INTERNATIONAL JOURNAL FOR INNOVATIVE RESEARCH IN MULTIDISCIPLINARY FIELD ISSN: 2455-0620 Volume - 6, Issue - 12, Dec – 2020
Monthly, Peer-Reviewed, Refereed, Indexed Journal with IC Value: 86.87 Impact Factor: 6.719
Received Date: 28/11/2020 Acceptance Date: 12/12/2020 Publication Date: 31/12/2020

EFFECT OF SELECTED YOGIC PRACTICES AND AEROBICS EXERCISES ON PSYCHOLOGICAL, PHYSIOLOGICAL AND PHYSICAL VARIABLES OF SECONDARY SCHOOL CHILDREN

[1]Radhika G.Milli, [2]Dr. Srinivas

[1] Research Scholar Department of Physical Education and Sports Science Akkamahadevi Womens University Vijayapur.

[2] Assistant Professor, Department of Physical Education and Sports Science Akkamahadevi Womens University Vijayapur

In the present society, with PCs, TVs and vehicles the vast majority don't have adequate physical exercise to keep up satisfactory health. Truth be told, numerous individuals have turned out to be sedentary to the point; that their way of life has turned into a genuine danger to their health and their absence of physical exercise has started to prompt an expanded crumbling of the human health and regularly to an untimely illness and death. All through the ages, man has must be physically dynamic so as to obtain his every day food to prevail in the skirmish of survival. Exercise assumes a noteworthy job in improving the quality and probably the life span of our lives. For each individual physical activity is basic for agreeable physical and mental advancement. The body is the sanctuary of soul and to achieve an amicability of the mind, body and soul, the body must be physically fit. The vast majority who exercise normally will concur that one of the primary explanations behind their exercise is that it makes them feel better, and help them to accomplish or keep up great health and physical fitness. The impact of ordinary physical activity essentially improves health, physical fitness and work limit and empowers individuals to utilize their relaxation time all the more usefully and in this manner helps with adding life to years and furthermore years to lives. The motivation behind the present investigation was to discover the impact of Yoga rehearses on Physical, physiological and Psychological variables of Secondary school students.

Key Words: *Physical Exercise, Yoga, Aerobics, Fitness, Children etc.*

1. INTRODUCTION :

Exercise assumes a significant job in day today life, in light of the fact that expanded requests and quick life approach needs a fit and sound mental and physical fitness. Man from the earliest starting point of the life was free and was very much aware of its needs every now and then. Be that as it may, for each reason and each progression it needs legitimate fitness and striking choices based on which it is predominant on other living species. So fitness remains the primary worry for him from the date of development of human life on this planet. In current world to accomplish total or criteria required fitness for the specific undertaking various endeavors were made to accomplish it through various methods and strategies and is particularly fruitful in that. The most prevalent and most satisfactory procedure is explore. By this procedure everybody attempts to add to field of life.

As of late, the vast majority of the general population around the globe are rehearsing yoga normally to get and remain fit and healthy. In present day age, life is ending up exceptionally complex that seen and concealed dangers to health and have multiplied to a disturbing numerous illnesses like asthma, ulcer, migraine, heart attack, back pain, blood pressure, diabetes and so forth. Today in this quickly developing world the capabilities for the survival have gone up and one need to face part of rivalries. One may be wealthy in materialistic sense. Be that as it may, keeping a healthy perspective is troublesome because of the enormous number of issue of day by day life. Because of the pollution likewise the health status is aggravated. Numerous individuals don't breathe appropriately and are uninformed of this reality. Legitimate breathing significantly improves our entire physical and mental prosperity. The breath is personally associated with our condition of health and inappropriate breathing will regularly reflect different aggravations of body and mind. The breath is maybe the main physiological procedure that can be either voluntary or involuntary. Customarily when individuals talk about pranayama they by and large mean those yogic practices, which included some sort of control of the breathing activity. Yet, when one takes a gander at the convention of the yoga. One finds that the idea of pranayama has a lot more noteworthy width and its procedures incorporate huge range of extremely unpretentious components separated from the straightforward control of breathing activity. One can breathe with mindfulness and control the breathing procedure intentionally or one can overlook it and breathe reflexively or unwittingly. In the event that the breath is oblivious, it falls under the control of crude pieces of the mind, where feelings, musings and sentiments

of which we have practically zero mindfulness turned out to be included. Thusly the normality and cadence of the breath are bothered and it streams in an awkward manner, making ruin in the body and mind.

1.1 YOGA

Yoga has turned into the design of the day. Millions everywhere throughout the world have taken to yoga practices. Step by step the comprehension of yoga is getting depended. Yoga is a strategy for discovering that expects to accomplish the solidarity of mind, body, and soul through these three primary Yoga structures: Exercise, Breathing, and Meditation. The exercises of Yoga are intended to put pressure on the Glandular Systems of the body, in this way expanding its effectiveness and absolute health. The body is viewed as the essential instrument that empowers us to work and develop on the planet, a Yoga student; consequently, treats it with incredible consideration and regard. The Breathing Techniques depend on the idea that breath is the wellspring of life in the body. Yoga shows us how to command over miss driving considerations, nervousness, strain, tress and angerness. Yoga with its convenience to the cutting edge man to mitigate his stresses and strains to the patients in prevention, treatment, rehabilitation and advancement to positive health, to the expert in expanding their aptitudes and improve the personal satisfaction and so on is drawing in individuals from all segments of the general public. Yoga students tenderly increment their breath control to improve the health and the capacity of both body and mind. These two systems set up the body and mind for Meditation, making it simpler for students to accomplish a calm mind and be free from regular stress. Customary every day routine with regards to each of the three pieces of this structure of Yoga produce a reasonable, brilliant mind and a solid, fit body.

Yoga exercises delicately tone and shape the body, improve stance, adaptability and add to feeling of prosperity. It keeps the blood vessel elastic, decrease hypertension now and again. Yoga exercises tenderly push on the body glands and organs, bringing about positive impacts for the stomach related, endocrine and conceptive systems. The way of concentrating the body and mind getting to be in valid with God is known as yoga. Yoga is useful in fortifying the bones, muscles and other organic system of the body. The principle point of yoga to accomplish every one of the solaces of life and to make the living soul one with god so that my dispose of the cycle of births death and resurrections and achieve salvation. Yogic exercises are additionally getting to be mainstream in the region of games and sports and furthermore in the educational program of Indian schools, universities and colleges. Yoga the antiquated study of India, is a cognizant procedure for picking up dominance over the mind and along these lines become quicker from the creature level to end up typical human creatures and achieve stature of enormity. Super human levels and at last achieve heavenly nature or flawlessness itself. This cognizant procedure of picking up authority causes us to show the inborn possibilities torpid in every last one of us and bloom into men with the fivefold character improvement.

1.2 AEROBICS

High-impact exercise is physical exercise that expects to improve the effectiveness of the cardiovascular system in engrossing and transporting oxygen. Vigorous exercise is commonly translated to mean with oxygen and high-impact, "to mean without oxygen". The mechanics of high-impact exercise expects oxygen to be acquired by the lungs and moved to the blood vessels. Oxygen rich blood is then siphoned by the heart to muscles. The muscles use oxygen for muscle constriction. Albeit both procedure use oxygen, Aerobic limit is a profitable segment of most fitness programs the measure of work that can be cultivated utilizing the oxidative system changing over supplements in to energy. It is clear that oxygen consuming energy is the prime wellspring of energy for any sport; the game volleyball is no special case. I will likely discover this impact of oxygen consuming exercise on playing volleyball. The American College of Sports Medicine (ACSM) characterizes oxygen consuming exercise as any activity that utilizations huge muscle gatherings, can be kept up constantly and is musical in nature ‖ . Normal vigorous exercise diminishes the heart rate and blood pressure very still and at some random dimension of exercise the capacity to take in and utilization of oxygen.
High-impact exercise alludes to exercise that includes or improve oxygen utilization by the body. High-impact alludes to the utilization of oxygen in the body's metabolic or energy producing process. One such benefit of oxygen consuming training is an expanded cardio-respiratory continuance, which thusly diminishes the general danger of death related with absence of maximal vigorous limit (VO2 max). The body changes over food to fuel by means of a few distinctive energy pathways. In the most straightforward terms, the body can change over supplements to energy with or without the nearness of oxygen. These two energy systems are called:

- Anaerobic metabolism (without oxygen)
- Aerobic metabolism (with oxygen)

The mechanics of aerobic exercise necessitate that oxygen be gotten by the lungs and moved to the blood vessels. Blood which is rich in Oxygen is then siphoned by the heart to the muscles. The muscles use oxygen for muscle compression. Through routine aerobic activity, the body turns out to be progressively productive at preparing oxygen. Instances of aerobic activity incorporate running, running, biking, paddling, and strolling. Truth be told any exercise

that joins enormous muscle gatherings raises the heart rate, breathing rate and body temperature is considered as aerobic in nature.

2. LITERATURE REVIEW:

- Oken, et.al. (2006) analyzed randomized, controlled, half year preliminary of yoga in healthy seniors and the impacts on discernment and quality of life. The yoga mediation created upgrades in physical measures (e.g., coordinated 1-legged remaining, forward flexibility) just as various quality-of-life estimates identified with feeling of prosperity and energy and exhaustion contrasted with controls. Murugesan et.al. (2007) considered the impact of chose yogasanas on muscular strength and flexibility among higher secondary school boys. Subjects were forty higher secondary school boys from K. V. R. Higher Secondary School, Virudhunagar. They were isolated into groups as experimental group and control group to test the muscular strength and hip flexibility. Force ups and sit achieve tests were managed toward the start and end of about a month and a half experimental treatment separately. The gathered data were measurably dissected by utilizing 'T' tests for connected methods. It was discovered that there was critical distinction in muscular strength and flexibility between experimental group and control group.
- Radhakrishnan, (2007) examined the impact of chose yogasanas on low back pain for a group of moderately aged ladies. To accomplish the reason for the investigation among the ladies filling in as instructors, educators, typists and assistants who went to yoga class, a case history of the infirmity (low back pain) were chosen. Further a certified therapeutic official who made an exhaustive restorative examination to find out the potential reasons for back and separated those subjects who might not endure any contra sign inferable from organization of yogasanas screened the ladies. Utilizing irregular inspecting strategy, 45 ladies were chosen for this examination. Their age ran from 35-40 years. Flexibility and scope of pain were taken for this investigation. The subjects were separated into three groups and each group comprised of 15 ladies. Group-I was the control group. Group II experienced the training of general asanas and fitness exercises. Group III experienced chosen helpful asanas. The subjects were tried on, low back pain, hip flexibility toward the start (pretest) and toward the finish of the experimental period (posttest). The finishes of the investigation were that, yogasanas increment the hip flexibility, scope of pain and it expands stomach strength/perseverance, the consequences of the examination demonstrates that absence of physical exercise is likewise one of the foundations for low back pain.
- Sakthi Gnanavel and Buvaneswari (2006) researched the impacts of chosen psycho-physiological variables of working ladies. Fifteen ordinary female volunteers had experienced multi week training program on Asanas, Pranayama and Meditation. The reasonable psychological parameters (individual stress and health systems) and physiological parameters (beat rate and heart rate) were taken when the yoga practice program. The outcomes demonstrated that there is more noteworthy improvement in all parts of experimental group than the control group. Shenbagavalli and Raj Kumar (2007) examined the impact of pranayama on chose physiological variables among men volleyball players. Twenty four male subjects for this examination were chosen from Dr. Sivanthi Aditanar College of physical training, Tiruchendur haphazardly and partitioned into two groups as experimental and control groups. Data were gathered from each subject when the training. The gathered data were factually dissected by utilizing investigation of covariance (ANCOVA). It was discovered that there was noteworthy distinction on chosen physiological variables of resting heartbeat rate, breath holding time and diastolic blood pressure in the experimental group when contrasted with the control group.
- Parthiban, (2007) led an investigation on the impact of yogic procedure on blood pressure. Twenty ladies were chosen arbitrarily between the age group of 40-55 years. They were treated as experimental group, they experienced yogic system (Jalandhar bandha) five days seven days, for about a month and a half. Data were gathered when yogic method. The noteworthiness of the distinction among the methods for experimental group was discovered by pretest and posttest. The data were investigated and subordinate't' test was utilized with 0.05 dimension. The't" proportion for systolic blood pressure and diastolic blood pressure was noteworthy and the improvement was because of the impact of yogic procedures.

3. MATERIALS:

For the Research Study we chose 40 Secondary school students to discover the understand the Effect of chosen yogic practices and Aerobics Exercises on Psychological, Physiological and Physical variables of Secondary school Children. The subjects were partitioned in to two groups similarly with 19 each as experimental and control group. Every one of the students that were chosen for the Research, were under physical Training Classes.

4. METHOD:

The pre and post-test were led on chosen variables of physical fitness variables of 50 meter dash, standing broad jump, sit ups and sit and reach, physiological variables of crucial limit, resting heart rate, breath holding time, respiratory

rate, systolic pressure and diastolic pressure and psychological variables of mental health, fearlessness and anxiety. Every one of the tests were done with standardized method. The psychological parameters were surveyed through standardized psychological poll. For surveying fearlessness, self-assurance scale poll structured and standardized.

5. DISCUSSION :

The gathered data of experimental and control groups were factually broke down by utilizing mean standard deviation and t-test and displayed in Table 1 and 2. The dimension of hugeness was fixed at 0 .05 dimension of confidence with the table estimation of 2.10. The t-estimations of 2.10 and above were viewed as huge in this investigation. In the tables it was meant by star (*) which demonstrates 0.05 noteworthy dimension.

6. FINDINGS :

- The dimension of hugeness was fixed at 0 .05 dimension of confidence with the table estimation of 2.10
- The t-estimations of 2.10 and above were viewed as huge in this investigation

7. RESULT:

The consequences of the present examination demonstrate the adequacy of yogasanas in physical fitness, physiological systems and psychological effectiveness of Secondary school students. The control group posttest means score demonstrates that the physical training alone insufficient to improve the psychological proficiency. In the experimental group all the chose variables were altogether improved in some degree and it instruct us that yoga training is valuable to everybody in especially sports people to accomplish the higher exhibition level in light of the fact that the chose variables in the examination were progressively identified with the sports men as well. From the investigation it is accepted that the yoga training isn't gainful for psychological advancement yet additionally physiological and physical fitness improvement.

8. LITERATURE SURVEY:

In the present society, with PCs, TVs and vehicles the vast majority don't have adequate physical exercise to keep up satisfactory health. Truth be told, numerous individuals have turned out to be sedentary to the point; that their way of life has turned into a genuine danger to their health and their absence of physical exercise has started to prompt an expanded crumbling of the human health and regularly to an untimely illness and death.

9. OBJECTIVES OF THE STUDY:

1. To understand the concept of Yoga and Aerobics
2. To understand the Effect of selected yogic practices and Aerobics Exercises on Psychological, Physiological and Physical variables of Secondary school Children

10. RESEARCH METHODOLOGY:

For the Research Study we chose 40 Secondary school students to discover the understand the Effect of chosen yogic practices and Aerobics Exercises on Psychological, Physiological and Physical variables of Secondary school Children. The subjects were partitioned in to two groups similarly with 19 each as experimental and control group. Every one of the students that were chosen for the Research, were under physical Training Classes. The pre and post-test were led on chosen variables of physical fitness variables of 50 meter dash, standing broad jump, sit ups and sit and reach, physiological variables of crucial limit, resting heart rate, breath holding time, respiratory rate, systolic pressure and diastolic pressure and psychological variables of mental health, fearlessness and anxiety. Every one of the tests were done with standardized method. The psychological parameters were surveyed through standardized psychological poll. For surveying fearlessness, self-assurance scale poll structured and standardized.

Figures

Table 1: The mean, standard deviation and t-value of Control group

S.No	Physicle Psychological and Psychological Parameters	Preters Mean	Post Test Mean	SD	Mean Diffrence	t-Value
1	Standing Broad Jump	2.02	2.08	5.26	-0.06	1.34
2	50 Mters Dash	8.28	7.49	2.31	-0.39	2.91*
3	Sit and Reach	18.56	18.58	0.43	-0.02	0.68
4	Sit -UPS	17.79	18.07	8.64	-0.28	1.06
5	Resting Heart rate	67.45	65.76	4.54	-1.69	0.65
6	Vital Capacity	2.36	2.44	0.86	-0.08	3.20*
7	Respiritory Rate	16.54	18.22	0.98	-1.68	1.42
8	Breath Holding Time	22.68	24.23	3.88	-1.55	1.23

9	Diastolic Blood Plesure	78.66	81.42	1.43	-2.76	1.98
10	Systolic Blood Plesure	122.43	123.18	0.69	-0.75	0.39
11	Self Confidence	35.86	33.08	0.64	-2.78	1.98
12	Anexity	22.85	26.28	1.04	-3.43	0.74
13	Mental Health	122.55	120.86	8.62	-1.69	2.02

Table 2. The mean, standard deviation and t-value of experimental group

S.No	Physicle Psychological and Psychological Parameters	Preters Mean	Post Test Mean	SD	Mean Diffrence	t-Value
1	Standing Broad Jump	1.97	2.10	2.42	-0.13	3.68*
2	50 Mters Dash	8.43	8.12	0.55	0.31	2.15*
3	Sit and Reach	17.86	19.31	3.51	-1.45	6.69*
4	Sit -UPS	18.65	19.22	0.66	-0.57	2.44*
5	Resting Heart rate	65.44	63.00	2.08	-2.44	3.11*
6	Vital Capacity	2.59	2.98	5.43	-0.39	4.01*
7	Respiritory Rate	18.43	16.11	4.34	-2.32	3.14*
8	Breath Holding Time	23.55	26.76	1.14	-3.21	4.83*
9	Diastolic Blood Plesure	81.60	77.08	1.89	-4.52	3.18*
10	Systolic Blood Plesure	119.66	116.72	12.06	-2.94	2.52*
11	Self Confidence	32.42	41.12	1.24	-8.69	6.08*
12	Anexity	23.42	19.14	0.32	-4.28	2.22*
13	Mental Health	118.76	126.66	0.88	-7.90	5.64*

11. CONCLUSION:

Yoga advocates unselfishness and enormous love. Yoga advocates virtue and patience. Yoga additionally gives gladness, ground-breaking tonic for the mind, masculinity, considerateness with the limit with respect to block attempt and self-examination. The consequences of the present examination demonstrate the adequacy of yogasanas in physical fitness, physiological systems and psychological effectiveness of Secondary school students. The control group posttest means score demonstrates that the physical training alone insufficient to improve the psychological proficiency. In the experimental group all the chose variables were altogether improved in some degree and it instruct us that yoga training is valuable to everybody in especially sports people to accomplish the higher exhibition level in light of the fact that the chose variables in the examination were progressively identified with the sports men as well. From the investigation it is accepted that the yoga training isn't gainful for psychological advancement yet additionally physiological and physical fitness improvement. It is reasoned that yogic practices group observed to be superior to anything aerobic exercises group in improving breath holding time, resting heart rate, systolic blood pressure, diastolic blood pressure.

REFERENCES:

1. Nagendra HR, Mohan T. (2011). Yoga in Education, Swami Vivekananda yoga prakasan.
2. Chen T. L. (2009). The Effect of Yoga Exercise Intervention on Health Related Physical Fitness in School-Age Asthmatic Children, International journal of sports sciences, Taipei County.
3. Shantha Meena (2007). “Effect of yogasana and aerobic training on the selected physiological and bio chemical variables of middle aged women”, paper presented at the international conference on “metabolic syndrome in Yoga and Naturopathy”Alagappa University, Karaikudi.
4. Gore, M.M.., Bhogal, R.S., Kulkarni, D.D. and Bera, T.K. (2003). Effects of yoga and aerobics training on cardio respiratory functions in obese people” Yoga Mimamsa, Vol.XXXV, No.1 and 2: 35-53, April 2003 and July 2003.
5. Oken, B., Zaidel, D., Kishiyama, S., Flegal, K., Dehen, C., Haas, M., Kraemer, D.Lawrence, J. & Leyva, J. (2006). Randomized, controlled, six-month trial of yoga in healthy seniors: effects on cognition and quality of life. Alternative Therapy Health Medicine, 12, pp. 40-7.
6. Murugesan, T., Raghavan, G. and Dr. V. Jeya Veerapandian (2007). Paper presented at the international conference on “metabolic syndrome in Yoga and Naturopathy” Alagappa University, Karaikudi.
7. Radhakrishnan, T. (2007). “Effect of selected yogasanas on low back pain for middle aged group women” paper presented at the international conference on “metabolic syndrome in Yoga and Naturopathy” Alagappa University, Karaikudi.
8. Sakthi Gnanavel and Buvaneswari (2006). Journal of physical education and Exercise Sciences, vol.2, No.2 P-66 published by Y.M.C.A college of physical education nandanam, Chennai-35(A project of National Council of Y.M.C.As of India) Oct-2006.
9. Shenbagavalli, A, and Raj Kumar, M. (2007). “Effect of pranayama on selected physiological variables among men volleyball players”. Indian journal for research in physical education and sports sciences (IJRPESS) 24-27 April-September 2007.