

Effect of Aerobic Exercises and Yogic Practices on Selected Physiological Profiles of Diabetic Patients

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Abstract – Presentation Yoga is perhaps the most seasoned type of activity. Yogic kriyas are advantageous for wellness and sound living. Reason - The motivation behind this examination was to dissect the Effects of Yogic Kriyas on Physiological profile of Diabetic Patients. Choice of subjects:- Twenty Five patients were chosen as a subject with the end goal of the examination. The chose Diabetic patients were enduring with the Type-I and Type-II Diabetics. The period of subjects was somewhere in the range of 30 and 60 years. Choice of Variables:- Blood Glucose Estimation (BGE) Fasting, Glucose Tolerance Test (GTT) as long as 2 hours after organization of 50gm of glucose orally, Systolic Blood Pressure, Diastolic Blood Pressure, BMI, Resting Pulse Rate and Respiratory Rate were chosen as foundation factors. Assortment of information first the information was taken before actualizing the treatment and again information was taken following multi week of preparing. Investigation of information Mean, S.D.

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INTRODUCTION

The Yogic practices influence and infiltrate each and every cell and tissues making them spring up. Yogic Kriyas are purifying procedures that rinse different interior organs of the body. They are likewise called shatkriyas or shatkarma in light of the fact that they are six in number, normally known as Neti, Dhauti, Basti, Trataka, Nauli and Kapalbhathi. Yoga assists with conditioning up the whole body to regularize blood pieces and improve blood flows, tones up organs and instinctive muscles. Robson states that "yoga creates adaptability and imperative limit". Standard act of yoga assists with keeping our body fit, controls cholesterol level, lessens weight, standardizes circulatory strain and improves heart exhibitions. Further, primer investigations in the United States and India propose that yoga might be useful for explicit conditions, for example, diabetes asthma, epilepsy, nervousness, stress and others. The advantages of yoga are various, including improved physical wellness, stress control, general prosperity, mental lucidity and more prominent self-comprehension. The postures improve muscle quality, coordination, adaptability and dexterity and can assist hack with feeling much improved. It has been clarified in the Niyama of Eight Limbs of Yoga (Ashtanga Yoga) that one needs to do the act of saucha/sauca. The saucha is the other name of yogic kriyas. Kriyas are purging procedures used to

clean the body and mind which at last open the pathways of the body, the nadis, the vitality body, the psyche, and the heart.

Kriyas are all the more prevalently called Shat Karmas. Numerous individuals are pleased with their outer neatness, yet numerous who wash their outside consistently are decaying from inside, as prove by appalling smell from their mouths, dark skin shading, and profound wrinkles. Yogic Kriyas are purifying procedures that purge different inside organs of the body. They are additionally called shatkriyas or shatkarma on the grounds that they are six in number, normally known as Neti, Dhauti, Basti, Trataka, Nauli and Kapalbhathi. Joshi respect yoga to be related with securing and presentation of heavenly powers, requiring total depiction of brain and body. He has, further clarified "Yoga" as the thing got from the root "Yujur" intend to "Join together" or "to interface". Yoga has it on innovation and furthermore logical premise.

Nagasukeerthi et al. directed an investigation on Type 2 diabetes mellitus (T2DM) is a significant worldwide medical issue. In spite of the fact that different examinations have announced the gainful impact of Yoga in quiet with T2DM, there is an absence of concentrate in blend with chime pepper and yoga. Subsequently, the present examination targets assessing momentary impact of extra ringer

pepper juice with incorporated methodology of yoga treatment (IAYT) on blood glucose levels and cardiovascular factors in patients with T2DM.

Fifty T2DM subjects with the age changed from 34 to 69-years were enlisted and arbitrarily separated into either study gathering or control gathering. The investigation bunch got 100-ml of ringer pepper juice (twice/day) alongside IAYT while the benchmark group got IAYT for 4-sequential days. Pattern and post-test evaluations were taken when the intercession. Measurable examination was performed utilizing factual bundle for the sociologies, form 16. Aftereffects of this examination indicated no noteworthy distinction in general (fasting and post prandial) blood glucose level in the investigation bunch contrasted and control gathering. Be that as it may, a noteworthy decrease in Post prandial blood glucose (PPBG), systolic circulatory strain (SBP), and heartbeat pressure (PP), rate pressure item (RPP) and Double item (Do-P) was seen in the investigation bunch contrasted and control gathering. End: Results of this investigation propose that however an expansion of 100-ml of chime pepper juice (twice/day) alongside IAYT isn't progressively viable in lessening fasting blood glucose, it might be increasingly compelling in decreasing PPBG, SBP, PP, RPP and Do-P than IAYT alone.

The present trend of the thought based on a materialistic philosophy of power, prosperity and pleasure has resulted in a form of sensate culture. Worldly values dominate the modern man who reacts to stimuli and struggles for self-preservation, selfaggrandisement and self- gratification. This ego ridden individual seeks freedom and happiness in his nerve- racking hunt for worldly objects which leads to a life of bondage, misery, worries, insecurity, despair, frustration, disillusionment and doubt. The modern man has sold himself to gain reputation, personal power, more money and other selfish ends; he is caught in never- ending mad rush to meet all kinds of unrestrained needs which wear and, tear out, his vital organs much sooner. Due to his abnormal living habits, and a exciting, straining life his emotional balance is disturbed. Emotional disturbances can upset glandular functions, metabolic balance and also cause stomach distress. There is a growing awareness of the importance of emotional factor involved in the activities and efficiency of the cardiovascular system. All these reactions really depend on our personality, temperament, emotional stability and attitude, which ultimately determine our stress threshold. " Men are not disturbed by things, but by the views they take of them" Clinical psychologist, Elbert Ellis, suggests that some commonly held beliefs are irrational and self-defeating because they lead to unnecessary emotional distress. The most basic belief among them is perhaps that it is terrible and catastrophic when things and people (including ourselves) are not the way we expect them to be. Irrationality of this idea is seen by Ellis in two ways. One, things are

seldom awful or catastrophic (They are merely annoying and frustrating) two, it is self-defeating to turn our preferences and wants into absolute necessities. People who think in this manner tend to overreact with strong negative emotions of anger depression and fear, when things or people are not necessarily the way they are expected to be. External as well as internal stimuli may trigger our emotional responses. It is easier to identify the external events and situations that influence our emotional states and resulting behavior but it is more difficult at time to identify the source of internal distress. At a time or other, all of us may have felt anxious or 'down in the dumps' without knowing why.

PHYSICAL FITNESS

A physically fit individual will have the productive body development or neuromuscular co-appointment as it is regularly called and is likewise presented with the capacity to play out a given undertaking with high level of capability. The term wellness incorporates physical wellness, physiological wellness, and mental wellness, and cardiovascular wellness, social and profound wellness. Physically fit individuals can withstand weariness for longer periods and are better prepared to endure physical pressure. Numerous scientists unequivocally bolster the view that ordinary exercise assists with keeping a solid and sound heart and forestalls cardiovascular maladies. A physically fit heart pulsates at a lower rate and siphons more blood per beat very still. Because of ordinary exercise, a person's ability to utilize oxygen is expanded generously. To create and keep up physical wellness, lively exertion by the individual is required. Cardio-respiratory perseverance, quality, solid continuance, adaptability, force and readiness are the essential mixes of physical wellness. Physical wellness is considered as one of the most important resources and it has gotten a high need in all musings and activities. Current mentors signify their time in instructing during pre season essentially for guaranteeing continuance, quality and adaptability. These are improved via preparing.

RECENT DEVELOPMENT IN YOGA

These days yoga is turning out to be increasingly well known. It pulls in the consideration of the entire world. A large number of individuals the two people who know about the significance of self-improvement has received yoga as a piece of their life. Steadily, yoga is turning into a way of life, very nearly a design of the advanced world. Individuals embrace yoga as an instrument to keep the body and mind fit, to 8 fix maladies by improving elements of the fundamental organs of the body.

Yoga and yogic practices stir the internal quality of the body.

The wellbeing of our body and psyche relies on the sufficiency of the soundness of inward organs. Yoga is all inclusive and advantages individuals everything being equal. Yogic research has demonstrated its proficiency in adequately keeping up and for achieving the psycho physiological balance and passionate steadiness thus far as the utilitarian improvement is concerned, the yogic framework is maybe the best. In great former times, the resident of Rome had perceived that normal exercise and temperature would guarantee 'positive' way of life.

YOGA AND AEROBIC EXERCISES

Physical activities are redundant developments while yoga practice includes next to no development and just stances kept up for a while. Physical activities lay accentuation on solid developments of muscles though yoga restricts vicious developments. Yogic stances tone up the body and the brain though physical exercise influences for the most part the body. The caloric necessity in yogic asanas fluctuates from 0.8 to 3calories every moment while the caloric prerequisite of a physical exercise differs from 3 to 20 calories for each moment. The fundamental reason for physical exercise is to expand the flow of the blood and the admission of oxygen.

Rationale of Yoga for Promotion of Health, Fitness and Values

Yoga is of extraordinary significance to mind-body prescription in light of the manner in which it takes a gander at life. The yogic perspective on life is the best solution even composed for enduring harmony and satisfaction, which are free of outside occasions and conditions. Feeling is a Rajas guna of Prakriti, which is answerable for some sorts of ailment. Psycho physiologically, feelings follow up on our body through nerve center which controls ANS (Autonomic Nervous System) and the endocrine frameworks. Negative feelings like indignation, dread, eagerness, desire offer ascent to physical ailment where then again positive feelings like love, sympathy, fellowship, warmth and so on invigorate the to battle the pressure. Ailment because of negative feelings incorporates hyper acidity, hypertension, a sleeping disorder, menstrual unsettling influences, loss of craving and so forth. Yoga assumes a crucial job as the antiquated Indian mending craftsmanship. Old style Yoga is a study of human brain science. It takes a shot at three-aspect viz. mental, physical and social states bringing about improved wellbeing, lesser covetousness for ownership and proficient administration of human life. In conventional speech, all encompassing wellbeing was called satisfaction of four Purusharthas, viz., Dharma, Artha, Kaama, and Moksha through act of Swadharama. Dharma

alludes to precision in discernment, influence and conation.

THE FOLLOWING ARE THE MAIN KRIYAS

1. Neti (Nasal Cleansing)
2. Nauli Kriya (Churning of Abdomen)
3. Agnisar Kriya
4. Dhauti or Gaj Karn (Vomit Wash)
5. Shankha-Prakshalana
6. Basti/ Vasti (Yogic Enema)
7. Kapalabhati
8. sudarshankriya

OBJECTIVE

1. The examination was delimited to about four months of preparing project of yogic kriyas and oxygen consuming on chosen physiological profiles of diabetic patients.
2. The investigation was delimited to 30 male and 45 female subjects extending in age between 30 to 60 years.

RESEARCH METHODOLOGY

In this section the methodology embraced for the choice of subjects, choice of Criterion factors, Experimental Design, Reliability of information, Administration of test and assortment of information, and factual strategies for examining the information are portrayed.

SELECTION OF CRITERION VARIABLES

The accompanying Criterion factors were chosen based on achievability of cost and time: - Blood Glucose Estimation (BGE) Fasting, Blood Glucose estimation as long as 2 hours after organization of 50 gm of glucose orally, Systolic Blood Pressure (Resting), Diastolic Blood Pressure (Resting), Body Mass Index (BMI), Resting Pulse Rate and Respiratory Rate The information was gathered by administrating test for chosen physiological factors. Prior to gathering information and beginning of preparing program, the motivation behind the examination was disclosed to every one of the subjects. The Measurement of physiological factors were taken at before preparing program and after the exploratory time of about four months of term. The definite of test being utilized for gathering information is given beneath:

S.N.	Variables	Test	Unit of measurement
1	Blood Sugar level (Fasting)	Glucometer	mg/dl
2	Blood sugar level Postprandial	Glucometer	mg/dl
3	Systolic Blood Pressure	Sphygmomanometer	mm/hg
4	Diastolic Blood Pressure	Sphygmomanometer	mm/hg
5	Body mass Index (BMI)	Weighing machine & stadiometer	kg/m ²
6	Resting Pulse Rate	Pulse Count	bpm
7	Respiratory Rate	Respirometer	bpm

ANALYSIS

This part manages the factual examination of information being gathered from the example under investigation. The motivation behind the examination was to discover the impacts of yogic kriyas and oxygen consuming system on chose physiological profiles of diabetic patients. The subjects for this investigation were seventy five diabetic patients with age bunch 30 to 60 years of Bhiwadi city of Rajasthan. Out of the example of 75, there were 30 male subjects and 45 female subjects who were additionally separated haphazardly into three gatherings.

CONCLUSIONS

The test configuration was 'Arbitrary gathering Design' in which equivalent number of subjects for example n=25 were relegated arbitrarily to each gathering. The blood test (fasting glucose and postprandial glucose) of the patients was done in the pathology lab Star Hospital, Bhiwadi, Rajasthan. Based on clinical discoveries of the Fasting glucose and postprandial glucose of the patients, it was affirmed that they were the diabetic patient. Prior to beginning the treatment, the patients were given the information on advantages of yogic and vigorous treatment program. The autonomous variable, for example, Yogic Practices (Kapalbhati, agnisar Kriya and nauli) and Aerobics software engineer was allocated on the arbitrary premise to the gatherings. Alongside their standard diabetic drug one gathering subjects were furnished with the yogic kriyas comprising of kapalbhati, Agnisar kriya and Nauli for 50 minutes on every day. The Yogic kriyas were performed from Monday to Friday for five days in seven days.

REFERENCES

1. Erikson, Mellstrand, Peterson, Renstrom and Sevdmyr "Sports Medicine Health and medication a complete self-helf guide" pp-310
2. Gerard Tortora J, and Bryan Derrickson (2001). "Principle of Anatomy and Physiology". 11th edition 2006, P-660 Iyengar, B.K.S., Yoga – The Path to Holistic

Health. Dorling Kindersley Limited: Great Britain, p.24.

3. Jack H. Wilmore and Costill L. David: "Cardiovascular and respiratory function and performance, "Physiology of Sports and Exercise, 3rd Edition, Human Kinetics, p.p.220.
4. Kennedy A.J. (1976). Fitness a Way of Life, (New Delhi: TataMc Grow Hill Publishing Company Limited), P. 125.
5. Maffulli Nicola and Helms Peter (1995). Color Atlas and Text of sports Medicine, Spain mosby Wolfe), PP.89-90.
6. Masironi R. and Devolin H. (1985). PhysicalActivityinDisease Prevention and Treatment, (Italy PiccinNuova Libra), p. 8.
7. Mohan, A.G. (2002). "Yoga for body, breath and mind": A guide to personal reintegration, Boston, MA: Shambala.
8. Payne, Wayne. A and Halus, Dale B. (1986). "Understanding your Health". Missouri: Times Mosby College Publishing 1986, p.56.
9. Robson M. (1998). "Effect of Yoga on Flexibility and Respiratory measures of Vital Capacity and Breath Holding Time", Vyayam, p-56.
10. Satyapal and Aggarwal Dholan Dass (1996). "Yogasanas and Sadhana, New Delhi, Family Books Pvt. Ltd., pp. 30-63.

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