

The Statistical Analysis of Perceived Benefits of Yoga Among School Students

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Abstract:

This study reports on the findings of a qualitative and quantitative evaluation of a yoga intervention program for high school youth in Villupuram City 50 students from age group of 14 to 15 participated in direct observations after taking part in the yoga practising, responses were systematically coded and themes identified. Results show that students perceived the benefits of yoga as increased self-regulation, mindfulness, self-esteem, physical conditioning, academic performance, and stress reduction. Certain Statistical inferences are analysed in this research work by using SPSS and MINITAB Statistical software's.

Keywords — Physical Exercise, Correlation, t-Test, Yoga practices, Diagrammatic Representations.

I. INTRODUCTION

Currently a lack of published qualitative studies provide information directly from student voices. There is a need to continue to improve understanding of the individual experiences by which yoga programs within the school. Therefore, the purpose of the current study is to perform a qualitative assessment using focus groups to examine student responses to the introduction of a yoga program within school Yoga is generally accepted as an ancient tradition that incorporates postures, breathing techniques, meditation, and moral and ethical principles. Academic performance and success can be measured by School completion, as well as class participation, the ability to apply learned information, and the productive management of demanding academic workloads. Due to the demanding nature of school education, students are at an increased risk for the harmful consequences of poorly regulated stress.

This survey sought to determine the level of interest, as well as the degree of value, that school students place on the integration of mindfulness within their institution.

The effects can influence one's learning potential, contributing to distractibility, loss in memory capacity, thought clarity, and emotional stability; whereas, contemplative practices can support healthy practices capable of increasing productivity and focus. However, the actual use and acceptance of these yoga practices may widely vary depending on students' past experience, perceptions and perceived benefits and barriers. The extent to which this can be examined can assist school education in integrating practices throughout the school experience.

Yogiraj Vethathiri Maharishi was born in the year 1911 in an indigent family of Guduvancheri, a small village near Chennai. Constrained to go even without the bare necessities of life, despite toiling at the loom from

early morning to late night, He struggled for his formal schooling. He founded the world community service centre in 1958 and the organisation has branch centres all over india, in the USA, in Japan, in Korea and in Malayasia. Vethathiriyani Yogic 'Simplified Physical Exercises (SPE)' including neuro muscular breathing exercises. Was given to the pupils

II. SIMPLIFIED PHYSICAL EXERCISES

A system of Simplified Physical Exercises steady would enable pupils to attain good mental and physical health. Yoga practices include physical postures including regulated breathing, and specific metaphysical guiding principles.

A total of 50 participants aged between 14 to 15 years, who had been trained in yoga for 3 months were assessed for the immediate effect of student's in our study, noted benefits specifically from simplified physical exercise which have previously shown to improve their academic performance and health. Participants reported an increase in self-confidence, as in a previous study. Behavioural interventions such as yoga may empower patients to take an active role in altering their lifestyle habits, and overall, engendering a greater sense of agency.

Yoga has previously been shown to modulate personality traits and promote self-growth. The previous study indicates that moving one's body alongside others increases feelings of interpersonal connection. Similarly, we found that connection to the group motivation and persistence, particularly in this group of people sharing the same diagnosis and yoga instructor, raising the possibility of normally limits participation in group exercise and activity. A relatively greater importance of group practice and social connectedness was also clear in the noted preference of group over solo home practice. At the same time, the combination of online technology seemed to assist participants to adhere to the study involvement.

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Man is an unique figure in the manifestation of the Universe. Man is supreme along all the living beings on Earth because he is gifted with the sixth sense, that is, the potential of Self-Realisation.

The collective function of the energy-particles within the physical body produces a characteristic magnetic wave which is called the bio-current. Life-force, soul, ethereal body, astral body are but different names for the same phenomenon. The bio-current is a continuous wave generation by the self-rotative force of billions of energy-particles. One portion of the bio-current functions through the senses as the mind; and the other portion functions as all the physical actions and routines.

III. DATA EXTRACTION

The number of correct and incorrect responses, and the number of anticipatory responses were directly obtained from the displayed in the google form excel sheet. Multiple sclerosis is known to reduce nerve conduction velocity. Vethathiriyani of Simplified Physical Exercises were given to 50 school students diagnosed with multiple sclerosis.

Assessment between participants who had experience in yoga and those who were new-to-yoga were carried out on two groups of healthy students of age between 14-15 years. The yoga group had been practicing yoga which included postures, breathing techniques, and meditation for an average of 6 months. The yoga group had two experimental sessions as follows:

- (i) Simplified Physical Exercises
- (ii) A session of breath awareness, as breath awareness is part of yoga practice and has been shown to influence attention. The control group was assessed after a comparable duration of time, seated comfortably, with their eyes closed.

The participants were assessed in three different sessions conducted on separate days at the same time of the day. The sessions were as follow:

- Simplified Physical Exercise
- A control session of sitting quietly. The order of the sessions was randomized for the 50 participants using a standard randomizer

Each session consisted of three times:

Simplified Physical Exercise (60 min)

During this Simplified Physical Exercise includes the participants were seated with eyes closed. The participants inhaled deeply and fully so that breathing was diaphragmatic while also increasing the chest during inhalation. Exhalation was also complete with a full out-breath. Inhalation and exhalation were through the nose. The participants would be seated with their eyes closed. They would be asked to be aware of the measure of air through the nasal passages. The participants were instructed to bring their attention back to their breath if it rambled.

Statistical Analysis

In this research pie chart, diagrammatic representations, histogram, t test and correlation analysis are analysed with SPSS Statistical software

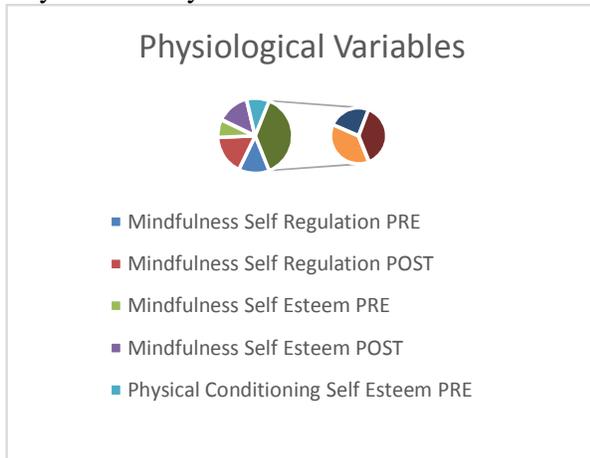


Fig. 1 Physiological Variables

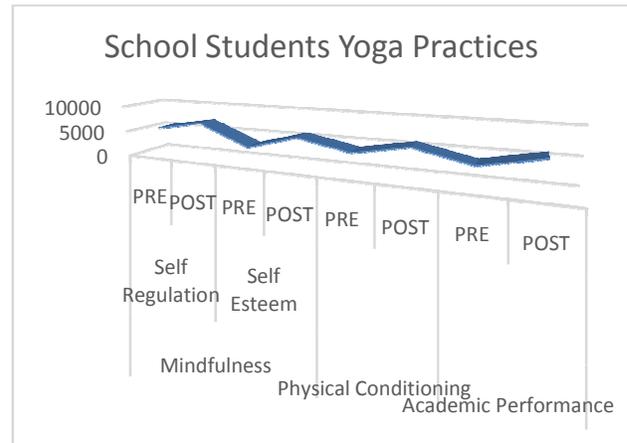


Fig. 2 School Students yoga Practices

All variables are increased after having yoga practices, doctors consider a healthy BMI formen to be 20.5–27.9. A BMI of 35 or above may indicate obesity. The average weight for a 15-year-old boy is between 80 and 160 pounds

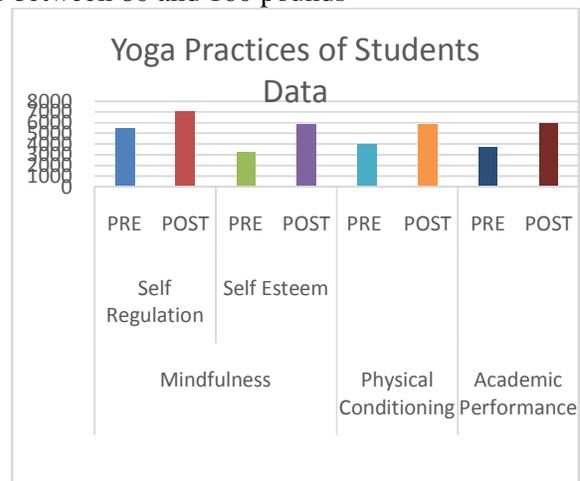


Fig. 3 yoga Practices of Students Data

According to the CDC, most 15-year-old boys weigh between 80 and 160 pounds (lb). The 50th percentile for weight in this group is around 101 lb. This means that about 50% of boys this age weigh less than 101 lb. If a 15-year-old boy weighs under the fifth percentile, a doctor may classify this as being underweight.

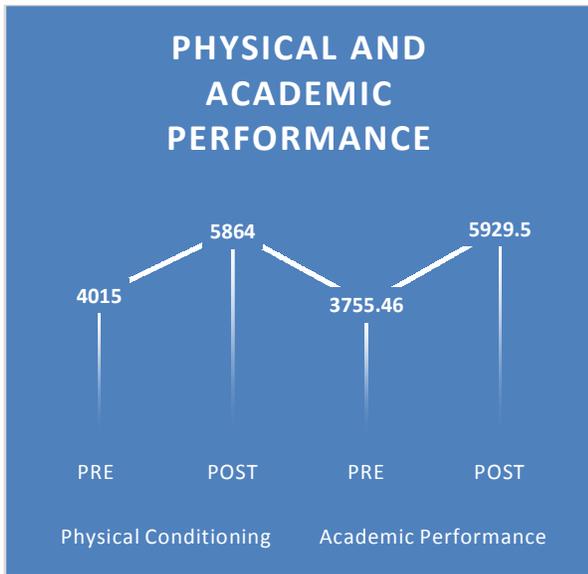


Fig. 4 Physical and Academic Performance

Measures of Central tendency:

A measure of central tendency is a single value that attempts to describe a set of data by identifying the central position within that set of data. As such, measures of central tendency are sometimes called measures of central location. They are also classed as summary statistics.

The students post academic performance are mean = 82.16, Median=83.50 and mode=88.00. Comparing these values with pre academic performance, its highly increased. All values are equal. The data are followed by normal distribution. Skewness and Kurtosis values are 0.33 and 0.76 respectively.

Measures of central tendency helps to find the middle, or the average, of a data set. The 3 most common measures of central tendency are the mode, median, and mean. Mode: the most frequent value. Median: the middle number in an ordered data set. Mean: the sum of all values divided by the total number of values

Statistics

		Pre-Academic Performance	Post Academic Performance
N	Valid	50	50
	Missing	5	5
Mean		48.7800	82.1600
Median		49.5000	83.5000
Mode		52.00 ^a	88.00
Std. Deviation		9.66012	9.37726
Skewness		-.335	-.333
Std. Error of Skewness		.337	.337
Kurtosis		-.076	-.691
Std. Error of Kurtosis		.662	.662
Range		44.00	40.00

a. Multiple modes exist. The smallest value is shown

IV. CORRELATION

Correlation is a statistical measure that expresses the extent to which two variables are linearly related (meaning they change together at a constant rate). It's a common tool for describing simple relationships without making a statement about cause and effect.

Correlation is used to describe the linear relationship between two continuous variables in this research pulse rate of the students and practicing hours are considered. It measures the strength and direction of the linear relationship between two or more variables. Based on this analysis correlation value is positive.

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pre Self Regulation & Post Self Regulation	50	.770	.000

V. T-TEST:

The t test tells, how significant the differences between groups are; Data are segregated in two groups each group having 30 participants. A t test can tell comparing the means of the two groups and letting know the probability of those results happening by chance. Two groups are

considered for yoga practices before and after having improvements in their normal self-

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre Self Regulation	1.2124E2	50	16.46711	2.32880
Post Self Regulation	1.3638E2	50	13.25864	1.87505

VI. CONCLUSIONS

The students were asked to discuss both the physical and mental benefits to exercise. There were four main mental health benefits which emerged: reduction of stress, self-regulation, mindfulness and increased self-esteem. The main physical health benefits which emerged were overall physical conditioning, energy levels, and increased athletic performance. The results of our study found that high school students perceived the benefits to yoga as increased physical conditioning, self-regulation, self-esteem, academic performance, stress reduction and mindfulness.

The challenges to ongoing practice discussed by the students included mostly physical space and time, signifying that the barriers to practice were logistical. This can be viewed as a positive finding for future yoga programming in that the “complaints” (or resistance) were not based on resistance to the actual practice. As far as time is concerned, this may be an indication that students would benefit from improved time management skills and/or an improved ability to prioritize activities. Yogic philosophy, as well as benefits of Stress reduction from Kundalini yoga, may eventually help encourage these skills and help alleviate time pressures. Again, this is an area of potential future theory development.

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Regulation.

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Conflicts of interest

There are no conflicts of interest.

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