of the Frog),
Insects	Asana	Shalabhasana (Locust /Grasshopper Pose), Vrishchikasana (Scorpion Pose)
	Pranayama	Bhramari Pranayama (Humming Bee Breath)
Instruments, Tools, and Creations	Asana	Chakrasana (Wheel Pose), Halasana (Plough Pose), Dhanurasana (Bow Pose), Setubandhasana (Bridge Pose), Naukasana (Boat Pose), Parvatasana (Mountain Pose), Padmasana (Lotus Pose), Surya Namskara (Salute to the Sun)

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III. ASPECTS RESPONSIBLE FOR THE HEALTH OF SCHOOL CHILDREN

A. *Physical Parameters*

1) *Body Mass Index:* It is an inexpensive and easy method of screening the physical health of an individual via the person's weight and height, which is categorized as underweight, healthy weight, overweight, and obesity. This method doesn't measure body fat directly, but it is moderately correlated with more direct measures of body fat.
2) *Blood Pressure:* An obese person has many more blood vessels than a lean person, a situation that can cause high blood pressure since the heart has to work harder. The tone of smooth muscle fibers in the walls of blood vessels plays a crucial role in maintaining blood pressure. Angiotensin II which is a Neuropeptide, stimulates thirst and may regulate blood pressure in the brain. The Glossopharyngeal (IX), a mixed sensory cranial nerve, monitors blood pressure and oxygen & carbon dioxide levels in blood.
3) *Respiration Rate (Breathing):* Oxygen, which is 65% of total body mass, it has very much significance in the human body. Oxygen which is a part of water and many organic (carbon-containing) molecules of the body; is highly used to generate ATP, a molecule used by cells to temporarily store chemical energy.
4) *Pulse Rate:* The pulse rate normally is the same as the heart rate, about 70 to 80 beats per minute at rest. Tachycardia is a rapid resting heart or pulse rate over 100 beats/minute. Bradycardia is a slow resting heart or pulse rate under 50 beats/minute.
5) *Body Temperature:* When your body temperature drops sharply, your brain (control center) sends nerve impulses (output) to your skeletal muscles (effectors). The result is shivering, which generates heat and raises your body temperature. In newborns, Brown Adipose Tissue (BAT) generates heat to maintain proper body temperature. The hypothalamus also functions as the body's thermostat, which senses body temperature.
6) *Waist Circumference*[8]*:* It is one of the dangerous facets of the overall health of humans, Obese children have a tendency to get unhealthy in a very easy way. Different organizations like World Health Organization, International Diabetes Federation, American Heart Association, and many more are continuously spreading awareness about this serious concern.

B. *Physiological Parameters*

1) *Percentage Body Fat:* The amount of fat varies from person to person, corresponds to the general extent of body fat in an individual[9], and typically increases with age. In the 26–29 weeks of the baby in the womb, the body fat is 3.5% of total body mass and additional subcutaneous fat smoothes out some wrinkles; while in 30–34 weeks the body fat is 8% of total body mass and in 35–38 weeks the body fat is 16% of total body mass.
2) *Blood Serum Cholesterol (BSC):* It is directly associated with the health of the heart[10], by taking the blood sample LDL (Low-Density Lipoprotein), HDL (High-Density Lipoprotein), and TG (Triglycerides) are measured. This parameter has a severe impact on health which occurs due to poor diet and a sedentary lifestyle.

C. *Psychological Parameters*

Neuropeptides have also been linked to improved memory and learning; feelings of pleasure or euphoria; control of body temperature; regulation of hormones that affect the onset of puberty, sexual drive, and reproduction; and mental illnesses such as depression and schizophrenia. Several physiological changes occur during NREM sleep. There are decreases in heart rate, respiratory rate, and blood pressure.

1) *Depression:* Depression is a disorder that affects most people in their whole life, people who are depressed feel sad and helpless[11], have a lack of interest in activities that they once enjoyed, and experience suicidal thoughts. For instance, some people may be depressed because of biological imbalances in neurotransmitters in their brains. As a result, the biological determinants of depression become intertwined with the social responses of other people, making it difficult to disentangle the effects of each cause.
2) *Anxiety:* The intense, excessive, and persistent form of worry, fear, shock, excitement, mental fatigue, loss, and grief turns an individual into a form of Anxiety.[12] Anxiety may slow digestion because it stimulates the sympathetic nerves that supply the Gastrointestinal (GI) tract.
3) *Stress:* Actually the exact role of stress in human diseases is still unknown, but it is very clear that stress can lead to particular diseases by temporarily inhibiting certain components of the immune system. Stress-related disorders include Gastritis, Ulcerative Colitis (UC), Irritable bowel syndrome (IBS), Hypertension, Asthma, Rheumatoid arthritis (RA), migraines, Headaches, Anxiety, and Depression. People under stress are at a greater risk of developing chronic diseases or dying prematurely.
4) *Quality of Life:* The term 'Quality' always makes an arrangement of comfort and happiness in the subjective assessment. In this issue, Quality of life is checked for the level of life satisfaction viz. financial, social, academic, relations, and many more.

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IV. DISCUSSION

Children are always fascinated towards to do something new, and such activities encourage them to keep their all body systems healthy. The nervous system demands more energy to become a creative mind, the digestive system demands better metabolism, the skeletal system demands good structural health, and many more.[13] All this is essential in maintaining a healthy diet, avoiding too much sugar & junk food, choosing foods that provide nourishment and energy, and taking a daily multivitamin via different vegetables and pulses. This is also the practice of Yoga which can enhance Self-Esteem and Self-worth in children. Students often base their feelings of self-worth on their accomplishments; the students do more work, then the overall healthy parameters will help them to feel good about themselves. If any children focus on grades, test scores, awards, and other external markers of success, then they can lose sight of their inner identity. Yoga helps to maintain all such parameters in a very kind manner for the future perspective of life.

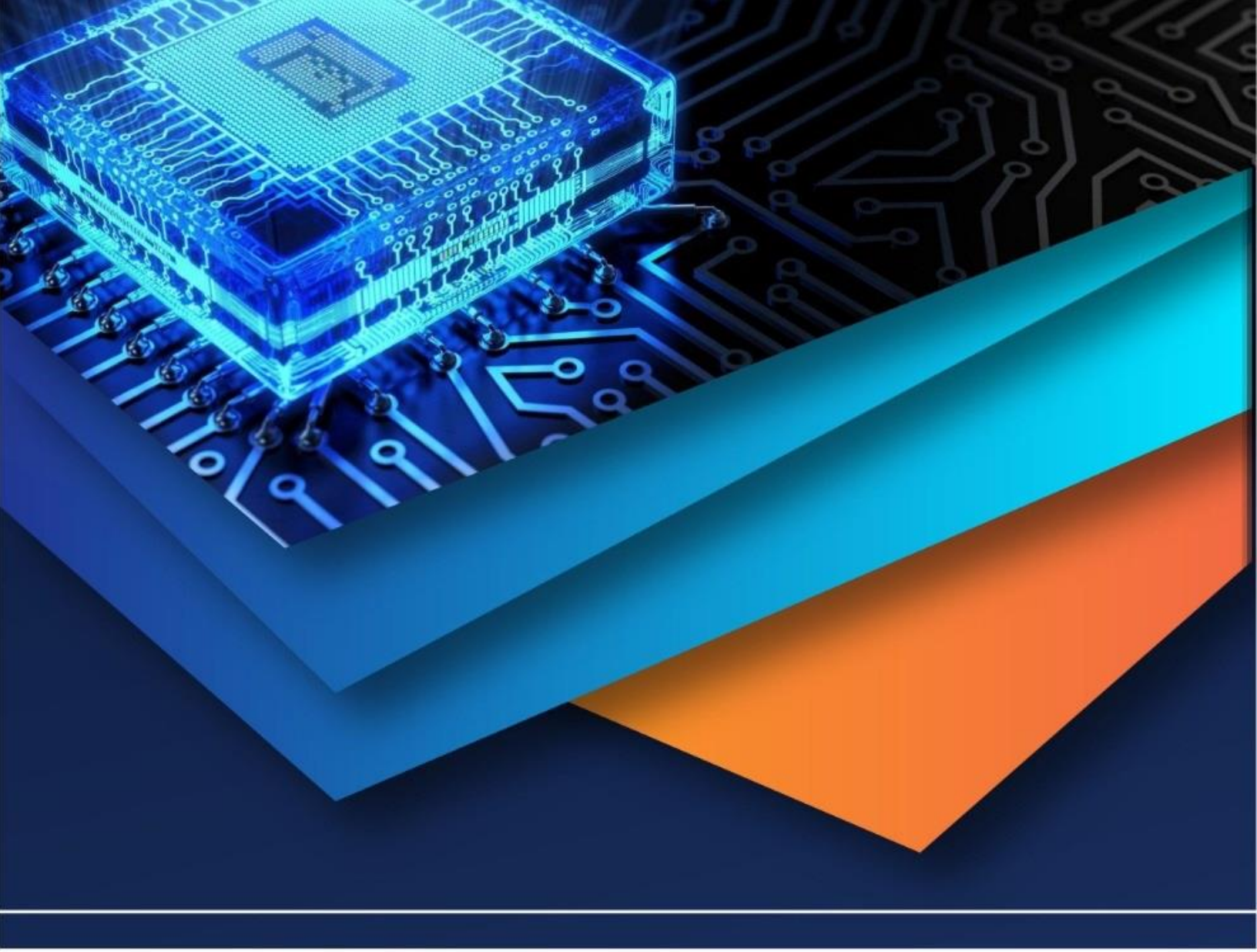
V. CONCLUSION

The paper has studied the factors that impact the overall health of children. Yoga practices like Asana, Pranayama, Pratyahara, Dhyana, and others can quickly screen out a disease-free life directed towards a lifetime of Happiness, Joy, Bliss, and Enjoyment.[14] Based on these factors, the paper provides clarity on the factors related to awareness and satisfaction in life; Yoga is the key that unlocks the treasure of the highest intelligence, wisdom, and divinity. Now talking about the conclusion, findings show that Children are essential tools for creating awareness of knowledge of the laws of Nature which will help them to turn out more efficient and solid within a short span of time.

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