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Editorial

Dr Harish Dubey
Convener, One Day International Conference,
B K Birla College, Kalyan

B. K, Birla College of Arts, Science and Commerce (Autonomous), Kalyan is a multi-faculty premiere institution of higher education catering quality education to more than 11,900 students since 1972 in the historical city of Kalyan. The college is celebrating its Golden Jubilee year of its establishment along with birth Centenary year of Pujya Shri B. K, Birla Ji.

College has always believed in the holistic development of the students and always promotes extra and Co-curricular activities along with academic activities. Yoga and Sports has been its identity from several years.

In India 29th August is celebrated as National Sports Day to commemorate the birth Anniversary of Hocky legend Major Dhyan Chand. This year being a special year in the history of B K Birla College, on this day and Department of Gymkhana and Sports, BKBCK organised One Day International Conference on 'Perspectives of Yogic and Sports Science towards Healthy Living'. The conference provided a platform to the Yogic and Sports researchers and Scientist to deliberate their research and views on the different areas of these two fields.

It is great pleasure to listen from Mr. Baljit Singh, Hon. Joint Secretary, AIU, the Chief Guest for the inaugural function of the conference that Sports has attracted the attention of the younger generation. Now, the students feel of making career in Sports along with any other fields. Dr Naresh Chandra, the former Pro Vice Chancellor, University of Mumbai advocates to introduce Sports in the regular curriculum under New Education Policy. The deliberations reveal that Sports develop the physical as well as mental strength. Daily physical exercise is essential for everyone because exercise not only helps to stay healthy, but it also helps to improve their emotional fitness. It also develops leadership, discipline, decision making, self-esteem, cooperation and teamwork, Emotional Fitness, Social Life, Patience, Positive mentoring etc.

We believe that Sports should be a major part of the school and College curriculum because if students stay emotionally and physically healthy, they can easily focus on their studies. Students must participate in sports to increase confidence and mental alertness. Sports are important along with academics because it helps to teach various skills to students like leadership, patience, team efforts, and social skills.

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The power of reasoning, mental development, vocational specialisation comes from the academic education of the students. On the other hand, sports education not only teaches the students to maintain the physical stamina, but also the habit of obedience, discipline, the determination to win, willpower, etc.

Similarly, Yoga is also beneficial to a professional athlete as it positively contributes to the health and vitality of the body, strengthens internal organs such as the heart, lungs and liver and helps to maintain fitness and agility. Yoga also helps to reduce stress and anxiety, cultivate self-confidence and self-belief.

Therefore, it is necessary to understand the 'Prospective of Yogic and Sports Science towards Healthy Living'.

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Physiological Features of Middle-Aged Women and Need of Physical Fitness and it's Measurement

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Abstract:

Physical fitness is an important aspect of human life and it decreases with age. Physical inactivity and growing old accelerate the aging process. Aging is a natural process and it touches everyone. Many physiological changes occur with aging. In middle age during 45-60 years, people experience more age-related changes. Researchers found that age related changes are more noticeable in women than men. Menopause is normal physiological change occurring at woman's midlife. Research studies revealed that menopause affects the physical and mental health of middle-aged women and also affects the gross physical fitness level. The purpose of this study was to review the research studies on physiological features of middle-aged women and the need of regular physical activity for maintaining a satisfactory level of fitness. For this purpose, a systematic review on relevant studies were done. Initially 25 articles were selected from different databases out of which only 10 articles were found relevant. These articles concluded that middle aged women need to maintain an optimum level of physical fitness to manage the physiological and mental disturbances due to menopause and should have the knowledge & awareness about it's measurements to live independently and happily.

Keywords: Physical activity, Menopause, Aging, Fitness measurement.

Introduction:

General fitness is a part of overall health. The physically fit persons feel more alert and energetic to do daily activities. It begins at birth and should continue throughout a person's life. The strength of a nation depends upon the overall health of the people. Generally Physical Fitness is defined as the ability to carry out daily tasks without fatigue. According to census 2011, the population between the ages of 40 to 59 years were above .22 billion, with a total male population of .11 billion and female population .10 billion. Physical fitness declines with aging and women experience more rapid decline than men during middle age. Middle age period is a vital phase of life and it lies between younger and older adulthood. Sharifi et al. (2014) mentioned in a study that during middle age period, women face variety of problems such as decline in physical working capacity (PWC), financial problems, multiplicity of roles and responsibilities in society and family, family relationship, rebalancing work and personal life and some health hazards.

Menopause is an important phase that affects a woman's overall physical and mental fitness. It is one of the most significant event in women's life and elicits a number of physiological and psychological changes. Following deficiency of estrogen after the menopause women are more likely to suffer from osteoporosis, cardiovascular disease,

diabetes, hypertension, incontinence, Alzheimer's disease and arthritis as compared to men. Some disease, exclusively occur in women such as breast cancer, endometrium (uterus) and cervix. (Bandyopadhyay, 2021). Physical inactivity is considered to be one of the most important public health problems of the modern society. Functional fitness decreases gradually due to physical inactive lifestyle. Physical independence can be maintained at older age through moderate physical activity. (Butcher et al., 2008)

Indian women are very busy with their families. Most of them confined in family works. Since they are unaware, they seldom care for their health and fitness in respect to their daily work. They cannot pay attention to their physical fitness to perform all these duties. If they become aware about the importance of physical fitness, at least they may try to remain physically fit. It is presumed that the root cause of physical problems is the negative attitude of Indian women towards physical fitness. So the present study may provide the knowledge to middle aged women about their problems and possible solutions.

Methodology:

This paper is a systematic literature review on Experimental study in physiological changes of middle-aged women and the importance of physical fitness for healthy life. The search included relevant literature from 2005 to 2021. The search terms used in this study were Physiological features of middle-aged women, Need of physical fitness for middle aged women and Physical fitness testing tools for middle aged women. For searching the empirical studies, the database which were used as PubMed, Google Scholar and Research Gate. Experimental studies on physiological changes with aging and effects of physical exercise on middle aged women were included in this review study. After applying the inclusion and exclusion criteria 10 studies were finally selected for the review.

Results and Discussion:

Aging is a natural process in human life. It generates multiple physiological disfunctions. The changes can be categorised into following domains.

a. Hormonal Changes:

The most serious incident of the middle-aged period is menopause. Normally it takes place between the ages of 45 and 55 years in women. The median age of menopause is 51. (Zhuet et al., 2019). Menstrual cycle depends on hypothalamic and pituitary hormones. But a natural decline in reproductive hormones (FSH. LH, EETROGEN, POGESTRONE) fall out when a woman reaches between 40 to 50 years (Dalal & Agarwal, 2015). Menopausal symptoms are severely affecting quality of life in middle aged women. Most common symptoms during this period are sweating, hot flashes, sleeping problems, headache, joint pain, tiredness, mood swings, vaginal symptoms, urinary track problems physical and mental problems, musculoskeletal problems (Ayranci, 2010 & Chuni and Sreeramareddy, 2011). Sharifi et al. (2014) also found that physical health problems are highly prevalent among middle-aged women during menopause. Tseng et al. (2012) found in a study that physiological changes had direct impact on physical function. Camera et al. (2015) mentioned in his study that postmenopausal women had lower grip strength than perimenopausal women. In another study Cheng et al. (2009) found muscle strength and balance ability were poorer in postmenopausal women. It may occur due to level of estrogen decline during menopause. Bondarve et al. (2018) also found in his study that post-menopausal women had lower hand

grip strength and lower body power production than premenopausal women. In the same study he also mentioned that moderate physical activity counteracts the possible negative effect of menopausal factors on muscle strength and power.

b. Musculoskeletal Function:

Sarcopenia is one of the most important causes that adversely affects the physical fitness for elderly people. It is a condition characterized by physiological and morphological changes in skeletal muscle. In a study, a researcher found that skeletal mass and strength decline in a linear fashion and it starts between the ages 30 to 80 (Walston, 2012). Sower et al. (2005) found that almost 9% of middle-aged women had at least a 6 % loss of lean mass which is associated with sarcopenia. Lower extremity muscle strength is a crucial factor for physical performance in older age. Balance and agility greatly influenced by lower extremity muscles and affects the ability of elderly people to live independently. (Lee et al., 2015). Yoo. et al. (2018) reported that physical exercise is essential for muscle strength, endurance, immune function, and the cardiovascular system. Middle age is a critical period of life of women associated with bone loss. Thalkur & Singh, (2015 mentioned in their research work that one out of three Indian women between the age group of 50-60 years suffer from osteoporosis. Further it also found from this study that Indian women have an early age of onset of osteoporosis as compared to western counterparts.

c. Overall Health:

Depression and anxiety are widely prevalent among the middle-aged women in India. In a study Sing & Sing, (2006) reported that 54% of women participating in their study experienced moderate to high stress, 32 % moderate stress, moderate to high stress 44% moderate depression and 80% social dysfunction. Sharifi et al. (2014) also reported that middle-aged women suffered from high levels of psychological stress. The quality of cardiorespiratory system also decrease with aging. Diabetes is currently causing panic in the world. India has the second highest number of diabetic patients in the world after China. The reasons behind this are rapid urbanization, sedentary lifestyle, high-calorie diet, visceral adiposity, and high genetic predisposition. (Banerjee et al., 2020)

Need for Physical Fitness for Middle-aged Women:

According to WHO globally, 27·5% people are insufficiently physically active and not meeting the WHO norms. Women are less active than men. Physical fitness has been playing vital role for good physical and mental health since ancient period. Regular physical activity and exercise can help to stay healthy, energetic and independent as we get older. Elmagd, (2016) reported in his study that regular physical exercise reduces many physiological and psychological problems and also helps to decrease healthcare costs and utilization. It also plays a vital role in building and maintaining strong muscles and bones which prevent osteoarthritis, lean body mass, sarcopenia, osteoporosis.

Tool for Measuring Physical Fitness:

Physical Fitness level of an individual differs from age to age. Every individual needs a certain level of fitness to perform normal every day activities safely and independently. Physical fitness test also helps to know the fitness status or physical activity level of an individual. On the basis of this one can design safe and effective exercise programmes.

Tomezak et al. (2019) used Senior Fitness in his study to measure the quality of life of women 50-70 years. This test was developed by Dr. Robert Riki and Dr. Jessie Jones at Fullerton University. The test items of this battery measures aerobic fitness, strength and flexibility easily and effectively. Faldu & Sagar et al, (2020) used health related fitness and Functional performance test to evaluate the fitness level of Middle-aged women Bank employee. Alpha fit test battery also used for measuring physical fitness level of middle-aged women. This test battery was developed by Dr. Michacle Sjostrom at Karolinska institute, Europe. (Suni et al, 2009)

Discussion:

Now a days middle-aged women are facing many health-related problems and because of this they are gradually lacking in their physical fitness. Physical inactivity is more common among women and elderly individuals. It is very important to understand their physical condition which will help them to become more conscious about their health. It may be possible when they have the basic awareness & knowledge about the measurement of physical fitness. Kloubec, (2010) investigated that middle-aged woman are able to stimulate abdominal endurance, hamstring flexibility, upper body muscular endurance following 12 weeks of physical exercises for two session of 60 minutes duration/week. Sit-ups and push-ups improve strength and muscular endurance. Upper body endurance may be increased through push-ups.

On the basis of reviewed article, the following facts may be disclosed.

- Different studies showed that menopausal factors influence the mechanisms that govern general isometric strength and muscle power more strongly.
- Estrogens have an effect on multiple sites of woman body.
- Post-menopausal women have lower hand grip strength and lower body power production.
- Lower body power is an important determinant of women functional independence.
- Women are less physical active then men.

Conclusion:

Middle-aged women face many problems during this period of life such as hormonal changes, various family responsibilities, socio-economic crises, genders stereotyping etc. Physical activity promotes physical fitness and healthy life. A fit woman can properly manage her duties, responsibilities and can live an enjoyable healthy life. A developing country like India needs a low-cost and easy accessible test batteries to measure the physical fitness of middle-aged women to achieve the desired results.

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Efficient Healthy Lifestyle through Pranayama

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Abstract:

A healthy and wholesome body is very much needed to practice pranayama. To study and understand pranayama, one needs to know prana (air). Prana is an integral part of the whole body. How much do you know about the soul that accompanies you from birth to death? Or how much do you know about that? That is the question. Breathing is gross while prana is subtle. But you can't separate them. Breath is the covering form of life. So prana is the subtle form of breath. The movement and energy of the body is generated by the soul. That is why there is no life without life or without the existence of life, all these living beings are called animals. Prana is what makes the mind and sensations appear. Therefore, Prana is considered to be the elder brother of the mind. Even though the mind is invisible and invisible due to sleep, the soul is still present there. Pranayama means the dimension of prana means to hold one's breath. That is, we differentiate between the speed of breathing and holding the breath, it is called pranayama. The scope of the word prana is vast. Its form and meaning are wide. Prana is the life force, the life force that governs every element of the universe and also resides in the form of thought. Prana is related to mind, mind to intellect, intellect to leopard, leopard to soul, soul to paramatman. The purpose of doing pranayama is to connect the mind with the Supreme, that is, to do yoga. That is why the main purpose of pranayama is to stimulate, transmit, regulate and balance the life force in the body. Therefore, according to Maharshi Vyas, there is no other sadhana greater than pranayama. Pranayama removes all the defects and ignites the lamp of enlightenment. Pranayama removes all the defects in the body and senses just as all the defects in the metal are removed by burning in the fire. That is also what Manu has said. Pranayama is considered to be the fourth most important part of Patanjali Yoga. If any yogi is doing yoga except pranayama, then that yoga will not remain yoga. So there is no problem in understanding that pranayama is the soul of yoga. Pranayama is as essential for the purification of the mind as bathing is for external purification.

Keywords: Yoga, Pranayama, Health.

Introduction:

The air in the body is prana. But due to its place in the body and their different functions, this soul has been given different names. Prana, Apan, Samana, Udan Van are the main pranas. Nag, Kurma, Krikal, Devdat and Dhananjay are the sub-five souls.

Types of Pranayama:

There are many types of pranayama according to the objectives and nature of pranayama. It is not possible to make all kinds of interpretations in this place. However, it is necessary to study some of the important and necessary types for the seeker and from the point of view of stress.

1) Omkar:

Even though it does not fall into the category of pranayama, it is easier and more important to do pranayama from Omkara with a view to auspicious beginning of pranayama and clearing the way for breathing and giving pranayama a spiritual abode.

A) Action: Sit in one of the asanas of Padmasana, Siddhasana, Sahajasana or Swastikasana. Place the hand gesture on the knee. Back, spine, neck, head in a straight line, eyes slightly covered. Take a deep breath. Slowly release the inside air by parting the lips slightly. Make this sound as long as possible. The air in the chest is running out. When you feel like it, make a loud noise and wipe your lips as soon as the wind blows. Take a deep breath again. Do the same again. Do this 3 to 5 times. Stop at the end. Be calm with a calm mind. There are four types of speech. Vaikhari, Madhyama, Paschanti and Para. Vaikhari means speaking with the mouth. Madhyama means speaking through the throat. Paschanti means sound coming from the heart and Parvani means sound coming from the stalk of the bembi. The pronunciation of Omkara will initially come out of the mouth. Then in the middle voice. Then try to remove it from the stalk of the bembi through the back voice and due to its practice and effort. The voice of Vaikhari and Madhyamya will be heard by another. The voice of remorse will not be heard by another. That voice will be heard by you and the other voice will not be heard by you. But you will feel its vibrations. This can also be called the inner voice. This will create a magnetic electric current in your body and destroy the useless harmful current you have and will have a good supply of the required current. Therefore, as happiness, physical purity, mental, happiness is created in life, work force, memory, thinking power is increased and a new consciousness is obtained.

2) Anulom Vilom:

Pranayama is performed only after pulse purification. The circulatory system is called the pulse. These nadis need to be purified. It is beneficial to start pranayama from this pranayama, since anulom-vilom is the easiest, so assimilate it quickly a) Action: Choose any sitting position. Take a deep breath with the left nostril, closing the right nostril with the thumb of the right hand. When inhaling, close both nostrils and do an internal bowel movement. Then keep the left nostril closed. Slowly exhale through the nostrils with the thumb relaxed. Then inhale with both right nostrils and close both nostrils. Then exhale slowly through the left nostril. Then inhale through the same nostril. Do four such cycles. Practice should be increased further. The ratio of 1: 4: 2 should be kept b) Benefits of this pranayama:

2) It is a necessary and superior type of pranayama. All lung diseases are eliminated. It purifies the blood well by getting maximum oxygen to the blood.

3) Bhramari:

The word Bhramari is derived from the word Bhramar. This pranayama is accompanied by an omkar roar. This pranayama is called bhramari pranayama as it sounds like a beetle.

A) Action: Sit in Padmasana or Siddhasana. Take the spine, neck, head in a straight line. Tighten the thumbs of both hands in both ears. Close both eyes and eyelids with the index finger of both hands, place the middle finger on the nasal bone and the ring finger on the lower lip Now take a deep breath through your nose and fill your lungs with air. Then exhale slowly, making a nasal beetle-like sound. It became a cycle. Practice the inner beetle in

the future. The beetle's voice will be harmonious and effective in a way. Avoiding the air while making an illusory sound means that it should come out by pushing and touching the brain briefly.

B) Benefits of Pranayama:

1) Increases the speed of blood circulation and generates heat in the body.
2) The mind becomes happy, the flow of knowledge begins, asceticism manifests.
3) Samadhi begins easily by making progress in Kumbhaka.
4) Bramari Mari Pranayama stimulates the nerves and cells in the brain to become efficient.
5) Insomnia, brain disorders are eliminated,
6) Purification of semen causes semen to rise and convert into weight. That energy shifts to the millennium.
7) The larynx becomes clear and the sound becomes sweet.
8) Meditation mentality is formed.
9) Inner sounds can be heard. Brahmananda is also attained.

4) Kapalbhati:

Kapal means forehead, forehead or bhalpradesh and Bhati means illumination, Kapalbhati pranayama increases the brightness of the forehead. Karma is one of the overs mentioned in Hatyoga. Hence this pranayama is called Kapalbhati pranayama. Kapalbhati Bhastrika is a pre-preparation of pranayama.

A) Action: Sit in Padmasana, Siddhasana or Sahajasana. Do Jnanmudra with hands on knees, back, neck, head in a straight line, eyes closed. Keep your face happy. Then exhale loudly through the nostrils. The act of breathing is easy. But the exhalation should be loud and fast. The abdominal push should sit on the back while exhaling. Initially release with 15 to 20 breaths. Increase this amount later, people with colic and heart disease should not do this pranayama.

B) Benefits:

1) The forehead, airways and respiratory tract are clean and clear.
2) Cough accumulated in the trachea is expelled.
3) Asthma goes away.
4) Adequate supply of oxygen to the lungs and alveoli and resistance to pathogens like tuberculosis.
5) Carbon dioxide gas is released to purify the blood to a greater extent.
6) The heart becomes efficient.
7) Respiratory system, blood circulation, digestive system becomes efficient.
8) The restless and agile mind becomes calm.
9) Prana Apan Vayu moves upwards and goes towards Brahmarandhra.
10) Improves memory and thinking ability.

5) Bhastrika:

In Sanskrit, Bhatya Bhatia is called Bhakhika. In this pranayama it is called Loharachya. Like rice, air is taken in and released. So bhakhika pranayama for this pranayama

A) Action: Sit in Padmasana or Siddhasana. Keep body, neck, head straight. Place the palms on the knees with the palms of the hands. Keep your eyes slightly closed with your mouth closed. Now inhale vigorously through both nostrils. Exhale just as hard. This action

should cause the lungs to expand and contract. A cycle of inhaling and exhaling is completed. This type should be done in the morning and evening in cold weather. It should be done in the morning when it is cold in summer.

B) Benefits:

1) Disorders of rheumatism, bile and phlegm disappear.
2) Asthma, T.B. Adi disorders disappear.
3) It cures lung disorders, heartburn and gas.
4) Eliminates sore throat and indigestion.
5) Stimulates blood supply and purification.
6) The nerves flowing through the brain are purified and their obstructions are removed.
7) Endocrine glands get a lot of oxygen due to oxygen conduction.
8) Inda, Pingala and Sushumna are the three nerves that are purified.
9) If the body needs artificial heat, heat can be generated through this pranayama. There is a very close relationship between yoga and pranayama. Pranayama requires meeting. The meeting is by seat. Asana requires pranayama. The scriptural asana cannot be complete without pranayama. Properly supplemented with laxatives and laxatives combined with yogasana has good effects on both body and mind. Due to this, the seeker attains Paramatma. Can happen.

Main Organs of Pranayama:

1) Supplement: Inhalation
2) Antar Kumbhak: Inhalation and retention - including Kumbhak
3) Laxative. Exhale
4) Exhale: Hold your breath after exhaling. Aquarius only

Benefits of A / Pranayama:

1) Even though impure air is expelled through normal treatment, some air remains accumulated in the lungs. All the unclean times in that air come out with pranayama.
2) Due to the supply of pure air to the lungs and the mixing of pure air in the blood, the blood becomes more and more pure and the circulatory system is stimulated.
3) The nose and the entire respiratory system are clean.
4) Air ducts become flexible and proper massage improves efficiency.
5) Muladhara Chakra, Swadhishthan Chakra and Manipur Chakra become efficient due to good stimulation.
6) As all the chakras in the body are stimulated, the supply of life force to this chakra is good.
7) Memory and thinking power are stimulated and their capacity increases.
8) The mind wandering here and there becomes calm and stable.
9) Reduces fat and psychosis.
10) Stomach, liver, bladder, small and large intestines become efficient.
11) Disappears and the inner voice is heard. Cognitive enhancement increases mindfulness.
12) Self-realization takes place with the increase of spiritual power and spiritual bliss.
13) Practicing Pranayama continuously helps in observing Brahmacharya.

Conclusion:

Animals that have a higher rate of respiration per minute also have a shorter lifespan. But as the rate of respiration decreases, so does the lifespan. Turtles have the lowest respiratory rate. His life is the longest neck. I mean, it can only mean one thing, that is, if we increase its time by doing pranayama, if we bring it under control, won't it save our breathing? And won't you have time to breathe the rest? That is, will life not increase? Humans breathe 21,600 times in 24 hours and about 15 to 16 times per minute. We can reduce the number of breaths and save by reducing the length of the suppository and laxative. This will give you extra time to breathe. That means your life is going to increase. So it is safe to say that pranayama prolongs life.

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Effect of Yogic Exercises on Academic Stress of Visually Impaired School Children

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Abstract:

The purpose of this study was to know the Effect of Yogic Exercises on Academic Stress of visually Impaired Children. For this research researcher has select 40 boys (n= 40) aging 13 to 15 years from Pragati Andha Vidyalaya, Badlapur, Dist. Thane, Maharashtra. Researcher has used the non-equivalent group design, Group A, (YogaMeditation group n = 20) treated as experimental group and Group B (Non-YogaMeditation Group N = 20) treated as a control group. Research has conducted in three phase, Phase I (Pre-test), Phase II (Training for 6 weeks), Phase III (Post Test). To know the status of Academic Stress, Academic Stress Inventory for School Students by Dr. Basant Bahadur Singh and Seema Rani (2008) has been used. After posttest Group A (experimental group) has gone through the Integrated Yogic Exercises Training for 6 weeks for 60 min. daily. Post Test has been conducted after the 6 weeks training. All the scores were analysis with the help of One-Way Analysis of Covariance (ANCOVA).

Introduction:

Visually impaired person can get entry in this world but are unable to see the cosmic light, and many more things for which they deprived of. Late Braille Louis developed a system of printing and writing that is extensively used by the blind and the name after him Thus visually impaired person can read and through the Braille language. In this sense visually impaired are as good as like a normal individual.

Stress is defined as burdens, pressures, anxieties and worries. Everyone has had it or has it in one point in their high school life. The importance of tile students in the education process is unquestionable. This is because of all the human factors in the educational system, the students occupy the key position and it is only through them that the ultimate process of education takes place. The students today are facing with new challenges in education calling for greater effort from students. In addition, there are heavy demands made by the society on students to perform various roles, many of which are undefined, inconsistent and unachievable in the present socio-cultural, economic and bureaucratic contexts of our society, causing heavy stress on students mainly high school students. Unfortunately, stress is a common part of life as we begin the new millennium, something few of us can avoid altogether.

Objective:

To compare adjusted Mean Scores of Academic Stress of Visually Impaired School Children of Yogic Practices Group and Non-Yogic Practice Group by taking Pre- Academic Stress as a covariate.

Hypothesis:

H0: There is no significance difference in adjusted Mean Scores of Academic Stress of Visually Impaired School Children of Yogic Practices Group and Non-Yogic Practice Group by taking Pre-Academic Stress as a covariate.

Methodology:

The following methodological steps were taken in order to conduct the present study.

Non-Equivalent Control Group Design:

The subjects were distributed in two groups. Group A is experimental group and Group B is control group. Each group consists of 20 subjects. Experimental group were given Yogic Exercise training Program for 6 weeks.

Sample:

To conduct the present study 40 visually impaired boy's students from Pragati Andha Vidyalaya, Badlapur, Dist – Thane, Maharashtra. Were selected as a sample. Age group is 13 to 15 years.

Tool:

Academic Stress Inventory for School Students by Dr. Basant Bahadur Singh and Seema Rani (2008) has been used to conduct the data.

Procedure:

The inventory is devised to identify the stress problem of secondary school students. The following procedure is adopted for developing this questionnaire. A total of 60 items are then given to 12 Psychologists and 7 Educationists using the interval consistency method. Only those items are chosen on which the rating is the same amongst all the 19 experts. Using this principle 40 items are selected from a total of 60 items. These are then standardized to a group of 400 pre-secondary students who are 6-15 years old.

Analysis of Data:

The analysis of the data collected by the researcher, before and after the training intervention has been presented in this chapter. The data is analyzed by one-way ANCOVA. Change in mean scores of pre-and post-test of experimental and control groups comparison was done by one-way ANCOVA. The data is presented, analyzed and interpreted in the following manner.

Treatment wise comparison of adjusted mean scores of academic stress by taking pre-academic stress as covariate of visually impaired school children of yogic practices group and non-yogic practice group

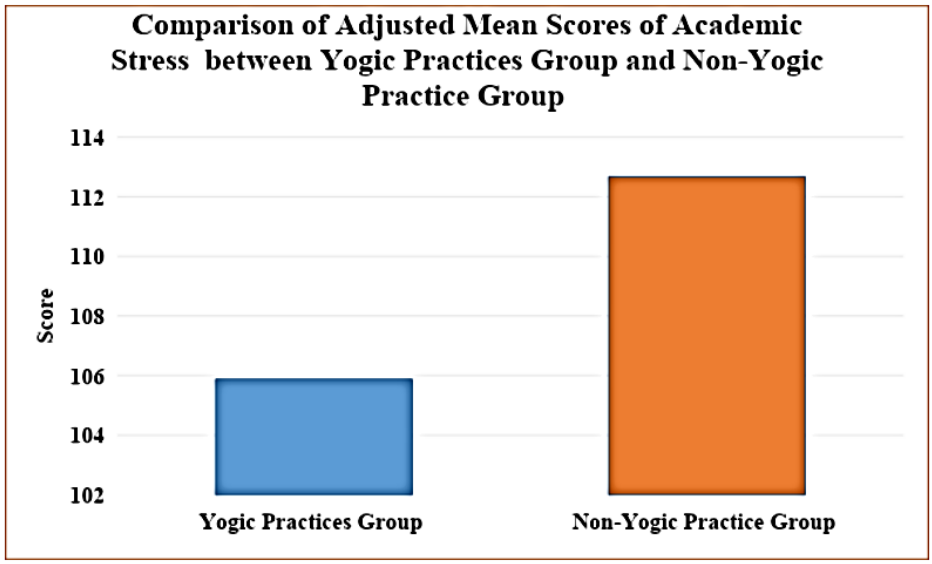
The first objective was to compare adjusted Mean Scores of Academic Stress of Visually Impaired School Children of Yogic Practices Group and Non-Yogic Practice Group by taking Pre-Academic Stress as a Covariate. The data were analyzedwith the help of One Way ANCOVA and results are given in Table.

Table 1. Summary of One Way ANCOVA of Academic Stress by Taking Pre-Academic Stress as Covariate of Visually Impaired School Children of Yogic Practices Group and Non-Yogic

Source of Variance	df	SSy.x	MSSy.x	Fy.x	Remark
Group	1	458.78	458.78	103.84	P<0.01
Error	37	163.48	4.42		
Corrected Total	39				

From Table it can be seen that the adjusted F-value is 103.84 which is significant at 0.01 level with df=1/39 when Pre-Academic Stress was taken as covariate. It shows that adjusted mean scores of Academic Stress of Yogic Practices Group and Non-Yogic Practice Group differ significantly when Pre-Academic Stress was taken as covariate. Thus, the Null Hypothesis that there is no significant difference in adjusted mean scores of Academic Stress of Visually Impaired School Children of Yogic Practices Group and Non-Yogic Practice Group by taking Pre- Academic Stress as covariate is rejected. Further, the adjusted mean score of Academic Stress of Yogic Practices Group is 105.88 which is significantly lesser thanthat of Non-Yogic Practice Group where adjusted mean score of Academic Stress is 112.67. It may, therefore, be said that Yogic Practices Group was found to be effective in improving Academic Stress of Visually Impaired School Children than Non-Yogic Practice Group Where Pre- Academic Stress was taken as covariate.

Figure 1. Comparison of Adjusted Mean Scores of Academic Stress between Yogic Practices Group and Non-Yogic Practice Group of Visually Impaired School Children Impaired School Children



Result and Discussion:

In case of Academic Stress of Yogic Practices Group found superior to Non-Yogic Practice Group hence the Hypothesis sought that **H0**. There is no significant difference in adjusted Mean Scores of Academic Stress of Visually Impaired School Children of Yogic Practices Group and Non-YogicPractice Group by taking Pre-Academic Stress as a Covariate is rejected.

Conclusion:

The present experiment, within limitations warrants the following conclusion; Yogic Exercises were useful in improving Psychological Variable Academic Stress of Visually Impaired Children significantly.

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Yoga for Sports Performance Enhancement

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Abstract:

Yoga has many mental and physical benefits which will enhance an athlete's performance. It also can help relieve stress, encourage relaxation, and support healthy sleep patterns. These benefits are useful for athletes who are unsafe to heavy exertion. From increasing flexibility to putting together mental resilience necessary for competition, yoga offers a wealth of advantages for athletes. Read on to find out about a number of the research supporting the advantages of yoga for athletes, the way to come up with a routine, and therefore the advantages of working with a yoga professional.

Yoga can help improve your flexibility, balance, and coordination which affect positively on enhance performance. Plenty of research supports the advantages of yoga for athletes. Yoga has always been about detection our inner balance. But there's one relatively new sect of yoga that a lot of people have yet to learn: yoga as a way of Enhancing athletic performance. largest research database within the world on the efficacy of yoga to enhance athletic performance. yoga can do for an athlete is, it can help to improve greater body control, both at high and low speed developing neuromuscular control, through the application of specific yoga techniques, it actually trains the muscles to respond to rapid or unexpected directional changes and same amount of muscular control can be translated from yoga to sports.

Keywords: Athletes, Performance, Training, Competition, Enhance.

Introduction:

The purpose of this paper, is to find out how yoga can enhance sports performance. Today, yoga is a mainstay on the program schedules of most health clubs, personal training studios and corporate fitness centres. Unlike many other sorts of training, the practice of yoga unfolds over time to reveal some ways of physical benefits and private improvement. Now, many people are finding the great number of ways in which yoga are often wont to better sports performance from enhancing mental concentration and enhancing flexibility and balance to preventing normal injuries and honing skills during a specific sport. Whether by making a total educational program for elite athletes or by simply integrating a some of yogic activity in an existing group fitness class, fitness professionals in the least levels can use yoga as an effective cross-training tool for their athlete clients.

The practice of yoga was developed in ancient India and has advance over thousands of years be for. A way to change consciousness and mental focus into the spiritual in order to go to enlightenment. This process of spiritual transformation is indeed the main purpose of the practice of yoga. Essentially, yoga is geared towards bringing body, mind and spirit into harmony. Both top athletes and weekend warriors can benefit from this kind of balance by practicing yoga. This is very true when athletes have pushed their bodies to the limit, resulting in weakness or injury. Yoga can restore a weakened body and build a copy. Yoga poses, breathing work, and inner concentration can help rebalance, strengthen, and restore overworked muscles and joints. During this recovery process, athletes can increase the

longevity of their careers and built an inner balance that will remain lifetime. The balance of mind, body and spirit can be a primary philosophical principle of yoga. It is the real way to respect the body. Athletes normally find that yoga conditioning not only lengthens tight, shortened, and fatigued muscles, but also make mind relax and brings clarity to the mind. Some athletes begin exercising to rehabilitate an injury and gain flexibility, stability, and strength. To increase our capacity to concentrate and relax our mind. In fact, with the correct practice, yoga can enhance all arena of sports performance, from stamina, strength to speed, while improving your overall health and wellness. Regular yoga practitioners find that our physical condition deeply affects both our mood and our mental capacity. that by practicing physical yoga postures, they can become more peaceful and therefore achieve greater concentration. They also confine that by coming to the body to its normal state, they can significantly enhance physical performance, which is one of the reasons many of today's top athletes consider this a factor while training.

Yoga Practice Enhance:

- Strengthens deep animal tissue forestalling or minimizing injury.
- Creates AN overall body flexibility. will increase vary of motion and mobility.
- Dramatically enhances physical balance by developing the athlete' awareness of his body' centre place, therefore keeping their body balanced in action, moment by moment, giving the power to pass though or prevent falls, whereas enhancing lightsomeness.
- Enhance circulation, massages internal organs and glands for betterment of health.
- The yoga breath circulates and detoxifies the body fluid to hurry up recovery time from coaching fifteen present faster, eliminating fatigue.
- The yoga breath builds up will increase one' vitality energy.
- Enhances mental focus, concentration, mental clarity, can power, and determination.
- Dissolves pre competition anxiety and stress. Helps to balance & manage emotions that would cloud focus, concentration & judgment.
- Trains the jock gets and stays within the mental zone.

Yoga Exercise and Sports Specific Enhancement:

A) Enhanced Strength

Regular and continuous practice of various yoga asanas has helped to increase strength and improve muscle mass, especially involving multiple muscle groups. Core stability significantly prevents overuse injuries through increased support, but on the other hand, underdeveloped muscles surround the most commonly used muscles, resulting in stronger weight gain and optimal functioning.

B) Balance

Because of the constant practice of yoga, coordination and balance have improves significantly. Why is it important? Excellent balance and coordination means greater control on body, which in turn leads to great technique and shape. Every athlete devotes his career to self-improvement, whether he is engaged in swimming, golf swing, running and jumping, or wrestling.

C) Flexibility

Yoga continually improves joint and muscle flexibility, which is important for the overall structural strength of the body. Increased flexibility in joints and muscles results in a greater range of motion or an increase in the intensity of a particular movement or range of motion. swimmers with a more limited range of motion. On the contrary, this increased range of motion provides a greater ability to build the strength of a specific muscle group by increasing overall strength. can be done with any movement and while there is some controversy over the advisory strength of over-stretching especially for runners.

D) Making the mind relax

The ability to relax the mind of stress is an important advantage of yoga practice. Exercise is used as a tool to improve breathing control, to improve attention and concentration, to think clearly and make clear decisions. A valuable tool in any sports field. Mental exercise in any sport will teach you how to control your emotional state so that levels of excitement and anxiety do not interfere with your work.

E) Enhancing Muscle Efficiency

One of the things that happens in yoga in general is that you get a sense of general movement, but for an athlete with special and special structural needs, the stability of function and structural integrity of movement in the joints can be improved and the muscles around joints also respond to this. Thus, it helps to create a more flexible and economical mechanism. Basically, this means that yoga improves the strength of not only your muscles, but also your joints.

F) Enhance Lung Volume

By increasing your breathing rate, you increase your VO2 max, as well as your stability and ability to focus, focus and act on your nerves. These are all important factors for an athlete's performance. Respiratory factors are often neglected by athletes.

G) Stress Relief, Lactic Acid Release

Everyone knows that stretching is a great way to release muscle tension and release the most powerful substance in training, lactic acid. And yoga is probably the best kind of stretching. If a muscle is tense, it needs energy to keep it tense. If we improve joint mobility and stability, the athlete actually releases energy to improve performance. For example, this will create contrast for cycle riders compared to their usual riding posture. This will help relieve muscle and connective tissue tension and release the lactic acid that the body stores and builds up during long periods of cycling.

H) Injury Prevention and Rapid Recovery

An injured athlete can learn to re-train stability or movement patterns on the carpet, which not only allows him to activate latent muscle posture, but can also help him develop sharper perception. Athletes tend to return to training too quickly. Yoga, typical of low-intensity sports, helps athletes feel like they are still in the training zone without overexerting themselves. One of the most effective lessons athletes can learn through yoga is to respect your body' strengths and limits. this data is vital to stop sports injuries. Yoga could be a powerful training program tool that may facilitate athletes develop higher body awareness. Responding to their messages is a means of abidance the body and not pushing it to its limits.

Conclusion:

As highlighted above, yoga is just as important in sports as others think it helps us in different ways and at different levels of an athlete's life. People need to have a high level of concentration, a calm and controlled mind, yoga can help an athlete to calm down and control their thoughts even in the midst of stress and adversity. Yoga can play an important role in enhancing mind control and concentration, which help athletes perform at their best.

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The Impact of Media on Mental Health during Covid-19 on Rural People

Miss. Rajashri Deore: T.Y.B.A.

Introduction:

Media are the communication outlets or tools used to store and deliver information or data. The terms refer to components of the mass media communications industry. Such as print media, publishing the news media, photography, cinema, broadcasting, digital media and advertising.

Media technology has made viewing increasingly easier as time has passed. Children today are encouraged o use media tools in school and are expected to have a general understanding of the various technologies available. The internet is arguably one of the most effective tools in media. People closer together and created new online communication. However, some argue that certain types of media can hinder face to face communication.

In large consumer, driven society, electronic media such as television and print media such as newspapers are important for distributing advertisement. Media are nowadays tools for sharing knowledge around the world.

The media influence so many people's behavior nowadays. Information can be spread after new clicks of a button, whether it is true, false, speculation or gossip. The media can manipulate, influence, persuade and pressurize society, along with even controlling the world at times in both positive and negative ways, mentally, physically and emotionally. Society is influenced by media in so many ways. It is the media, which keep people updated and informed about what is happening around them and the world that everyone draws something from it. Media is considered as mirror of the modern society, infect, it is all media which shapes our lives.

In media world it had a positive and negative sides because as ti had an influence over generation from ages, some fake news make a special impact over the society to make crimes and make people react fast to the issue without thinking once, it this social media like face book, twitter, whatsapp play a major role recently in India one fake news made village people kill one innocent person and injured friends of that person.

In today's world, the medias the most powerful entity on earth. They have the power to make the innocent guilty and to make the guilty innocent, and that's power. Because they control the minds of the masses. So it's in the hands of the people to take control of their minds.

The media played a worldwide role in coronavirus disease tracking and updates through live updates dashboard. Media reinforced illness-preventing guidelines daily, and people were encouraged to use telehealth to meet their healthcare needs. Mass media has an imperative role in today's world and it can provide a unified platform for all public health communications, comprehensive healthcare education guidelines, and robust social distancing strategies while still maintaining social connections.

As the corona virus pandemic rapidly sweeps across the world, it is inducing a considerable degree of fear, worry and concern in the population at large and among certain groups in particular, such as older adults, care provides and people with underlying health condition.

In public mental health terms the main psychological impact to date is elevated rates of stress or anxiety. But as new measures and impact are introduced especially quarantine and its effect s on many people's usual activities, routines or livelihoods level of loneliness, depression, harmful alcohol and drug use and self harm behavior are also expected to rise. Advantages of Media include that it allow information to be dispersed quickly and that it allow people to learn about cultures other than their own. Disadvantages of media include that it can result in the spred of misinformation and the development of bad values.

Objectives:

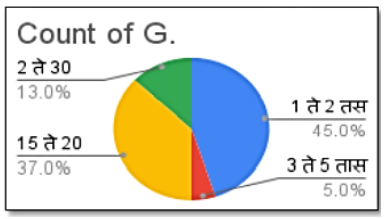
1. To find Out the Effect of Media during Covid-19
2. To find out the Impact of Media on Rural People during Covid-19
3. To find of the Mode of media is mostly used in rural area during Covid-19.
4. To find out the Mental Health of Rural People during Covid-19.
5. To find out the Misconception during Covid-19.
6. To find out the Impact of Media on Mental Health on Rural People during Covid-19.

Methodology:

This study has been conducted on the above 40 year aged population by the online survey through Google Form. For this study 100 People were selected from Rural Area.

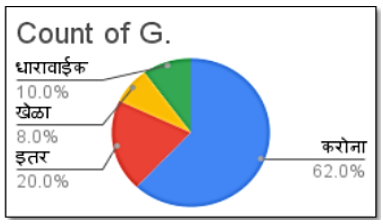
Results and Discussion:

Figure.1 Which of the following media do you use?



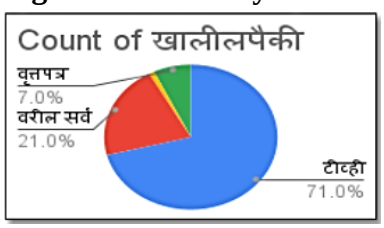
From the 100 individuals who responded to the questionnaire, 71.0% percent recorded having used T.V, while 21.0% percent used other mode of Media. 7.0% percent, with smaller groups using Newspapers. (Figure 1).

Figure.2 How much time they spend throughout the day for the media?



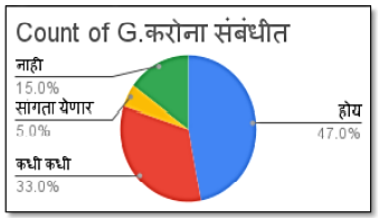
From the 100 individuals who responded to the questionnaire, 45.0% percent recorded having used social media consistently for 1 to 2 hours daily, while 37.0% percent used it for 15 Min.to 20 Min. daily. The number of users who utilized social media for 2to 3 hours daily was 13% percent, with smaller groups using it 3 to 5 hours. (Figure 2).

Figure.3 What they see or hear on the media?



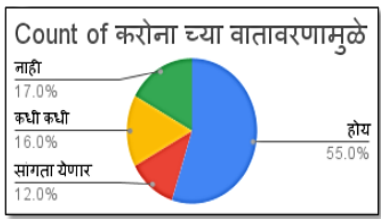
From the Sampling 8.0% People Watch Sports, 10.0% Peoples Watch Serial, 20.0% People Watch Other Entertainment Programme and Large Number of People watch Corona related News. (Figure 3).

Figure.4 Do you feel overwhelmed when you hear the news about Corona?



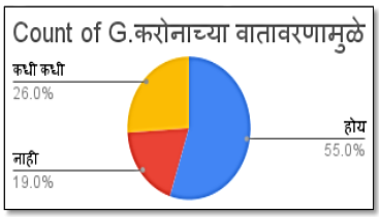
This Graph Show that 47.0% People are under pressure while watching the news of Covid-19 (Figure 4).

Figure.5 Does Corona's environment feel stressful in life?



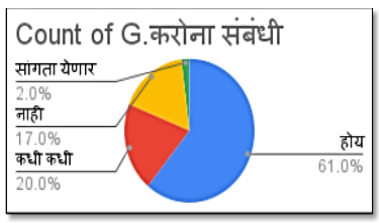
This Graph Show that 55.0% People are feels Very stressful during Covid-19 (Figure 5).

Figure.6 Is there an atmosphere of unrest in the house due to Corona's atmosphere



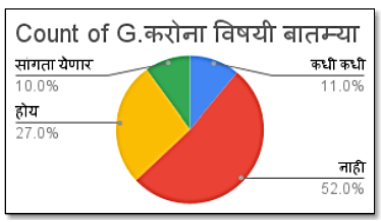
This Graph Show that 55.0% People are agreed that Due to Covid-19 an atmosphere in house is very stressful. (Figure 6).

Figure.7 Do you get upset when you suddenly hear some news about Corona?



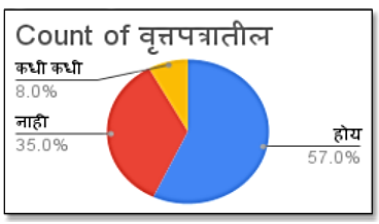
This Graph Show that 61.0% People get upset when they hear the news about Covid-19 (Figure 7).

Figure.8 Can you stop worrying when you hear the news about Corona?



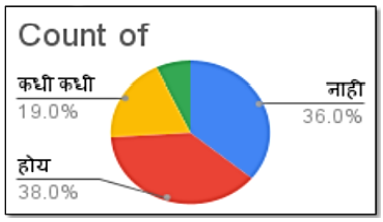
This Graph Show that 52.0% People Don't stop Worried when they hear the news about Covid-19 (Figure 8).

Figure.9 Do you read the news about Corona in the newspaper in Detail?



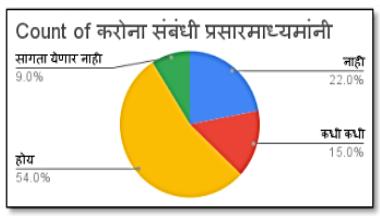
This Graph Show that 57.0% People are read news about Covid-19 in detail. (Figure 9).

Figure.10 after hearing or reading the news of Corona, do you feel its effect on your mind for a long time?



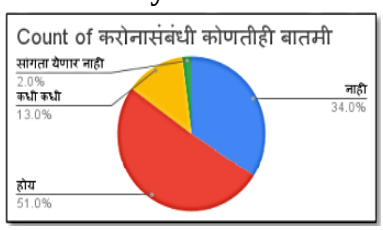
This Graph Show that 38.0% People feel loner effect on mind after hearing or reading news about Covid-19. (Figure 10).

Figure.11 Do you immediately follow any instructions given by the media regarding Corona?



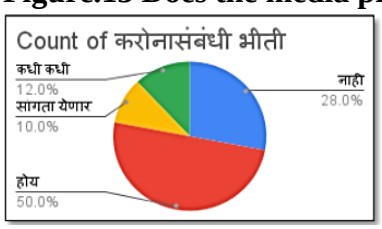
This Graph Show that 54.0% People immediately follows any instruction given by the Media about Covid-19. (Figure 11).

Figure.12 After hearing or reading any news about Corona, do they verify its authenticity?



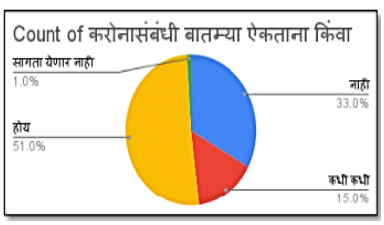
This Graph Show that out of 100 people 34.0% People after hearing or reading any news about Covid-19, they don't verify its authenticity (Figure 12).

Figure.13 Does the media play a role in raising fears about Corona?



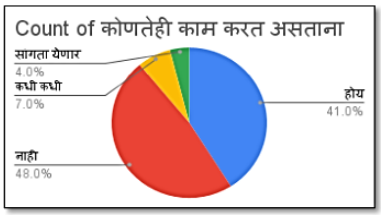
This Graph Show that 50.0% People agreed that the media play a role in raising fears about Covid-19 (Figure 13).

Figure.14 Do you get angry if there is any interruption while listening or watching the news about Corona?



This Graph Show that 51.0% People get angry if there is any interruption while listening or watching the news about Covid-19 (Figure 14).

Figure.15 If you hear the news about Corona while doing any work, can you concentrate on the work you were doing before



This Graph Show that 48.0% People don't get concentrate after hearing or reading Covid-19 News. (Figure 15).

Conclusion:

Research literature did not show any data of Maharashtrian Kabaddi players in relation anxiety with respect to their age, sex and area of living. The research revealed that status of anxiety of Kabaddi players differs according to age, sex and areas of living. Moreover, prediction of the players' personality is possible on the basis of the achievement scores in anxiety. This investigation, thus, contributes to generate new data in this direction for enriching research literature exclusively for the Kabaddi players in Maharashtra.

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Yoga & Meditation for Rapid Healing Benefit in Covid-19 Pandemic Period

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Abstract:

Aim of this paper is to bring awareness about the incredible force that we have instinctively gifted from this universe. Our mind is a storehouse of these forces. One can uproot all the physical-mental disease, pain by utilizing this force. This paper presents the easy method to activate our 'life force' so we can rapidly cure our-self from these Covid-19 (physical & mental) damages. Yogasana, Meditation & Mantra's healing power has been scientifically proved that one can heal them self in those persistent diseases where the medicines has failed. Yoga aasan, meditation and mantra activities are linked with human mind& mind itself has a pharmacy so here the author are prescribing three peels for Surya Namaskar (Yogasana) Placebo & Mantra chanting meditation for beginner as a alternative treatment to naturally get quick relief from corona effect.

Keywords: Body, Heal, Mind, Yoga, Chakra, Body Mind, Suryanamaskar, Covid-19, Yoga Meditation, Om Mani Padme.

Introduction:

In this paper author has emphasized on Yoga and different types of meditational practices for this Covid-19 pandemic situation. Yoga is a mid-way to unite body to the mind. Yog asanahas was performed through the body for the mind, so it is cleared that yoga is for mind rather than the body. It has reported that the 80 to 90 percents deceases caused by the disturb mind, in this sense one should get relief from their mental & physical suffer, only after get controlled over on self emotions, and this is the core secret behind of performing yoga & meditation. Ancient literature of India asserted performing Yoga & Meditation benefits for well-being. The practitioner's perception and discourses attracted the world health sector's interest toward this subject and that outcome was plenty ofresearchstudy hadcarried out in this area to check out the fact & reliability of yogasana & meditation notable is all this research supported toancient literature assert even though the researcher are still fascinated toward this mysterious therapy,to reveal the secret researcher employ advanced equipment to understand how the body and brain work during performing yoga & meditation and they succeed to find that our mind has an ability to cure our body its own, after this scientific analysis, Yoga & Meditation is seen as alternative to the health care challenges, we facing today.

Covid-19 virus has been showing their long term affect on human health weather the symptoms was mild or serious, it has been reported that after the recovery from covid-19 still some viruses remain inside the patient body so the patient constantly stay in risk of covid-19 attack. Older people and people with serious medical condition are the most likely to experience linger Covid-19 symptoms, but even young, healthiest people & the sports persons are not exceptional from corona virus affect.Common sign and symptoms that liner over time include: fatigue, shortness of breath or difficulty breathing, cough, joint pain, chest pain, memory-concentration, sleep problems, muscle pain or headache, fast or pounding hart beat,

depression or anxiety, fever, dizziness, bone dead, immune disorder and many more unrevealed-unpredicted symptoms are there. Covid-19 virus has an ability to rapidly multitude themselves in stronger version, whenever they met to new environment they develop new variant which is more powerful and harmful for human immune cells that we have been clearly seen in 1st, 2nd & 3rd wave patterns. Worldwide advanced biotechnological labs medical teams' efforts still not able to detect virus and virus killer drugs, still after passing 1½ year and the virus is continuously damaging worldwide human health, In the current state, we need fast relief or self created corona protective shield so we will able to keep our self safe from corona virus effect & causes, & this protective shield is Surya namaskar asana & meditation.

It has been reported that during recovery & quarantine phase physical activity can worsened the symptoms cause to perform physical activity one should bring their body temperature in rising level where all the muscles & organs has to get engaged for energy production to sustain activity therefore it bring overload on body and mind, whereas body & mind already lose their original fitness ability due to corona. Recovery phase is very essential to regain our physical & mental strength but if we push ourselves in physical activity in this stage can worsens the symptoms so physical activity is not recommended for recovery or sickness phase.

Yoga asana activity has to carry out without giving any types of stress on body and mind. Yoga is a gate way to join body with the mind. Yoga aasana strengthen the organsin gentle way; improve over all physical fitness, digestive function, blood pressure etc. It has seen that daily performing yoga give immediate result on hart problems even though by practicing yoga genes mutation procedure happened in bodyso by the help of Yoga aasan we can rapidly recover our damaged bodily cells.

Surya namaskara aasan is amalgamation of Yogasana and Pranayama consist of 12 aasan that are performed in cyclic sequence. Surya namaskar is a full body work out its not only stretches our body but also work on our cardiovascular system along with improving blood circulation. Surya Namaskar aasan is well known for stimulating our main 7 Chakras whish are our body energy centers and known to regulate emotions, if they get blocked, we may experience physical or emotional symptoms related to a particular chakra. This chakras help in detecting any profoundly rooted issue in body and help in healing old emotion and physical wound. To function at best chakras need to stay open or balanced. Chakra is spinning wheel of bioenergetics activity which is run along our spine, this energy centers located in major branching of human nervous system which interact with physical body through the endocrine and nervous system. Each 7 chakra is associated with particular part of the body and particular function within the body control by nervous system and endocrine gland so activating seven chakaras through Surya Namaskar aasana we can heal our body and mind.

Surya Namaskar Aasan's benefits for Body & 7 Chakra which start at the root of our spine and extended to crown of our head

1. Pranam asana- it help calming down our body and mind by activating Anahata Chakra (Heart)
2. Hastauttan asana- help in stretching our chest as well as abdomen and surges the energy flow toward the upper part of our body, activate Vishuddhi Chakra (Throat)
3. Hastapad asana- improves digestion while also enhancing our blood flow to the brain, activate Swadhisthana Chakra (Sacrum)

4. AshwaSanchalan asana- stretches our spine further along with quadriceps and iliopsoas muscles. It also stimulates our abdominal organ, activate Ajna Chakra (Third eye)
5. Parvatasana- make our arm and legs stronger and relieves varicose veins. Also stretches calf and spine muscles, stimulate Vishuddhi Chakra (Throat)
6. Ashtanga Namaskar- improves body posture, reinforces back muscles and spin, stretches shoulder and chest activate Manipur Chakra (Solar Plexus)
7. Bhujangasan- strengthen chest, arm, legs activate Swadhinsthan Chakra (Sacrum)
8. Adho Mukha Savasan- it relieves tension from back and spine, stimulate Vishuddhi Chakra (Throat)
9. Keep up the cycle order, repeat.

Meditation:

Our mind and body has massive healing power normality, the mind itself has a pharmacy but to utilize this ability one should have to train in meditation techniques. But during these days no one in stable mental state to learn meditation techniques so substitute option is a Placebo technique. Placebo means giving positively, determinedly activation on brain. One should use this method during performing Shav aasan, during this aasana we should create a positive thought in mind, and get believed ourselves that the practicing Surya namaskar is working as a peel for our body and mind which helping us to get back all the fitness. That hope, optimism, and enthusiasm activated "life energy" when the healing power activated then the true cure will take place, Placebo is about creating a strong connection between the brain and body, it involves a intricate neurobiological reaction that includes everything from increases in feel good neurotransmitters, like endorphins and dopamine to greater activity in certain brain region linked to mood. Emotional reactions, This Placebo technique give us fast therapeutic benefit.

Chanting:

Om Mani Padme Hum:

Chanting is directly bring positive effect on ours brain, the brain has the power to heal are body and mind. Our brain has five types of waves Gamma, Beta, Alpha, Theta and Delta all these waves have different types of frequency which differently effect on our thoughts. Fearness, anxiety, depression etc. are because of these waves by creating perfect waves we can come out from all the disease. Brain waves are produced by the synchronized electrical pulses from a large number of neurotransmitters communicating with each other simultaneously. Different types of waves induce certain sympathetic frequencies by creating vibrationin neurotransmitters we can achieved desirable effects: like achieving calm, control blood pressure, lucidity of thoughts, immunity from outside disturbance achieving soothing alertness, happiness, peace, bliss and enlightenment.

Om Mani Padme Hum:

Mantra is made of frequencies that are known to generate influential vibrations when chanted, each syllable of mantra comparing it to therapeutic/ healing effect. Study shown chanting this mantra generate positive energies within the body through mystical vibrations. This mantra enhanced cognitive effect in organisms without auditory apparatus where the interaction assumed to be taking place at a cellular and biochemical level. Another study revealed that playing Om Mani Padme Hum music in back ground stimulate Delta waves,

these waves experience in deep dreamless sleep and in very deep transcendental meditation. Delta waves linked with deep healing and rejuvenate process. The same positive effect also seen in tense parents those infant was admitted in children care unit. After listening this mantra chanting they reported they started to feel relax able to take sleep and feel positivity within self. So we can say this mantra chanting or listening too can help us to take deep sleep and deep healing.

Conclusion:

Practicing Surya Namaskar, following Placebo & prescribe Mantra chanting techniques will help covid-19 positive & sick person to rapidly regain fitness & their work related skills. These three techniques Surya Namaskar, Placebo and Prescribed Mantra are easy to practical approach and positivestrength technique for mind. Strength of mindleadsus toward eminent life. As Healthy body-mind is the goal of all therapies.

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COVID-19 Impact: Challenging Times for Sports

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Abstract:

In India, even organising training camps became a task. Some elite athletes aren't keen on taking risks and are happy to coach at their home or in nearby academies. Training in touch sports, especially, has become a task, with norms of social distancing in situ. At the National Institute of Sports (NIS), boxers are still not sparring, and therefore the focus has been on building their aerobic capacity and strength training. But India's high-performance director Santiago Nieva had said earlier that at some stage, sparring will need to start as boxers tend to lose the thought of the space. What meaning is that the fundamentals of coaching in some sports can't be done away with? At this moment, the athletes are either frightened of attending camps or not having the ability to resume full-fledged training in camps.

Keywords: Covid-19, Sports Challenges, Budget, Tournaments, Grassroots Development.

Introduction:

The present scenario of Indian sports is very challenging. Tons has changed over the last six months in India and around the world, but athletes' success still depends on one key factor - training. Athletes are trying to seek out their own way, all of them, during COVID-19, to return back strongly. While Manasi is rediscovering a replacement skill, another Para Olympian swimmer Suyash Jadhav is busy training during a pond using his own unique methods. However, despite these unique attempts by various Indian athletes to stay themselves in shape during the pandemic, the resumption of all sports within the country remains a foreign reality, because of the disease. At the Nationals of the kabaddi in February-March in Jaipur, there wasn't an in of space left at the venue to observe the Vikash Kandolas and Naveen Kumars. That sight seems a forgotten reality immediately. The new normal is here but can Indian sports resume during this new normal? There's no clear answer thereto as we approach the eighth month of the COVID-19 and therefore the country continues to ascertain a surge within the number of cases and with no full proof decide to tackle it.

Importance of Subject:

All players travelling for sports events, he stayed during a bio-secure bubble which he found a touch challenging courtesy its restrictions. It is definitely challenging immediately under a bubble, staying during a hotel where you'll either erode the restaurant of the hotel or the space service. You can't exit of the hotel aside from getting to the court. You've got to be wearing a mask all the time. These times are new for everybody. Some days can get frustrating, staying in one place, not having the ability to travel anywhere. But that's a method to urge tennis back. To know where each and each player is at the tournament. How they will start running events at various different parts of the planet," Bopanna added.

However, in India, even organising training camps became a task. Some elite athletes aren't keen on taking risks and are happy to coach at their home or in nearby academies. Training in touch sports, especially, has become a task, with norms of social distancing in situ.At the National Institute of Sports (NIS), boxers are still not sparring, and therefore the focus has been on building their aerobic capacity and strength training. But India's high-performance director Santiago Nieva had said earlier that at some stage, sparring will need to start as boxers tend to lose the thought of the space. What meaning is that the fundamentals of coaching in some sports can't be done away with. At this moment, the athletes are either frightened of attending camps or not having the ability to resume full-fledged training in camps.

Hosting a Tournament in India:

While a replacement thanks to resume sports is being adopted and rediscovered across the planet, in India, the primary major multi-team tournament that's expected to require place - Indian Super League - remains without a date. The IPL, post deferment, shifted to UAE because the government couldn't give permission to carry the event here. National Games, which were alleged to hold in October, are postponed. India's domestic cricket season might not even happen. India men's team was alleged to play within the Asian Champions Trophy in Bangladesh but that also stands cancelled due to the pandemic. India Open badminton which was alleged to happen in March this year, are often held in December but it's also subject to government clearance which is subject to COVID situation within the country. The boxing national camps have begun but coaches haven't any idea once they can start sparring and which is that the next tournament the boxers are participating in. On 10 September, the Badminton Association of India cancelled the national camp for Thomas and Uber Cups as SAI wanted the players to travel in seven-day quarantine, a thought rejected by players and therefore the association.

In such a scenario, one wonders what percentage leagues and competitions would be ready to start in India within the coming few months? And what does it fancy organise one? Nandan Kamath, co-founder GoSports Foundation, said only a couple of big tournaments might be hosted in India within the near future, those "who could afford" to create a security net, bio bubbles etc. Understandably, money plays an enormous role here.

"Sport might be impacted by societal changes that we've seen and are likely to ascertain, including a scarcity of trust in, and reprioritisation of, large gatherings and activities. It'd be a short time before we see full stadiums again. Elite sport might specialise in a couple of sports which will afford all the security protocols, bio bubbles, etc. within the near term. Aside from 2-3 of the most important leagues many of the others could be non-starters," said Kamath.

The words seem truer as we see the increase within the number of cases. Hiren Mody, Group vice chairman of Chennaiyin FC and supreme Ping-Pong (UTT), concurs with Kamath's views. "ISL is investing heavily in creating a secure bio-bubble. Since there are lives at stake, domestic organisers should organise events just one occasion a secure bio-bubble or suitable preparations are made. We should always not forget that this is often a marathon and not a 100-metre dash," Mody told First post. What must be underlined here is that the investment needed for bio-secure bubbles and considering the way pandemic has affected sports in India, the survival of these sports which do not have massive support are going to be difficult.

Financial Impact on Athletes:

With no competitions happening, the livelihoods of athletes are affected also. In August, India's women footballer Dalima Chhibber had shown her worries over lack of funds in women's football in coming months because of COVID-19. Women football remains in its growing years and with governing bodies lacking funds, other stakeholders prioritising other big tournaments, women's football might not be a priority for several .Same with women's cricket. Not that their financial situation is as bad as women's footballers, but when it involves prioritising, they also seem to lag behind. While BCCI is making IPL happen, in between plugging during a few women's T20 matches, there's no concrete plan in situ for women's team, with their tour to England standing cancelled thanks to coronavirus. Mody believes the depression will affect the non-cricket sports more." With the economy severely affected now, sponsorship revenue in non-cricket sports will suffer. So it's important for us to be before the curve. Costs will need to be re-aligned, those which were good-to-incur might enter must-incur and people that were earlier must-incur will move to good-to-incur," he said. Kamath says the role of foundations, institutions, and boards are critical here intrinsically a crisis may have a generational impact on athletes. "The role is going to be to seem at the non-obvious and to try to to the difficult things, including sustaining livelihoods, keeping talent (sporting, coaching, off-field) in sport through subsequent 2-3 years. Otherwise, a brief time crisis could have a generational impact," he said.

Sports Budget:

With India's economy in distress and economists doubting quick recovery within the coming months, the allow sports in India can also be reduced hugely next year, with the government looking to specialise in other key areas during or during a post-pandemic world. The allow 2020-21 was Rs. 2826.92 Cr, during which more was spent on the Khelo India Programme, which is aimed toward grassroots development of sports and there was a big decline within the funds to National Sports Federations and Sports Authority of India. The allow the 2020-21 cycle might not see an increase or actually even see an extra decline, knowing where Indian economy stands today. Kamath agrees that budget will surely take successful but demands are going to be high. "I would be surprised if there wasn't successful, given other national priorities at the instant.

Grassroots Development:

Grassroots development in sports is additionally expected to be severely affected as many academies and schools won't be organising tournaments and training camps for the youngsters for the fear of the virus. The financial factor also will play its role, and Kamath resonates with this apprehension, calling it a serious challenge. "Grassroots sports depend on the flow of funds down from major events and from philanthropy. Both these face major challenges. it'll require a concerted effort to ascertain balanced development at a time when most organisations are going to be that specialize in direct revenue generation and prioritising these."Mody also called it a lost year for youngsters, saying that it's better to be safe than sorry when it involves kids.

Conclusion:

The approaching 12 months are going to be hard for Indian sports and for the stakeholders, whether the athletes, the academies, boards, organisers, broadcasters etc. Some

believe that this pandemic will just be a blip in India's growth story as a sporting country. However, one cannot look past the role of finances within the upliftment of some sports in India, kabaddi, being the simplest example. When BCCI, the richest cricket board within the world, talks about cancelling their domestic tournaments thanks to COVID-19, one can easily gauge the effect of the pandemic on other sports.

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Effect of Six Week Aerobic Dance on Health-related Physical Fitness of College Girls

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Abstract:

Dance aerobics is an exercise that combines rhythmic steps of aerobics with graceful dance movements. In numerous researches related to fitness, health, recreation and training, the effects of various kinds of aerobic exercise training on improving the functioning of the human body, body composition, motor abilities, psychological characteristics and cognitive abilities was cited. It is also the ability to endure stress, which is of great importance for one's health. The prime purpose of the study was to find out the effect of six-week aerobic dance on health-related physical fitness of college girls. The source of data was 40 female students of BA and BCA students of D.C.P.E., Amravati and their age were ranging from 18 to 25 years. Purposive Random Sampling method was adopted for the selection of subjects. On the basis of literature, it was hypothesized that Six-week aerobic training will have significant effect on the selected health related fitness components. The health-related physical fitness components selected for the study were Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition which was measured by Flexed- Arm Hang, Bend Knee Sit ups, 600 Yard Run/Walk, Sit and Reach Test and Skinfold Measurement Test respectively. 't'-test was used to find out the significant effect of aerobic dance on Health-Related Physical Fitness of girls if any. To test the hypothesis the level of significance was set at 0.05. The results of the study showed significant effect on the Muscular Endurance, Cardiovascular Endurance and Flexibility after six weeks of aerobic training.

Keywords: Aerobic Dance, Health Related Physical Fitness.

Introduction:

Since inception, health and physical fitness played a vital role in the existence of human beings. Chalking out of the term “Survival of the fittest” gives the best example of how much health and fitness meant. Any nation’s progress lies in the hands of the people, who are healthy and physically fit. To ensure a happy and effective living, developing physical fitness is a must which is achieved by involving in physical activities. People who are healthy and physically fit hold the key to their country's progress. Physical fitness, which may be gained by participating in physical activities, is essential for a happy and productive life. Physical activity is necessary for a child's formation of a healthy personality, which is dependent on the opportunities for a child's mental, physical, social, and spiritual development. Physical activity has long been praised for its benefits to health and leisure. It also supplies the young energy as well as care for the old. Physical activity and movement have existed since the dawn of time. It took on a variety of functions, ranging from a struggle for survival to a struggle for excellence. Inactivity will kill you; exercise is the means to an art, a vigorous and long life. Exercise, according to many people, makes them feel better and calmer. A number of researches have demonstrated that as a result, people's psychological and physical well-being improves.

Muscle strength is only one aspect of overall fitness. Muscular strength, like cardiovascular fitness, muscular endurance, flexibility, and body composition, can give a variety of health benefits. Muscular strength is defined as the maximum amount of force a muscle can create in a single effort and is usually measured in kilogrammes (maximal effort). Gender, age, and inherited physical characteristics all influence the amount of muscle strength that can be produced. Muscles support the bones while also allowing movement. Legs, back, abdomen, chest, and shoulder muscles offer the strength needed to stand up straight and maintain proper posture. Strong muscles allow you to do the things you need to do every day.

An athlete must train her muscles to resist exhaustion in order to improve physical endurance. Muscle endurance is improved by increasing the amount of time a muscle spends contracting against resistance rather than raising the weight lifted. After a maximum-strength-building period, a muscular endurance training programme should be implemented (high weights, low repetitions), because a muscle's strength determines how much power it can exert during muscular endurance training, the stronger it is, the more force it can exert. Muscle failure should not be the goal of muscular endurance exercise. Exercise must reflect the problems that an athlete anticipates to face in competition in order to increase athletic endurance. There are various types of muscular endurance, each of which is used by different athletes depending on the needs of the sport.

Cardiopulmonary endurance is a test of how well your heart, lungs, and muscles work together to keep your body active for a long time. Participating in a regular aerobic exercise programme can help you increase your cardio respiratory endurance. Cardiopulmonary fitness improves a person's health in a variety of ways.

The different range of movements in a joint or series of joints, and length in muscles that cross the joints to induce a bending movement or motion are commonly referred to as flexibility. It differs between individuals, especially when it comes to multi-joint muscle length. Exercise can help promote flexibility in some joints to a degree, with stretching being a prominent component.

Dance aerobics is a form of exercise that blends rhythmic steps of aerobics with beautiful dance motions. High-impact workouts, low-impact exercises, step aerobics, and water aerobics are the four types of exercises. High-intensity exercises involve rapid jumping movements that are timed to the beats of the music being played. The second style of dance aerobics is low impact, which involves less jumping and more footwork that is timed to the beat of the music being played. Water aerobics is done in waist-deep water, whereas step aerobics is done on a raised platform. For roughly 20-30 minutes, a dancing aerobic exercise is performed. With 4 or 8 counts, the steps are executed in a rhythmic manner. Dance aerobics is an entertaining activity that helps in strengthening the body, and gives energy to carry out day-to-day activities effectively and efficiently.

Purpose of the Study:

The prime purpose of the study was to find out the effect of six-week aerobic dance on the health-related physical fitness of college girls

Hypothesis:

On the basis of literature, it was hypothesized that Six-week aerobic training will have significant effect on the Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition of College Students.

Methodology:

The sources of data for the present study were Forty (40) female students of BA and BCA department of D.C.P.E., Amravati. The sampling technique used was Purposive Random Sampling method and the age of subjects was ranging from 18 to 25 years. On the basis of literature, it was hypothesized that Six-week aerobic training will have significant effect on the selected health related fitness components. The health-related physical fitness components selected for the study were Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition which was measured by Flexed- Arm Hang, Bend Knee Sit ups, 600 Yard Run/Walk, Sit and Reach Test and Skinfold Measurement Test respectively. Raw data were arranged systematically in tabular form for further statistical treatment. 't'-test (independent and dependent) was used to find out the significant effect of aerobic dance on Heal Related Physical Fitness of girls if any. To test the hypothesis the level of significance was set at 0.05.

Results:

Findings of the below Table-1 reveals that there is no significant difference in Muscular Strength and Body composition between the Pre and Post-test performance of Experimental group as the obtained t- values of 1.483 and 1.149 respectively is less than the tabulated t-value of 2.093 at 0.05 level for the 19 degrees of freedom.

It is understood from the findings of the table that there is significant difference in Muscular Endurance, Cardiovascular Endurance and Flexibility between the Pre and Post-test performance of Experimental Groups as the obtained t-values of 9.037, 11.978 and 5.086 respectively is greater than the tabulated t-value of 2.093 at 0.05 level for the 19 degrees of freedom.

Findings of the table also indicates that no significant difference is observed in Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition between Pre and Post-tests performance of Control group as the calculated t-value of 0.056, 0.58, 0.211, 0.48 and 0.006 respectively are much lower than that of calculated t-value of 2.093 at 0.05 level for the 19 degrees of freedom. Means of pre and post-test of Experimental and Control groups has been shown graphically in Fig-1.

Findings of below Table-2 reveals that there is no significant difference in Muscular Strength and Body Composition between the Control and Experimental groups of Post-test performance, as the obtained t-values of 0.321 and 0.014 respectively is less than the tabulated t-value of 2.024 at 0.05 level for the 38 degree of freedom.

The findings also reveals that there is significant difference in the Muscular Endurance, Cardiovascular Endurance and Flexibility between the Control and Experimental groups of Post-test performance, as the obtained t-values of 2.09, 2.591 and 2.107 is greater than the tabulated t-vale of 2.024 at 0.05 level for the 38 degrees of freedom. Comparison of Post-tests means of Control and Experimental groups has been shown graphically in Fig-2.

Discussion on Findings:

Findings the table indicates that no significant difference is observed in Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition between Pre and Post-tests performance of Control group. It may be attributed to the fact that Control group subjects didn't receive any treatment (6-week Aerobic Dance) like the Experimental group did. Absence of training led to unchanged fitness status of the individuals

of the control group. As the normal routine of the subjects didn't involve any such activities and as they were not familiar with Aerobic Dance or any similar activities, they were not in any position to involve in such activities unlike the individuals from the experimental group did. Apart from Aerobic Dance, other physical activities were also absent from their lifestyle as they were not from physical education and sports backgrounds. Therefore, such results might have occurred in the study.

The findings showed no significant differences for the variable muscular strength and body composition among the pre and post-test means of experimental groups. It may be because aerobic dance is such a type of training which did not involve movements or activities which demands excessive strength of muscles. No external equipment was used for treatment like gym training which improved the strength of muscles. Dance aerobics is such an activity that it only requires coordinated and rhythmic movements done matching to the music being played in the background, so the activity didn't demand efficient usage of muscle strength which is why such results might have occurred in this study.

Body composition was another component which didn't showed any significant change after the treatment. One of the reasons can be treatment duration. This experimental study was performed only for Six weeks, i.e, roughly a minimum of 42 days was the span of training given to the subjects. Considering the previous background of the subjects, such type of activities might have been new to their lifestyle. Another reason is the seriousness the candidates given to the training programme. Significant progress doesn't take place if the work done isn't sincere and serious and as the students were not from sports background, the honesty of students while undergoing the treatment might have influenced the result. Because of these reasons, such results might have occurred in this study

The findings also revealed significant differences among the pre and post-test means of experimental group for the variables Muscular Endurance, Cardiovascular Endurance and Flexibility. Aerobic dance training program was charted in such a way that it targeted muscle groups to work for prolonged period of time. During the training session, muscles exerted fatigue and tiredness but still they were made to perform till the end which compelled the muscles to act under symptoms of exhaustion. Even when they were tired, aerobic dance kept the subjects in motion by the energetic background music which was used for the treatment. Such activities demand the muscles to work for prolonged periods and though repeated practise for six weeks, which may lead to the development of muscular endurance of the subjects

It was evident from the findings that aerobic dance training led to the development of cardiovascular endurance. It may be attributed to the fact that taking part in such like activities demands higher efficiency of supply of oxygen and nutrients throughout the body. As mentioned above, the music kept the participants moving under conditions of fatigue, the situation demanded the heart, lungs and different muscles to work together as an integrated unit to achieve the raising demand of the body. Different body was in motion which also ensured efficient flow of blood to the organ systems thereby causing effective and efficient oxygen and nutrition transport. The subjects used to involve in the aerobic dance training daily for six weeks and over time, due to repeated practice they might have developed the fitness component.

The subjects also showed improvement in flexibility after six weeks of aerobic dance training. It may be due to the type and range of movements they went through while they were undergoing the aerobic dance training. Aerobic dance requires different movements

consisting of various parts of the body and many of such joints were inactive in normal lifestyle. By introducing such movements along with the motivation acquired from music playing in the background, repeated practise witnessed wider range of movements and thereby the subjects might have developed better range of motions around their joints than before. The pattern of movements undergone in the treatment were very much different from their normal routine and these movements were very much challenging for their previous physique. Hence, such results might have occurred in the study.

Conclusions:

1. No significant change was observed after Six week of aerobic dance training on the components of Muscular Strength and Body Composition.
2. Aerobic dance training programme of six-week duration significantly improves Muscular Endurance, Cardiovascular Endurance and Flexibility of college girls.

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Table 1. Comparison of Pre and Post-Test Data on Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition of College Girls of Experimental and Control Group

Variable	Test Group	Mean	Difference between Post and Pre test scores	Standard Error of Difference between the Post and Pre-Scores	t-Ratio
Muscular Strength	Experimental	Pre 108.9	30	20.235	1.483
		Post 110.4			
	Control	Pre 108.75	1	17.779	0.056
		Post 111.93			
Muscular Endurance	Experimental	Pre 27.1	48	5.311	9.037*
		Post 29.5			
	Control	Pre 27	4	6.899	0.58
		Post 27.2			
Cardiovascular Endurance	Experimental	Pre 115.85	121	10.102	11.978*
		Post 109.8			
	Control	Pre 115.9	3	14.237	0.211

		Post 117			
Flexibility	Experimental	Pre 13.06	10.4	2.045	5.086*
		Post 13.58			
	Control	Pre 12.93	1.2	2.502	0.48
		Post 12.68			
Body Composition	Experimental	Pre 13.19	1.506	1.311	1.149
		Post 13.12			
	Control	Pre 12.91	0.007	1.198	0.006
		Post 13.12			

*Significant at 0.05 level Tabulated $t_{0.05(19)} = 2.093$

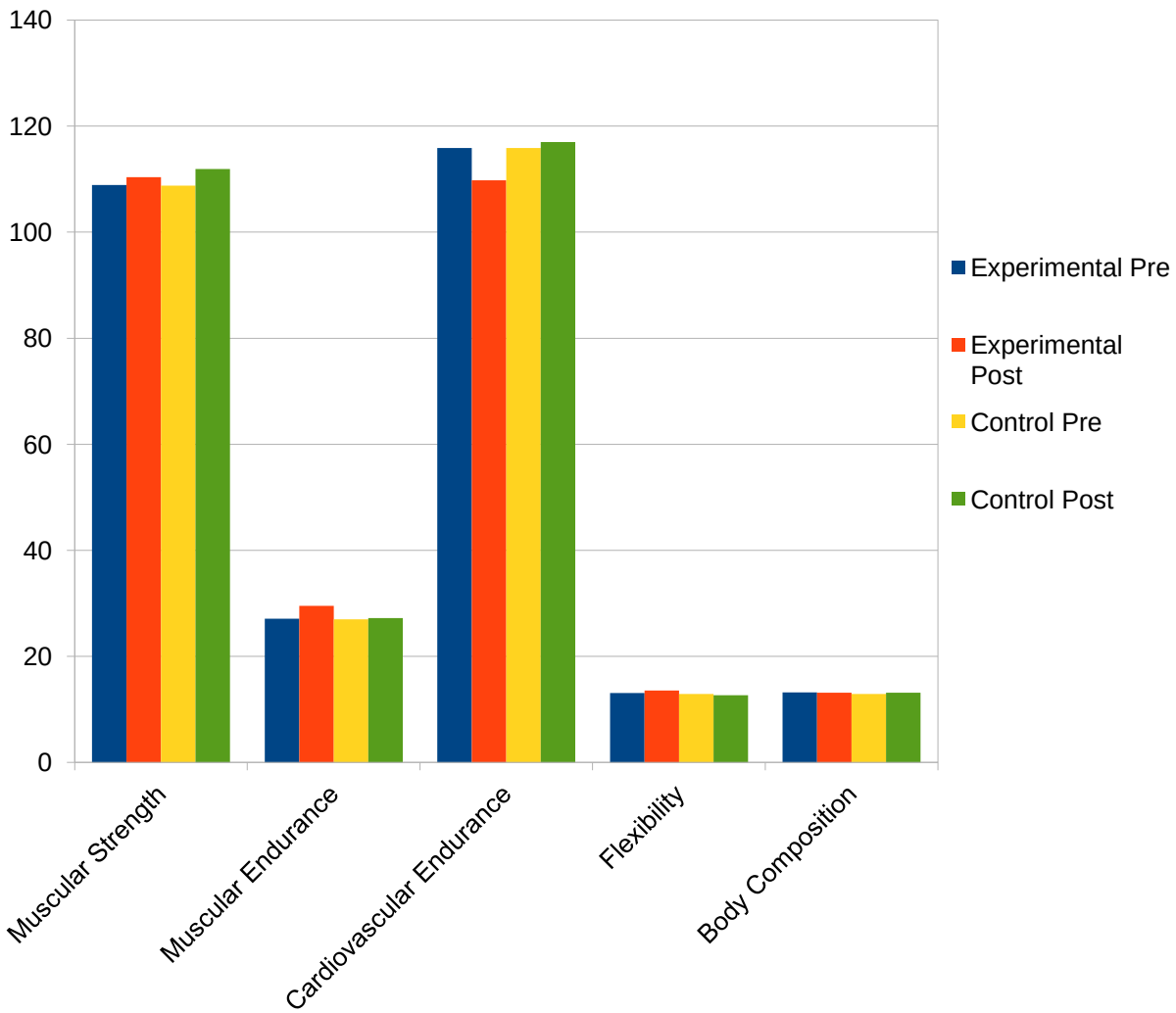

Figure 1. Comparison of Means of Pre and Post Tests of Experimental and Control Group for the Data on Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition of College Girls

Table 2. Comparison of Post Test Data on Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition of College Girls of Experimental and Control Groups

Variable	Group	Mean	Standard Deviation	Mean Difference	Standard Error	t-Ratio
Muscular Strength	Control	111.933	13.703	1.533	4.778	0.321
	Experimental	110.4	16.394			
Muscular Endurance	Control	27.2	3.607	2.3	1.1	2.09*
	Experimental	29.5	3.348			
Cardiovascular Endurance	Control	117	8.832	7.2	2.779	2.591*
	Experimental	109.8	8.746			
Flexibility	Control	12.68	1.382	0.895	0.425	2.107*
	Experimental	13.575	13.03			
Body Composition	Control	13.124	1.266	0.006	0.443	0.014
	Experimental	13.118	1.522			

* Significant at 0.05 level Tabulated $t_{0.05(38)} = 2.024$

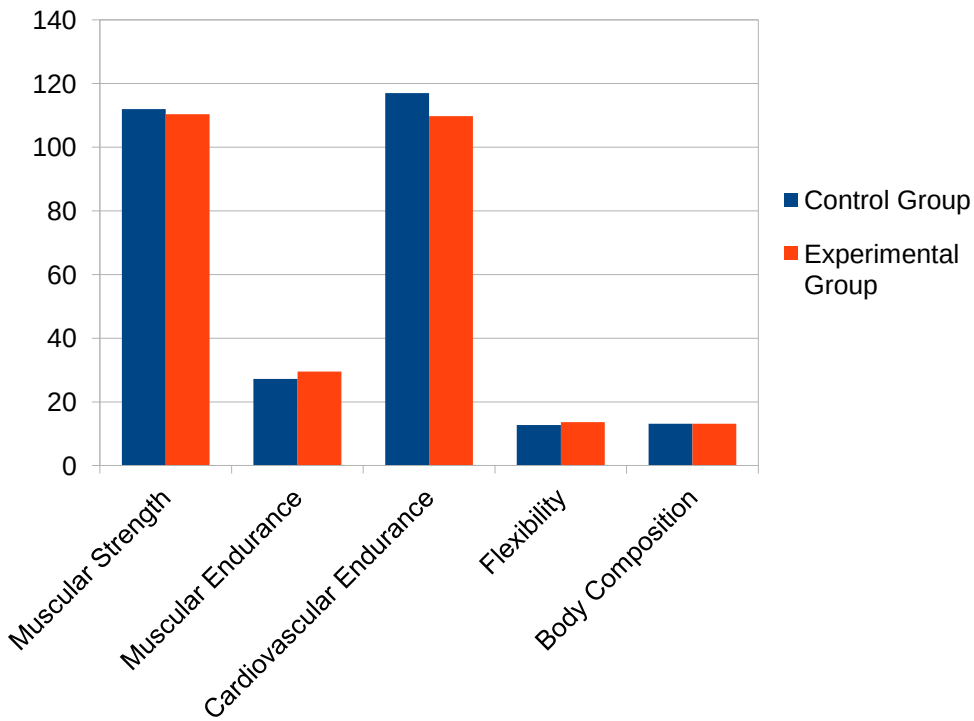

Figure 2. Comparison of Means of Post Test of Control and Experimental Groups for the Data on Muscular Strength, Muscular Endurance, Cardiovascular Endurance, Flexibility and Body Composition of College Girls

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A Comparative Study of Body Composition of NCC cadets, Sports Players and Yoga Practitioners

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Abstract:

Body Composition is an important dimension of physical fitness and health. If is essential to develop proper body composition in the youth. There are several activities through which this can be done in a formal manner. Prominent among these activities are NCC, Yoga and Sports Thus the present paper focuses on comparing Body Composition of NCC cadets, yoga practitioners and sports person. The study adopted the descriptive method of the causal comparative type and included 1200 students in the age group of 17-21 years. It was found that the mean Body composition of NCC Cadets is having higher Body composition in compare to Intercollegiate sports players. In case of Intercollegiate sports players and yoga practitioner group there is no significance difference in Body composition level, intercollegiate sports player and yoga practitioner group is having same level of Body composition. The Body composition of yoga practitioner is low level due to practice of yogic exercises and sports players is also having low level of Body composition compare to NCC cadets due to their physical training and activities. On the other hand NCC is more about drills and March. Hence Body composition is the lowest for yoga practitioners and high for NCC cadets.

Keywords: Body Composition, NCC, Yoga, Sports.

Introduction:

Physical fitness and health of young students is of paramount importance not only for the individual students but also for the progress and prosperity of the entire country. There are several indicators or dimensions of physical fitness and health and one such indicator is Body composition. Body composition is the percentage of body weight that is fat compared to other body tissue, such as bone and muscle. People who have a high percentage of fat are more likely to be ill and have a higher death rate than lean people. Exercise and eating the right foods in the proper amounts can improve body composition. Physical activities and training undertaken by NCC cadets, yoga practitioners and sports persons are expected to reduce body fat. Hence the present paper focuses on comparing body composition of NCC cadets, yoga practitioners and sports persons.

Objective of the Study:

To compare body composition of NCC cadets, yoga practitioners and sports person in the college going age group.

Definition of the Terms:

1. **Body Composition:** Body Composition is the percentage of body weight that is fat compared to other body tissue, such as bone and muscle.
2. **NCC Cadet:** It refers to the student who takes training in military subjects and discipline while in college.
3. **Yoga Practitioner:** He is a person who regularly performs yoga not only for health but also as sports.
4. **Sports Person:** It refers to the student who participates in intercollegiate sports while in college.

Hypothesis of the Study:
This is as follows:

Research Hypothesis: There will be a significant difference in the body composition of NCC cadets, yoga practitioners and sports persons in the college going age group.

Null Hypothesis: There is no significant difference in the body composition of NCC cadets, yoga practitioners and sports persons in the college going age group.

Methodology of the Study: The present study has adopted the descriptive method of the casual-comparative type in that it attempts to focus on existing students' body composition and hence is termed as descriptive research. Besides, it attempts to compare body composition of NCC cadets, yoga practitioners and sports persons and hence is termed as causal-comparative method.

Sampling Techniques: The study used purposive sampling technique wherein colleges offering NCC, yoga and sports were included as sample.

Sample Size: The sample included 1200 students in the age group of 17 to 21 years with 400 students each from NCC, yoga and sports.

Tools of the Study: Body composition is measured by using an instrument called callipers, a specialized scale.

Scope and Delimitations: The study was delimited to male students age between 17 to 21 years who are regularly participating in National Cadet Corp programmes, intercollegiate sports and yoga practitioner students.

Significance of the Study: This study may help NCC cadets, sports persons and yoga practitioner students of Mumbai to understand and realise their body composition. This study may help to search for a better programme to achieve good body composition of students. This study may guide not only NCC students, sports participants and yoga practitioner students in University of Mumbai to attain best possible body composition.

Data Analysis and Results:

Data analysis is done by IBMM SPSS - 22 software. The Null hypothesis was tested using the technique of one-way classification of ANOVA as shown in the following table:

Table 1. ANOVA for Body Composition of NCC Cadets, Yoga Practitioners & Sports Persons

Sources of Variance	df	SS	MSS	F	LoS
Groups	2	146.022	73.011	21.215	P < 0.01
Error	1197	4119.469	3.441		
Total	1199	4265.491			

Interpretation: Table 1 reveals that the F-ratio is significant is P < 0.01. It implies that the null hypothesis is rejected and the research hypothesis is accepted. It may be concluded that body composition of NCC cadets, yoga practitioners & sports persons differs significantly. Further, a t-test was applied the findings of which are as shown in the following table.

Table 2. Comparisons of Body composition of NCC Cadets, Yoga Practitioners & Sports Persons

Schools	Mean	SE	Sports	Yoga
NCC	17.0857	.12547	P < 0.01	P < 0.01
Sports	16.4345	.06332	-	ns
Yoga	16.2810	.07784	-	-

Conclusion & Discussion:

From table 2 it may be concluded that the there is significance difference in Body Composition between National Cadet Crops and Intercollegiate Sports players at 0.01 level where National Cadet Corps is having higher Body Composition in compare to Intercollegiate sports player. In case of National cadet Corp and yoga practitioner groups there is significance difference in Body composition at 0.01 level where yoga practitioner group is having lower Body composition in compare to National Cadet Corp. In case of Intercollegiate sports player and yoga practitioner groups there is no significance difference in Body composition at 0.05 level, Intercollegiate Sports player and yoga practitioner groups is having same level of Body composition. It may therefore said that the National Cadet Corp found to be significantly high level of Body composition in compare to Intercollegiate sports players and yoga practitioner Groups due to difference in physical training and activities of sports persons and yoga practitioner, on other hand NCC is more about drills and march and not eating the right food in the proper amount. Hence body composition is the lowest for yoga practitioners.

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Healthy Lifestyle Practices through Sudarshan Kriya Yoga (SKY) among Working Professionals

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Abstract:

Sudarshan Kriya Yoga (SKY) is a training intended to limit stress and anxiety in living. We led an examination among working professionals in a free-living populace in Pune, India, to assess the impact of 2 months of SKY practice on health and conduct of working professionals. The investigation included 37 obviously healthy grown-up volunteers who were allowed a 6-day course of preparing in cadenced breathing, contemplation, yogic stances, intelligent conversations for demeanor preparing, and adherence to a veggie lover diet, followed with 7 weeks of short, 30-minute day by day meetings of training of SKY and once-week after week 75-minute meetings of SKY. State and characteristic uneasiness scores and tolerance score were utilized as social result measures, along with evaluation of every day diet, micronutrient admissions, circulatory strain, anthropometric estimations, appraisal of bleakness, and estimation of blood levels of glucose, lipids, zinc, superoxide dismutase (SOD) as a pointer of cancer prevention agent limit, and lipid peroxidation. The scores and different measures were recorded toward the start and again toward the finish of the 2-month study period. Practice of SKY for a very long time was joined by a huge decrease in uneasiness score ($P = 0.039$) and stress score ($P = 0.017$), and by minor improvement in persistence score ($P = 0.134$). Albeit no critical changes in diet design were seen, a huge expansion in cancer prevention agent limit as SOD was seen after SKY practice ($P < 0.00001$), as was additionally a decrease in fatty oils ($P = 0.025$). A negligible decrease was seen in oxidative pressure as reflected by plasma malondialdehyde (MDA) ($P = 0.20$). A feeling of prosperity was accounted for by 67% of the subjects, further developed rest quality was accounted for by half, and 33% experienced expanded eagerness for taking care of their job. Normal act of SKY for 30 minutes out of each day across the 2-month study period diminished the nervousness score to a more prominent degree than did less-visit, once-week after week practice for 75 minutes. We infer that SKY is useful as a routine with which typical people can keep up with wellbeing.

Keywords: Sudarshan Kriya Yoga (SYK), Anxiety, Stress, Yoga.

Introduction:

Yoga, an old Indian science, has been drilled as a sound lifestyle. As of now, yoga has been embraced as a way to deal with wellbeing inside elective medication. A few yogic activities, for example, Shavasana, Kapal bhati, Hatha yoga, and contemplation have been assessed for their utility in lessening pressure and the hypertension that frequently goes with it[1,2]. Normal act of yoga for 3–4 months has shown helpful consequences for abstract prosperity [3]. despondency, and nervousness [4]. Sudarshan Kriya Yoga (SKY) is a particular yogic practice planned by Sri Ravi Shankar, author of the Art of Living Foundation, a charitable, volunteer-based association situated in Bangalore, India. SKY incorporates contemplation; the cadenced breathing activity called Sudarshan Kriya (SK), which is a Sanskrit expression signifying "appropriate vision, refined activity"; and pranayama, a term that signifies "controlling the breath" and includes calmly inhaling for a time of 4–10 seconds,

holding the breathed in breath for a further 4–10 seconds, breathing out over a time of 6–12 seconds, and pausing one's breathing in the breathed out state for a further time of a few seconds. In pranayama, the arms are raised over the head during inward breath and brought down during exhalation, and the method known as "ujjayi relaxing" is utilized, which includes encountering the cognizant vibe of the breath contacting the throat, and is planned to zero in consideration on the spinal string. Two further parts of SKY are accentuation on a simply veggie lover Sattvic diet and intuitive conversations for mentality preparing. The mix of these parts in SKY is novel, and has been accounted for to have an upper impact in melancholic patients and furthermore to diminish blood glucose levels in diabetic people [7]. Nonetheless, SKY can be similarly helpful for keeping up with the wellbeing of ordinary people. We depict here our discoveries in an examination done to assess the adequacy of 2 months of training of SKY in clearly solid people.

Method:

The examination included 40 male and female volunteers running in age from 20–55 years, who gave composed educated assent for their investment. Following their enlistment, they were given the Art of Living Foundation instructional class in SKY. At benchmark and again after the act of SKY for the 2-month study period, the 37 subjects' clinical, wholesome, and psychometric status were recorded, and comprise the information utilized in this report of our examination. Day by day diet was recorded by the subjects themselves through 24-hour review on 2 nonconsecutive days. The food sources were classified as Sattvic (unadulterated), Rajasic (overstimulating), and Tamasic (dull) [8].

Psychometric Assessment:

All subjects were assessed with Spielberger's State and Trait Anxiety Inventory (STAI) score, a stress scale, and a tolerance scale [10]. The 40-thing STAI, in view of a self-report poll, gives proportions of state nervousness, in light of the level of tension an individual is encountering out of the blue, and quality uneasiness, in light of a person's trademark level of tension. A higher score for either measure implies more prominent uneasiness. Both the state and characteristic uneasiness sizes of the STAI have been displayed to have high unwavering quality, with middle a coefficients of 0.92 and 0.90, individually. While the state nervousness scale exhibits inconstancy over the long haul, test–retest dependability for the quality bit of the scale goes from 0.73 to 0.86. Scores on the STAI are determined by and large by expansion of the state-and attribute scale results, and range from 40 to 160.

Patience Scale:

Subjects were additionally assessed on a persistence scale dependent on reactions to 15 inquiries identifying with various day by day circumstances and replied inside a 10-minute time span. The assessment characterizes persistence as serenity, poise, and readiness or capacity to endure deferral, and restlessness as time-direness and the failure to endure moderate individuals or cycles. Restless people will in general overcompensate to pressure.

Stress Scale:

The pressure scale is a self-report rating size of current stressors, with stress characterized as an irregularity between physical or psychologic request and the reaction capacity to such request under specific conditions. The scale contains 20 normally

experienced stressors (both eustress and misery things), and respondents are told to show which stressors they have encountered throughout the previous 2 months. The stressors include: (1) demise of a relative or companion; (2) work for over 8 hours per day; (3) absence of rest; (4) taking a little credit; (5) minor infringement of the law; and (6) exceptional individual accomplishments. The reaction to everything is allocated a score, and the scores for both state and quality nervousness are counted all in all to make a complete score, as noted prior.

Clinical and Laboratory Studies:

Each subject's blood pressure, morbidity during the month prior to study entry, current complaints, weight, height, and waist and hip circumference were recorded by a medical doctor. Fasting blood samples of 10 mL were taken and analyzed for glucose, lipids, zinc, superoxide dismutase (SOD), and malondialdehyde (MDA), as previously described [11].

Statistical Methods:

All statistical analyses were done with SPSS version 11.0 (SPSS, Inc., Chicago, Illinois). Differences between means were tested with Student's paired t-test. A Pearson's correlation coefficient was computed to quantify associations between two variables.

Table 1. Physical and Laboratory Characteristics of Study Subjects

Parameter	Men (n = 16)	Women (n = 21)
Age (years)	38.9 ± 3.3	39.3 ± 1.9
Weight (kg)	67.3 ± 2.8	60.5 ± 2.3
Height (cm)	167.4 ± 2.8	154.5 ± 1.8
BMI (kg/m^2)	23.9 ± 0.71	25.6 ± 0.93
Waist–hip ratio Systolic	0.93 ± 0.03	0.78 ± 0.02
blood pressure (Hg/mm)	126 ± 3	112 ± 3
Diastolic blood pressure (Hg/mm)	83 ± 2	78 ± 2
Hb (g/dL)	14.3 ± 0.5	11.1 ± 0.4
Glucose (mg/dL)	90 ± 3	81 ± 2
Total cholesterol (mg/dL)	151 ± 19	157 ± 11
Triglycerides (mg/dL)	114 ± 5	104 ± 8
SOD (U/mL cells)	0.97 ± 0.03	1.0 ± 0.04
Plasma zinc (mg/mL)	0.84 ± 0.02	0.85 ± 0.05
Plasma iron (mg/mL)	0.78 ± 0.02	0.61 ± 0.10
Plasma MDA (nmol/mL)	5.2 ± 0.4	5.9 ± 0.3

BMI = body–index; Hb, hemoglobin; SOD = superoxide dismutase; MDA = malondialdehyde.

Results:

The mean age of the subjects was 39.1 years (Table 1). All subjects had a weight list (BMI) inside the typical reach with the exception of 5 ladies whose BMIs went from 30 to 35 and 3 men whose BMIs were over 26. All subjects had typical fasting glucose, cholesterol, and plasma fatty oil levels, with hemoglobin and plasma zinc at the lower furthest reaches of

ordinary. Albeit the investigation subjects were encouraged to take part so, 30-minute meetings of SKY consistently, and in longer, when week after week meetings enduring 75 minutes every, it was seen toward the finish of the 2-month study period that 25% of the ladies and 73% of the men occupied with both the more extended, once-week by week meetings of SKY joined by something like one more limited, 30-minute meeting each week, however that 75% of the ladies and 27% of the men in the examination were utilizing just the more drawn out, once-week after week meeting.

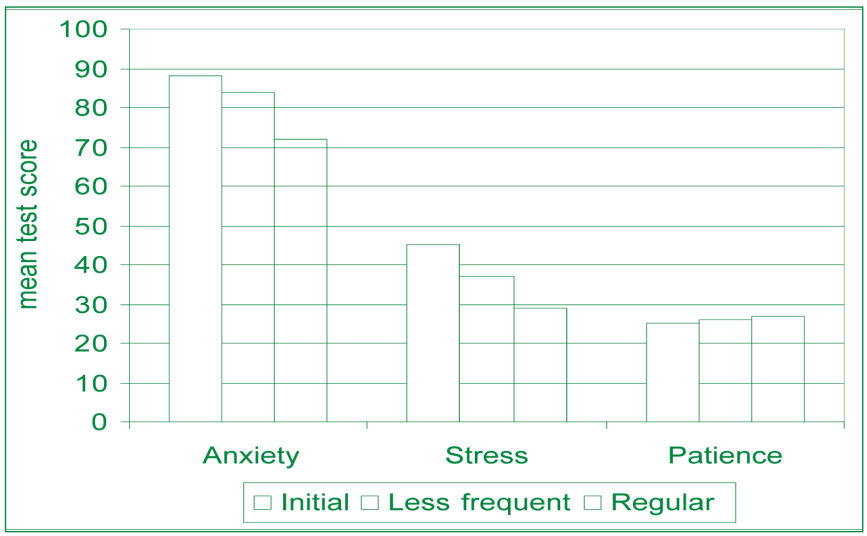

Figure 1. Effect of SKY on Anxiety, Patience, and Stress Scores

Table 2. Mean Daily Nutrient Intake of Study Subjects

Nutrient	Men	Women
Energy (kcal)	1750±191	1268±65
Protein (g) Fat	41.5 ±4.5	32.6 ±4.2
(g)	53.8 ±5.6	42.2 ±6.6
Carotene (mg)	1163±192	854±237
Vitamin C(mg)	34 ± 5	19 ± 3
Riboflavin (mg)	364±45	355±94
Thiamine (mg)	724±92	425±39
Folic acid (mg)	84 ± 8	54 ± 7
Niacin (mg) Zinc	12.5 ± 0.6	9.5±0.7
(mg) Copper	5.2±0.6	3.4±0.5
(mg)	2.4±0.3	2.3±0.7
Iron (mg)	9.1±1.0	5.8±0.5

Average Anxiety scores on the STAI toward the start of the investigation were 81.9 ± 4.3 for men and 91.2 ± 4.3 for ladies. A more noteworthy per-centage of ladies (31.2%) than of men (7.8%) had high tension scores. Following 2 months of SKY practice, the mean uneasiness score for the general investigation populace was altogether diminished, to 70.1 ±

2.1 (P = 0.049), similar to the tension score for ladies, for which the last mean was 84.1 ± 4.0 (P = 0.036). Tolerance scores at pattern were 27.5 ± 1.2 for men and 22.8 ± 1.2 for ladies, and expanded over the 2-month course of SKY practice by 9% for men and 4% for ladies. At gauge, the normal pressure score was 40.1 ± 4.6 for men and 51.1 ± 5.2 for ladies, and diminished throughout the examination by 10.2% for men and significantly, by 42.4%, for ladies. In general, practice of SKY for the 2-month study period fundamentally decreased both the tension score (P = 0.004) and stress score (P = 0.017), yet just possibly further developed the persistence score (P = 0.11). The progressions in these psychometric lists were related with the recurrence of SKY practice (Fig. 1).

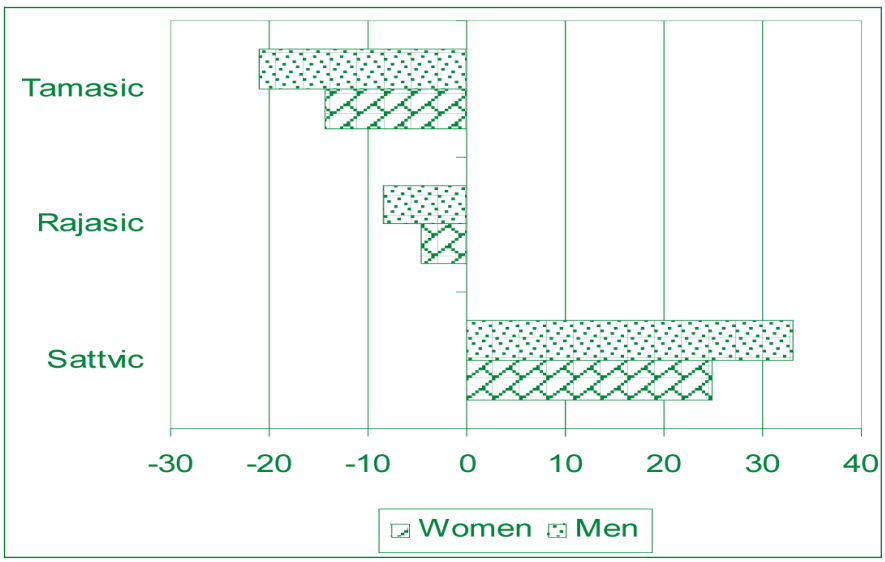

Figure 2. Change in Intake of Sattvic, Rajasic, and Tamasic Foods after 2 Months of SKY Practice in Men and Women

Figure 2 shows the change in subjects' dietary patterns following 2 months' practice of SKY. Consumption of Sattvic foods, such as cereals, fresh fruit, and vegetables, had increased by 25% in men, from 655 ± 42 g/day to 871 ± 39 g/day, and by 33% in women, from 594 ± 58 g/day to 743 ± 61 g/day, and averaged 871 g/day among men and 743 ± 61 g/day among women. Consumption of Rajasic foods, such as spices, sweets, and fried foods, averaged about 35 ± 9 g/day in women and 70.3 ± 13 g/day among men, and did not change significantly from the baseline to the end of the study. In- take of Tamasic foods, which included meat, fermented products, garlic, onions, and eggs, was 225 ± 27 g/day among men and 179 ± 20 g/day among women at the study baseline, and fell by 21% in men and by 14.3% among women across the 2-month study period of SKY practice ($p < 0.05$). Figure 3 shows a significant increase in antioxidant capacity measured as SOD ($P < 0.00001$) and a reduction in oxidative stress as plasma MDA (P = 0.005) after SKY practice. A marginal mean re- duction of 7% was observed in the subjects' plasma triglyceride levels (P = 0.15). Practice of SKY increased the sense of well being in 67% of the subjects, improved sleep quality in 50%, and in- creased enthusiasm for work in 33%.

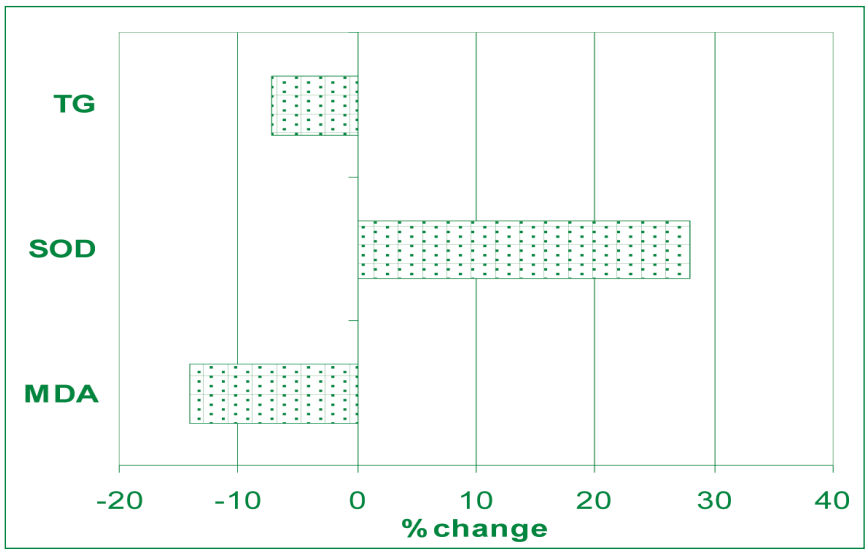

Figure 3. Change in Oxidative Stress (Malondialdehyde; MDA), Antioxidant Status (Superoxide Dismutase; SOD), and Triglycerides (TG) after 2 Months of SKY Practice

Conclusion:

As of now, anxiety, as reflected in the meanings of type A and type B characters, has been a focal point of clinical examination in coronary illness. Exploration has uncovered that people with undeniable degrees of aggression and anxiety (type B) in youthful adulthood are probably going to foster hypertension sometime down the road. Information in the current examination albeit gathered from solid people, showed a positive yet nonsignificant connection of stress scores with systolic and diastolic blood pressures ($r = 0.32$; $P > 0.1$). As indicated by yogic ideas of nourishment, food varieties are classified as Sattvic, or unadulterated; Rajasic, or overstimulating; and Tamasic, or dull concerning their impact on the body and brain. SKY is a comprehensive way to deal with wellbeing with an accentuation on breathing activities, contemplation, and adherence to a Sattvic diet, which includes the eating of new organic products, vegetables, and milk and the evasion of Tamasic food sources, for example, creature food sources, seared food sources, desserts, and flat food sources. The Sattvic diet underscored in SKY, potentially along with a diminished admission of Rajasic and Tamasic food varieties, may have decreased uneasiness scores and oxidative pressure in our examination populace. A few examinations contrasting yoga with antianxiety drug revealed more noteworthy enhancements with the previous than the last mentioned. An investigation of 24 ladies who distinguished themselves as having significant degrees of stress however who didn't have determinations of mental sickness announced advantages of twice-week by week hour and a half act of Iyengar yoga—an efficient technique for Hatha yoga that includes close focus on the developments in the different asanas or yogic stances for bringing the body into balance, and an internal pulling together of consideration for decreasing pressure, nervousness, and discouragement and further developing actual well-being.13 SKY has been accounted for to be viable for treating pressure and tension, yet in addition for post-awful pressure problem (PTSD), gloom, stress-related clinical disease, and substance misuse, and for recovery of criminal offenders.14 In the serious current world, where stress and uneasiness are important for regular daily existence, embracing a way of life dependent on yoga might work with a sound life. Reports of the utility of yoga for treating subclinical uneasiness and stress are meager, and more exploration is required in these areas.15 Our

information show helpful impacts of 2 months of SKY practice on subclinical nervousness in evidently sound, free-living grown-ups. In our examination, SKY practice likewise essentially expanded blood levels of SOD as a marker of cancer prevention agent status, looking like a prior observation,16 and decreased plasma MDA, another such pointer. SKY includes a cyclic breathing interaction wherein long breaths are trailed by medium and short breaths. In SKY, the breath, which is by definition fundamentally a current occasion, is conceptualized as a "rope that ties the meandering brain," which in any case regularly sways broadly among varying considerations and between the past and what's to come. In our examination, SKY altogether diminished nervousness scores, showing adjustment of mental movement. It likewise further developed cell reinforcement status. Further investigation of an enormous number of people is important to affirm these outcomes. Nonetheless, we accept that SKY can assume an imperative correlative and elective part in advancing a solid way of life.

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Impact of Nadishodhana Pranayama on Selected Physical Variables of College Men Cricket Players

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Abstract:

The study was designed to investigate the Impact of Nadisodhana Pranayama on selected physical variables of college men cricket players. To achieve these purpose Thirty cricket players were selected as subjects randomly from the affiliated colleges of Madurai kamaraj University madurai, Tamilnadu. Their aged from 18 to 25 years. They were divided into two equal groups (N=15) namely experimental group and control group. The experimental group undergoing pranayama training (Nadisodhana) and control group was not given any training over the period of six weeks. The following criterion variables were chosen namely speed and agility. The pre and post test mean of experimental group for speed was 6.96 and 6.78 obtained 't' ratio value t = 3.42 (2.09P < 0.05)found significant The pre and post test mean of control group 6.97 and 6.83 obtained 't' ratio value t = 1.256 (2.09P > 0.05) found in significant The pre and post test mean of experimental group for agility was 17.63 and 17.03 obtained 't' ratio value t = 3.24 (2.09P < 0.05) found significant The pre and post test mean of control group 17.42 and 17.58 obtained 't' ratio value t = 1.81 (2.09P > 0.05) found in significant test data was taken before the training and after the completion of six weeks immediately the post-test data was taken. The collected data were statistically analyzed by using depended' test to find out the significant at 0.05 level of confidence. This pranayama training programme shows that there was a significantly improvement on selected physical variables of college men cricket players.

Keywords: Yoga, Pranayama (Nadishodhana), Speed, Agility Cricket.

Introduction:

Yoga is a word from the ancient Sanskrit language that means Union, the attainment and merger of the individual human consciousness with the cosmic consciousness. The word Yoga is also used to describe the different Yogic Techniques employed the different disciplines that are used to facilitate the awareness and experience of Body, Mind and Spirit integration.

Breathing Techniques of Pranayama:

A repertoire of breathing exercises to revitalise the physiological components of respiration (breathing). Techniques to help balance the nervous system and provide the doorway to productive meditation.

Pranayama training means the rhythmical exercise which lungs motion. but nerve currents and mind regulate functions prana means vital force (or) cosmic energy, life (or) breath "control of the vital force by concentration and regulated breathing".

Basic Rules of Pranayama:

Before starting on Yoga pranayama there's an important principle you should respect. No matter which breathing exercise you follow the proportion of inhalation, exhalation and retention should be the same for all your exercises. In this case it has to be a ratio of 1-4-2 which means you should inhale for a second, hold your breath for four seconds and exhale everything within two seconds. Before taking any positions, try it out. This is the first step to taking control of your breathing and you'll see that it can be very challenging if you've never done that before.

Nadishodhana Pranayama:

This means "purification of subtle energy paths" in halation and exhalation are through alternate nostrils for successive respiratory cycle.

Methodology:

To achieve these purpose thirty cricket players were selected as subjects randomly from the affiliated colleges of Madurai kamaraj university Madurai, Tamilnadu. Their aged from 18 to 25 years. They were divided into two equal groups (N=15) namely experimental group and control group. The experimental group undergoing pranayama training (Nadishodhana) and control group was not given any training over the period of six weeks. The following criterion variables were chosen namely speed and agility. The subjects were tested on the selected physical variables speed and agility, speed measured in 50 mts dash, agility measured in shuttle run before and after the training period of six weeks. The collected data were statistically analyzed by using dependent' test to find out the significant improvement at 0.05 level of confidence.

Computation of 't'- Ratio for the Mean Difference of Pre and Post-Test Value of Experimental Group Speed

Experimental Group	Mean	Standard Deviation	Standard Error of Mean	't' ratio
Pre-test	6.96	.41	.091	3.42*
Post-test	6.78	.40	.090	

*significant at 0.05 level, df (1, 19) = 2.09

Experimental group speed was 6.96 and 6.78 respectively. The obtained 't' ratio value was 2.09 which was greater than the table value of 3.42 of significant at 0.05 level of confidence. Since the obtained 't' ratio value was greater than the table 't' value it shows that there was a significant difference that exists between pretest and posttest on speed. The pretest and posttest mean values of speed for experimental group were graphically represented

Computation of 't'- Ratio for the Mean Difference on Pre and Post-Test Value of Control Group on Speed

Control Group	Mean	Standard Deviation	Standard Error of Mean	't' ratio
Pre-test	6.97	.408	.091	1.256
Post-test	6.83	.410	.095	

*significant at 0.05 level, df (1, 19) = 2.09

Control group speed was 6.97 and 6.83 respectively. The obtained' ratio value was 2.09 which was less than the table value of 1.256 of insignificant at 0.05 level of confidence. Since the obtained' ratio value was less than the table 't' value it shows that there was a insignificant difference that exists between pretest and posttest on speed. The pretest and posttest mean values of speed for control group were graphically represented.

Computation of 't'- Ratio for the Mean Difference on Pre and Post-Test Value of Experimental Group on Agility

Control Group	Mean	Standard Deviation	Standard Error of Mean	't' ratio
Pre-test	17.63	.92	.20	3.24*
Post-test	17.03	.62	.14	

*significant at 0.05 level, df (1, 19) = 2.09

Experimental group agility was 17.63 and 17.03 respectively. The obtained 't' ratio value was 2.09 which was greater than the table value of 3.24 of significant at 0.05 level of confidence. Since the obtained' ratio value was greater than the table 't' value it shows that there was a significant difference that exists between pretest and posttest on agility. The pretest and posttest mean values of agility for experimental group were graphically represented.

Computation of 't'- Ratio for the Mean Difference on Pre and Post-Test Value of Control Group on Agility

Control Group	Mean	Standard Deviation	Standard Error of Mean	't' ratio
Pre-test	17.42	.609	.136	1.18
Post-test	17.58	.630	.140	

*significant at 0.05 level, df (1, 19) = 2.09

Table IV shows that mean value of experimental group agility was 17.42 and 17.58 respectively. The obtained' ratio value was 2.09 which was less than the table value of 1.81 of insignificant at 0.05 level of confidence. Since the obtained' ratio value was less than the table 't' value it shows that there was a insignificant difference that exists between pretest and posttest on agility. The pre test and post test mean values of agility for control group were graphically represented.

Discussion on Findings:

During the training period the experimental group underwent the pranayama training for six weeks of period in addition to their daily routine activities as per the curriculum.

Experimental group underwent training program on all days per week except Saturday and Sunday for six week of period.

The maximum duration of training session in all the days lasted 30 minutes approximately. All the subjects involved in this study were carefully monitored throughout training program. In the control group there in no significant different because they were not given any treatment other their daily activity. The subjects chosen for the experimental group was not given any special physical exercise or any other conditional training than treatment factors. Thus, it was concluded that any improvement in their performance was on account of the treatment given. In the speed of experimental group obtained' ratio value was greater than the table 't' value it shows that there was a significant difference that exists between pretest and posttest on speed In the agility of experimental obtained 't' ratio value was greater than the table 't' value it shows that there was a significant difference that exists between pretest and post test on agility. Hence it is concluded that the training programmer employed in carrying our study can be used interchangeably to those sports and games were reaction time is an important factor.

The Hypothesis of this study stated that there may be significant improvement in speed and agility of cricket players in college level due to influence of pranayama training. The result of this study shows that there is significant improvement in speed and agility of football players hence the investigator's hypothesis was accepted.

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Analytical Study on the CI Impact on Motor Ability Obtaining, Maintenance, and Move in Sport Rifle Shooting

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Abstract:

Purpose. Motor learning is the reaction to another experience or practice of an ability that outcomes in the creation of another engine expertise. the contextual interference (cI) impact is a learning impact which depicts the advantages of obstruction during training as further developed ability maintenance and expertise move. however, it is a set up wonder, the adequacy of cI has not yet been demonstrated in complex engine errands. consequently, the motivation behind this investigation was to break down the cI impact on motor ability obtaining, maintenance, and move in sport rifle shooting.

Methods. 32 subjects were similarly partitioned into two practice gatherings: high contextual interference (HcI) and low contextual interference (LcI). Four blocks of thirty shots were performed 10 meters from the objective. three positions (standing, sitting, and resting) were utilized to control the cI impact. the HcI bunch changed situations before each shot, while the LcI bunch shot multiple times similarly situated prior to changing to the following one. All conditions were randomized among gatherings and subjects. Multi week after the 120 securing shots, maintenance and move (15 and 25 meters from the objective) tests were completed.

Results. Precision between bunches during the securing stage, maintenance test results, and move test results were comparable between gatherings. in this manner, the cI impact was not seen in any of the periods of motor learning in sport rifle shooting.

Conclusion. It is conceivable these outcomes are related with the measure of training, level of cI utilized, and complex attribute of the undertaking.

Keywords: Random practice, Blocked practice, Motor learning, Motor skills.

Introduction:

Motor learning field examines assess techniques and methodology that work with and upgrade the expertise procurement measure. the contextual interference (cI) impact is an intriguing apparatus for this reason. As per Shea and Morgan [1], practice with higher cI, or in- wrinkled inconstancy, permits better learning and transfer contrasted than training and lower cI. this fluctuation is identified with training association which can be manipu-lated to diminish the consistency of the components engaged with effectively executing the original engine expertise. Many examinations have been directed to distinguish the ideal degree of contextual interference that best guides ability securing. Wu and associates [2] found great execution and learning with higher cI practice in a research facility task which required just elbow joint movement. Likewise, both Meira, Fairbrother and Perez [3] and Paulwels, Swinnen and Beets [4] revealed better maintenance levels of an engine ability when practice differed more notwithstanding less fortunate beginning execution during the procurement phase. On the other hand, carter and Grahn [5] didn't notice more noteworthy results with fluctuated practice while examining the cI impact on figuring out how to play a melodic show with a clarinet. Neville and Trempe's [6] research showed that arbitrary practice thwarts new

motor ability solidification, guaranteeing that high changeability between undertakings meddles in learning. Moreover, a deliberate survey about motor learning of careful and clinical related errands [7] uncovered no critical distinction in results among higher and lower cI practice association groups. Brady [8], in a writing audit of the relevant impedance impact on sport ability, brings up the diminished impact of cI control on non laboratory engine assignments. In his paper, Brady raised proof that the cI impact, as proposed at first by Shea and Morgan [1], is more grounded when testing straightforward abilities with less commonsense and applied qualities. accordingly, a particular measure of cI might be proper for learning each engine expertise. Dissecting distinctive expertise classes, then, at that point, is vital to all the more likely comprehend and apply the cI marvel. Little consideration has been given to investigating precision- based undertakings, for example, the rifle fired. regardless of its Olympic status and fame as a relaxation action in certain societies, little examination has tended to appreciation of the engine mastering cycles of this ability. Rifle firing can be viewed as a mind boggling engine ability because of the test it presents to engine control. As proposed by tuller, turvey and Fitch [9], when attempting to point a weapon the subject's body isn't totally still. hence, the point of the firearm influences around the objective continually. In case there is an objective 10 meters away, for instance, and 30-degrees is the ideal outright point of the shoulder joint to shoot, a 31-degree shot would prompt a 23cm projectile removal. the intricacy of this undertaking, then, at that point, spins generally around con- savaging numerous levels of opportunity of the arm portion, albeit other body parts are additionally engaged with a way that a negligible difference in position in any joint point ought to be adjusted by a compensatory development of another joint(s) to accomplish a fruitful shot. As such, a shooter should compel his muscles and joints to act as a solitary coordinative construction [9]. The CI impact on engine learning in sport rifle shooting has not been recorded in the writing. Consequently, the point of this examination is to investigate the cI impact on engine expertise obtaining, maintenance, and move in sport rifle firing. We theorized that the lower cI gathering (LcI) would exhibit better introductory execution, while the higher cI gathering (HcI) would show better maintenance and move levels. The discoveries in this investigation might add to comprehension the appropriate cI measurements to apply to don rifle firing motor ability obtaining and improve our insight about the cI impact on a mind boggling motor task.

Material and Methods:

Participants:

Thirty-two subjects (26 men, 6 ladies, age range 18 to 32 years of age) with no past experience in shooting elected to take an interest in this investigation. The subjects were isolated into two gatherings, one gathering with high cI during training and the other with low cI. the gatherings each contained 16 members and equivalent number of people. Members were permitted to utilize their favored hands, and every one of them self-declared right-hand inclination for this and oth-er manual errands.

Experimental Procedures:

Contextual interference was controlled by differing the shooting positions which were standing (St), sitting field target style (Ft), and lying down (Ld), as displayed in figure 1. In all conditions, members were not permitted to help the rifle on any spot or article aside from their own body. the procurement stage comprised of an aggregate of 120 shots, 10 meters from the

objective, obstructed in 4 arrangements of 30 shots each. Inside each square, members shot multiple times at a similar objective followed by a two-minute rest. the HcI bunch fluctuated the shooting position with each shot, while the LcI bunch shot multiple times prior to evolving positions. the position request was randomized between subjects of each gathering. Following seven days with no training, maintenance and move tests were performed. Preceding each test, three acquaintance shots were permitted in each position. the actual test comprised of thirty shots, ten in each position. two maintenance tests were performed during which the HcI bunch changed situations before each shot, while the LcI bunch shot multiple times similarly situated prior to changing to the following one. Position and test orders were likewise randomized between subjects. The exchange test was performed with various objective distances. ten shots were endeavored at 15 and 25 meters from the objective. Both exchange tests were acted in the St position. Figure 2 presents the investigation course of events.

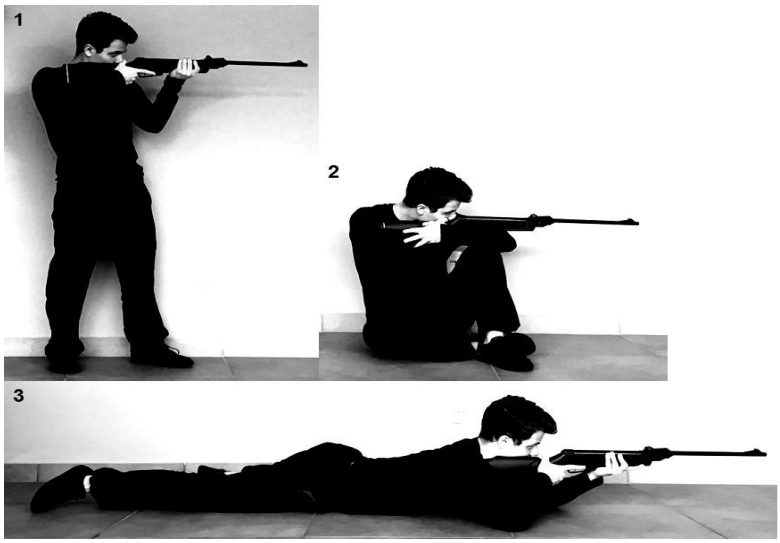


Figure 1. Shooting position representation: standing (1), sitting field target style (2), and lying down (3)

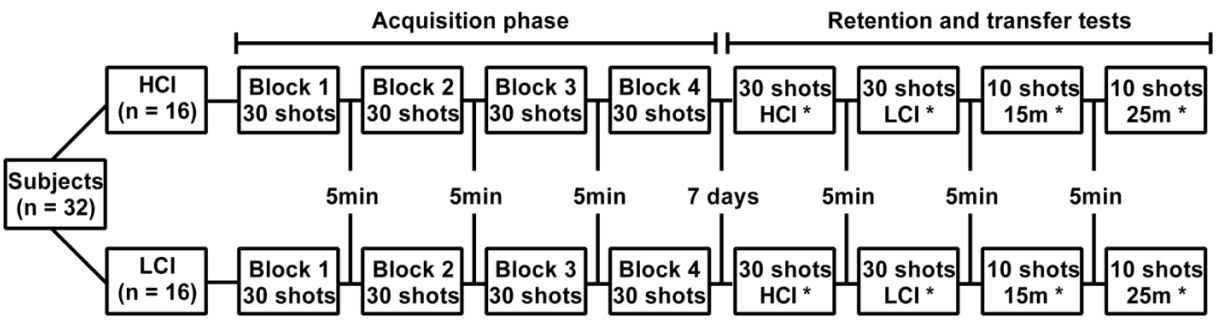


Figure 2. HCI – high contextual interference group, LCI – low contextual interference group; *test orders randomized between subjects

Rifle and Target:

The rifle utilized in this exploration was a Phanton 1000 (Crosman) with a length of 1.13m, a load of 2.25kg, a shot by shot reload framework, and 4.5mm pellets (Gamo Match,

.177 type). Another shooting spring (45kg Gr, FNA), assessed to give 400,000 shots without execution misfortune, was set in the rifle before the examination to ensure quality pointing and direct removal of the pellets all through the investigation convention. the rifle mean firing speed was 273m/s, estimated with a ballistic chronograph (Alpha chrony). The targets (figure 3) were imprinted on paper sheets, A4 size, containing score esteems going from 1 (external circle) to 10 (inward circle). Each point score was granted in view of the accompanying good ways from the focal point of the objective: 1 point – 14.5cm; 2 focuses – 13.0cm; 3 focuses 11.5cm; 4 focuses – 10cm; 5 focuses – 8.5cm; 6 focuses – 7.0cm; 7 focuses – 5.5cm; 8 focuses – 4.0cm; 9 focuses – 2.5cm; 10 focuses – 1 cm. the objective was supplanted after five shots, and the scores addressing the amount of each thirty shot square were figured for investigation. At the point when the pellet hit precisely the line between scores, the higher worth was thought of. A wooden board was utilized behind the objective to prevent pellets from bouncing back. the objective was situated 140cm from the beginning the St position, 70cm in the Ft position, and 30cm in the Ld position. The St position target tallness followed the Olympic and International Shooting Sport Federation standard.

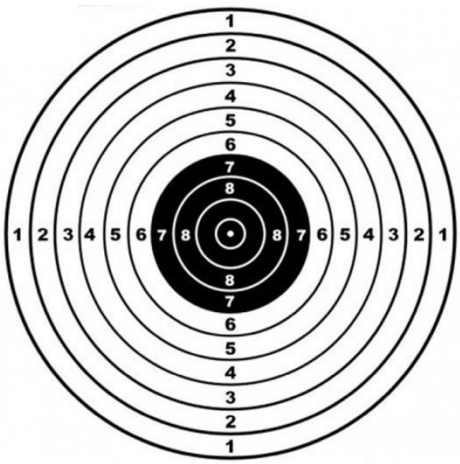


Figure 3. Target Representation

Shooting Procedures:

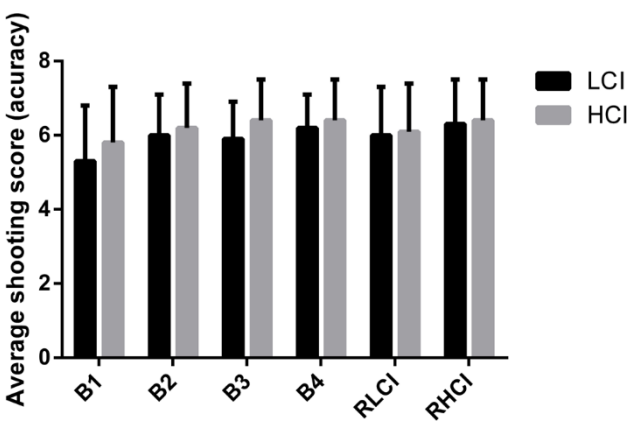
Before the procurement stage, members got verbal directions and a visual exhibition of the suitable strategy and stances. One acquaintance shot was permitted in each position. Members were told to focus on the objective and make the effort, not taking longer than seven seconds in the wake of getting the rifle in their grasp. An accomplished specialist reloaded the weapon and gave it back to the member after each shot. this reloading system required roughly 4–8 seconds, consequently the span between shots being around 11–15 seconds. A two-minute break was permitted after each 5 shots. Members rested for 5 minutes in the wake of finishing the thirty shot square. The shots were performed inside to control natural changes and give comparative conditions to each member. A conduit tape line was utilized to determine the objective distance in the various stages (10m in procurement and maintenance, 15m and 25m in move). there were no weapon sights to help shooting in any condition or a mount support.

Statistical Analysis:

Data, with normality verified by the Shapiro Wilktest, are described as means and standard deviations. comparisons between groups and phases were carried out by two way ANOVA, and the Tukey post hoc test was used when necessary. the Student'st test for unrelated measures was performed to compare groups in the transfer tests. All data were processed in SPSS (v. 20.0), and significance was set at 5%.

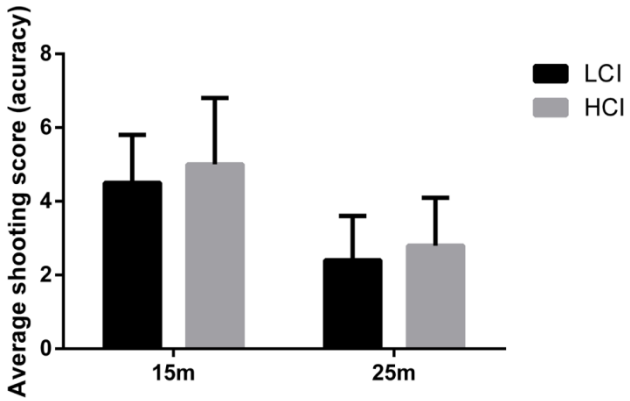
Results:

A phase effect was verified (F1, 5=3,22; p=0.009), showing performance enhancement after practice for both groups. Average mean scores for both groups in each block (B1, B2, B3, and B4) were M=5.53 (SD=0.28), M=6.08 (SD=0.22), M=6.14 (SD=0.20), and M=6.32 (SD=0.19), respectively. For the retention tests, the LcI score was M=6.08 (SD=0.25), and the HcI score was M=6.33 (SD=0.22). The groups did not differ from each other (F1, 5=0.733; p=0.40) since theaverage score for the LcI was M = 5.93 (SD = 0.26), while the HcI scored M=6.23 (SD=0.24). Interaction between groups and phases was also not verified (F1, 5=0.314; p=0.904). Figure 4 presents the average shooting scores in each block for the retention andtransfer tests in both groups. The unrelated measurest test presented equal performance between groups intransfer tests from both 15m (t=-0.910; gl=26; p=0.372) and 25m (t=-0.954; gl=26; p=0.349). The average shooting score so transfer tests for both groups are shown in figure 5.



LCI – low contextual interference group, HCI – high contextual interference group, B1 – shooting block 1, B2 – shooting block 2, B3 – shooting block 3, B4 – shooting block 4, RLCI – low contextual interference retention test, RHCI – high contextual interference retention test

Figure 4. Mean and standard deviation of shooting scores for both groups in standing position in all experimental phases



LCI – low contextual interference group, HCI – high contextual interference group, 15m – transfer test 15 meters from target, 25m – transfer test 25 meters from target

Figure 5. Mean and standard deviation of shooting scores for both groups in 15m and 25m transfer tests in standing position

Discussion:

The fundamental discoveries of this investigation were that training improved shooting precision albeit a logical obstruction impact was not set up dependent on our information. there was deficient proof to help our underlying speculations since precision was comparable between bunches during the obtaining stage, and the HcI bunch didn't present essentially better scores in maintenance or move tests. Since fostering the fundamental muscle-articular connections and ideal isometric control to make progress in a shooting task is a complex cycle, these outcomes ought to be seen in the light of engine learning writing with thought for engine control and neuroscience commitments in the subject. The help for training with more noteworthy cI as a guide to engine learning is initially founded on the differentiation that exists between the various developments performed during training. these progressions oblige members to continually intellectually remake an activity plan during the securing stages, consequently prompting better re-tention [1]. The arranging of an engine expertise advances untimely and broad actuation of the mind pre and advantageous engine region which favors better long- term memory stockpiling of that ability [10]. High contextual impedance, hence, appears to help in maintenance and development arranging since it gives more noteworthy improvement to these cycles during training, which conceivably reflects better execution and acquiring of the alluded ability.

Conclusions:

Both the low and high contextual interference groups demonstrated similar performance gains after practice, without variation between groups in the acquisition, retention, or transfer phases. therefore, the initial hypotheses that the blocked practice (LcI) would lead to better results in the acquisition phase, while varied practice (HcI) would enable greater retention and transfer, were not verified in this study.

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Impact of 8 Weeks of Yoga Practice on Flexibility and Endurance of College Students

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Abstract:

Yoga is an ancient Indian practice, which connects the body, breath, and mind. A growing number of research studies have shown that Hatha yoga can lead to improvements in flexibility and muscular endurance. To assess the impact of yoga on flexibility and endurance the researcher has used experimental method to compare the Physical Fitness between yogic students and non yogic students and implemented 8 weeks of yoga practice to experimental group which involves various Asanas and pranayamas and routine activities for controlled group. In each group 20 subjects have selected randomly who were aging from 18 to 25. To measure the flexibility - sit and reach test and endurance - 12 minute run and walk test have conducted among yogic students and non yogic students. To evaluate the impact of yoga practices pre test and post test have conducted to both the groups. The result reveals that there is a great impact of 8 weeks of yoga practice on flexibility and endurance. The present study is significant at 0.001 level ($t > p$) and study also reveals that there is a significant difference in flexibility and Endurance of yogic and non yogic students which is also significant at 0.001 level.

Keywords: Yoga, Asanas, Pranayamas, Flexibility, Endurance and Performance.

Introduction:

Yoga is an ancient Indian practice, first described in Vedic scriptures around 2500 B.C., which utilizes mental and physical exercises to attain samadhi, or the union of the individual self with the infinite. According to the first comprehensive textual description of yoga, the Yoga Sutras, written in the third century B.C., yoga is the cessation of thought waves in the mind. Hatha yoga, one of the many forms or paths of yoga, focuses on overall fitness through pranayamas (breath-control exercises), asanas (yoga postures), and meditation. Yoga is a practice that connects the body, breath, and mind. It uses physical postures, breathing exercises, and meditation to improve overall health. An analytical look at the goal of yoga shows that it is a holistic way of life leading to a state of complete physical, social, mental, and spiritual well-being and harmony with nature

In addition to the beneficial effects on flexibility, some yoga postures may achieve the recommended level of intensity for endurance fitness. A growing number of research studies have shown that Hatha yoga can lead to improvements in flexibility and muscular endurance.

A recent review provides preliminary evidence of improvements in flexibility, balance, aerobic fitness, and self-rated health after yoga practice.

Flexibility is the range of motion in a joint or group of joints or the ability to move joints effectively through a complete range of motion. According to the U.S. Surgeon General's report on physical activity and health, flexibility is defined as "a health-related component of physical fitness that relates to the range of motion available at a joint." Endurance refers to your body's physical capability to sustain an exercise for an extended period.

Statement of the Problem:

The present study mainly tends to analyze the effect of practicing of yogasanas and pranayamas on physical health components such as flexibility and endurance. Actually yoga has great impact on mental health as well as physical health. Many studies have find that practicing of yoga regularly improves immunity and fitness. So in present study attempt have made to analyze the "Impact of 8 weeks of yoga practice on flexibility and Endurance of college students"

Objectives of the Study:

1. To study the Impact of 8 weeks of yoga practice on flexibility of college students.
2. To study the Impact of 8 weeks of yoga practice on Endurance of college students.

Significance of the Study:

1. This study helps to coach and physical teachers to enhance fitness components such as flexibility and endurance through yoga.
2. It helps to study the influence of yoga on fitness
3. This study helps to compare the physical fitness - flexibility and endurance among yogic students and non yogic students.

Limitations:

1. This study owned be limited to comparing only physical fitness-flexibility and endurance among yogic students and non yogic students.
2. This study limited to 40 female subjects only.
3. This study limited to age group of 18 to 25 years.
4. The area is limited to Government First Grade College Manhalli of Bidar taluka of Karnataka state only.

Hypothesis:

1. There is no impact of yoga practices on Flexibility.
2. There is no impact of yoga practices on Endurance.
3. There is no significant difference between yogic and non yogic group in flexibility test.
4. There is no significant difference between yogic and non yogic group in endurance test.

Methodology:

The researcher has used experimental method to compare the Physical Fitness between yogic students and non yogic students. In the present study an attempt has been made to investigate the point whether there was any significant variation in the flexibility and endurance between yogic students and non yogic students. To identify the flexibility and endurance here 40 subjects of 18-25 age group have selected randomly from Government First Grade College Manhalli of Bidar taluka of karnataka state, in that 20 students of one group has kept for routine activities which is controlled group and 20 students of another group that is experimental group has administered by 8 weeks of yoga training for two hours daily. The yoga practices involved Asanas-Utkatasana, Parshvakonasana, Natarajasan, Tadasana, Vrkshasana, Trikonasana, Virabhadrasana, Hasta padasana, Navasana, Ardha Matsyendrasana, Rajakapotasana, Paschimottanasana, Ushtrasana, Halasana, Dhanurasana, Bhujangasan, Shalabhasana, Shavasana. Pranayamas-Ujjai Pranayamas, Anulom Vilom pranayama, Kapalbhati, Bhastrika pranayama. To measure the impact of yoga practices pre test and post test have conducted to both groups. The pre test of flexibility and endurance has conducted to both the groups without yoga training and data were collected. In the post test of flexibility & endurance, to measure the impact of yoga, 8 weeks yoga training has given to experimental group and data were collected from both the groups.

To measure the flexibility and endurance among yogic students and non yogic students the AAHPER motor components test have conducted.

The following fitness component tests have administered to measure the fitness of students.

Sl. No.	Fitness components	Tests	Units of measurement
1	Flexibility	Sit and reach test	Inches (+/-)
2	Endurance	12 minutes run and walk	Distance in meters

Note: In the flexibility test one who bends maximum inches is considered to be have higher ability. In the endurance test one who complete the prescribed time by covering the maximum distance is considered to be have higher ability.

Analysis & Interpretation of the Data:

The t-test was used to assess the impact of motivational techniques and to assess the significant difference between the motivational techniques.

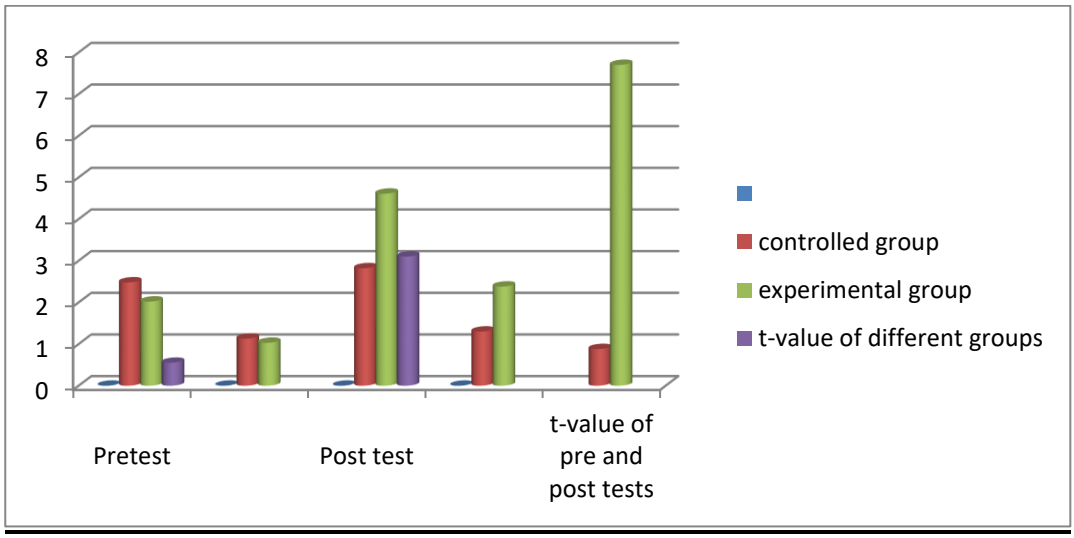
Table 1.

Table-1 shows mean, SD & t-value of flexibility test in two conditions pre test & post test of controlled group and experimental group.

Condition	Pretest		Post test		t-value of pre and post tests
	M	SD	M	SD	
controlled group	2.48	1.13	2.82	1.3	0.88
experimental group	2.02	1.03	4.61	2.38	7.70**
t-value of different groups	0.55		3.10*		

i) * Significant at 0.003 level. ii) ** Significant at 0.001 level.

Below graph shows Flexibility performance of controlled group and experimental group in two conditions of pre test & post test.



Results represents in the Table-1 in Flexibility test, the controlled group has scored mean of 2.48 and experimental group has scored mean of 2.02 in pre test and after indulging the experimental group into the 8 weeks of yoga practice and controlled group for daily routine activities post test has taken, in that controlled group has scored mean of 2.82 and t-value of controlled group is 0.88 which is less than table p value i.e. ($t < p$) so there is no significant difference in pre and post test of flexibility in controlled group where as experimental group has scored mean of 4.61 and t-value of experimental group is 7.70 which is greater than table p value i.e. ($t > p$). t-value is significant at 0.001 level, and there is significant difference in pre and post test of flexibility in experimental group. Therefore, yoga practice has an impact on Flexibility, here Null hypothesis is rejected and Alternative hypothesis is accepted ($H0 \neq H1$).

Even though in pre-tests of controlled group and experimental group t-value is 0.55 which is less than table p value i.e. ($t < p$), so there is no significant difference in pre-tests of controlled group and experimental group, but in post-tests of controlled group and experimental group t-value is 3.10 which is greater than table p value i.e. ($t > p$) t-value is significant at 0.003 level and there is significant difference in post-tests of flexibility in controlled group and experimental group. So here Null hypothesis is rejected and Alternative hypothesis is accepted ($H0 \neq H1$).

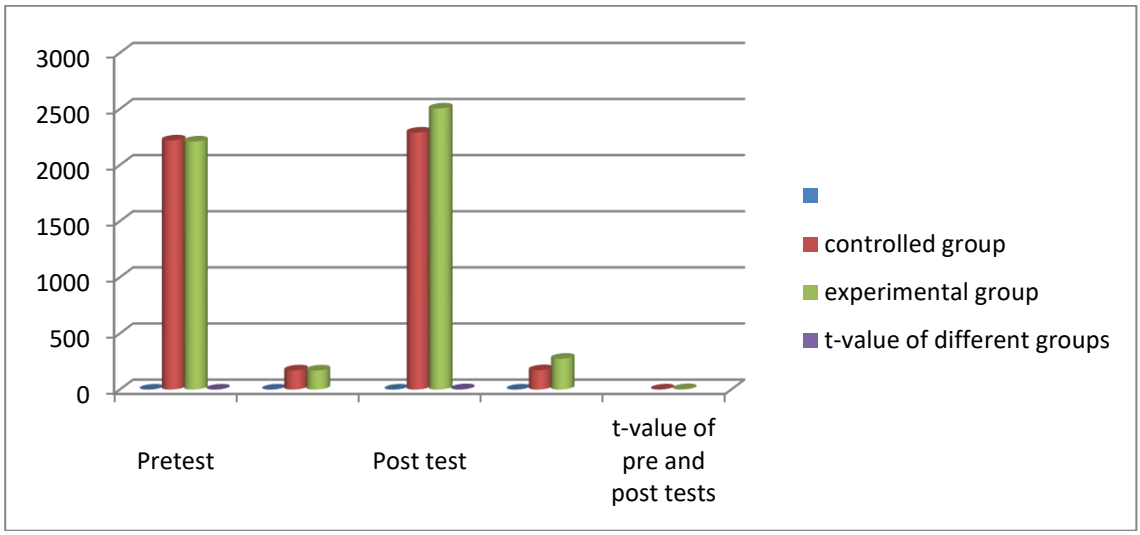
Table 2.

Table-2 shows mean, SD & t-value of Endurance test in two conditions pre test & post test of controlled group and experimental group.

Condition	Pretest		Post test		t-value of pre and post tests
	M	SD	M	SD	
controlled group	2219.2	170.5	2289.3	172.4	1.29
experimental group	2210.1	170.03	2503.96	274.55	3.60**
t-value of different groups	0.17		2.96**		

** Significant at 0.001 level.

Below graph shows Endurance performance of controlled group and experimental group in two conditions of pre test & post test.



Results represents in the Table-2 in Endurance test the controlled group has scored mean of 2219.20 and experimental group has scored mean of 2210.10 in pre test and after indulging the experimental group into the 8 weeks of yoga practice and controlled group for daily routine activities post test has taken, in that controlled group has scored mean of 2289.30 and t- value of controlled group is 1.29 which is less than table p value i.e. ($t < p$) so there is no significant difference in pre and post test of endurance in controlled group where as experimental group has scored mean of 2503.96 and t-value of experimental group is 3.60 which is greater than table p value i.e. ($t > p$), t-value is significant at 0.001 level, so there is significant difference in pre and post test of flexibility in experimental group. Therefore, yoga practice has an impact on Endurance. Here Null hypothesis is rejected and Alternative hypothesis is accepted ($H0 \neq H1$).

Even though in pre-tests of controlled group and experimental group t-value is 0.17 which is less than table p value i.e. ($t < p$), so there is no significant difference in pre-tests of controlled group and experimental group, but in post-tests of controlled group and experimental group t-value is 2.96 which is greater than table p value i.e. ($t > p$) t-value is significant at 0.001 level and there is significant difference in post-tests of Endurance in controlled group and experimental group. So here Null hypothesis is rejected and Alternative hypothesis is accepted ($H0 \neq H1$).

Conclusion:

On the basis of above analysis and interpretation of data the following conclusion can be drawn

- There is a great impact of 8 weeks of yoga practices on physical fitness.
- Yoga practice has great impact on flexibility and endurance.
- The result reveals that there is significant difference between yogic and non yogic group's flexibility and endurance. That is yogic group has more flexibility and more endurance comparing to non yogic group. Yoga improves the flexibility and endurance.

So this study has recommended to Physical Instructors and coaches that they can apply yoga training to enhance the participants physical fitness and sports performance.

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Survey Study on the Enhancement of Physical Fitness of Athletes through Participation in Virtual Run

Vishal Gupta
Prof. Vasanthi Kadhiravan

Abstract:

A virtual race is a race that can be run (or walked) from any location once choose. Athletes get to run their own race, at their own pace, and time it by self. Virtual Running works exactly the same as any other type of running but the difference is that the entire race can be run at any location, at any pace, inside on a treadmill or outside in another country. During this pandemic period to maintain the fitness level the athletes were participating in physical activities such as virtual run and hence, there was a need to conduct research to find out the fitness level of athletes. The main purpose of this research was to study the enhancement of physical fitness of athletes through participation in virtual run. So in this research 400 athletes were selected as samples for this study. 230 athletes were male and 170 female athletes. Considering the covid-19 pandemic the data was collected through survey method using self-made questions with the help of google form and other social media. Significance differences were determined through percentile method with the help of pie graph and tables. The result revealed that there was significant enhancement in the physical fitness level of athletes due to participation in virtual run during pandemic period. Hence, the study recommends the athletes to participate in the virtual run so as to enhance their physical fitness.

Keywords: Virtual run, Physical fitness component, Marathon runner during covid-19 pandemic.

Introduction:

Modern Education gives much more importance to Physical Education that leads to an all-round development as it emphasizes on physical fitness, motor fitness and most importantly psychological well-being. The Virtual Running race the participation it is difficult to distinguish physical fitness enhancement from one orally. Therefore, fitness aspect is important consideration for them. It is evident that today most sporting nation is very conscious of these facts and concentrates on the development of physical fitness components and related aspects. They concentrate on fitness factors which supposed to play a significant role in future performance of games such as flexibility, agility, reaction time, balance, strength, power etc, which are appropriate for specific age group.

A Virtual Race is a race you can run at any location, at your pace, outside or on a treadmill, alone or with a group of friends. A virtual race is a race that can be run (or walked) from any location you choose. You can run, jog, or walk on the road, on the trail, on the treadmill, at the gym, or on the track (or even at another race).

Physical Fitness:

Physical fitness is one's ability to execute daily activities with optimal performance, endurance, and strength with the management of disease, fatigue, and stress. Physical fitness components include: cardio-vascular endurance, muscular strength, muscular endurance, and

flexibility. During period of lockdown each and every athletes were helpless to continue their physical fitness routine but after the lockdown gets relief the athletes started doing virtual training and running to become physically fit and gain there fitness level again. So these where the main challenges were the athletes has to focus and come back with a good and positive mind during pandemic and virtual run had become a main reason from which many athletes had not only participated in virtual run but also participated in many competition of virtual marathon run.

Statement of the Problem:

Basically this study was on the enhancement of physical fitness and it would provide knowledge to the Athletes, under the heading of, "A survey study on the enhancement of physical fitness of Athletes by way of participation in Virtual Run".

Objectives of the Study:

The objectives formulated for the present study were as under-

- To study the status of Athletes physical fitness.
- To study the status of enhancement of Athletes muscular strength through Virtual Running.
- To study the status of enhancement of Athletes muscular endurance through Virtual Running.
- To study the status of enhancement of Athletes cardiovascular endurance through Virtual Running.
- To study the status of enhancement of Athletes flexibility through Virtual Running.
- To study the status participation of Athletes in Virtual Run race.
- To study the status of overall enhancement of Athletes by way of Virtual Running during covid-19 pandemic.

Hypotheses of the Study:

After analyzing the related review, it was hypothesized that-

H_1: Participation in Virtual Run will show a significant Enhancement in the muscular strength of Athletes.

H_2: Participation in Virtual Run will show a significant Enhancement in the muscular endurance of Athletes.

H_3: Participation in Virtual Run will show a significant Enhancement in the cardiovascular endurance of Athletes.

H_4: Participation in Virtual Run will show a significant Enhancement in the flexibility of Athletes.

H_5: Virtual Run will show a significant Enhancement in overall physical fitness of Athletes during covid-19 pandemic.

Methodology:

The researcher chosen male and female Athletes those are taking part in Virtual Run with the age of 20 to 60 years old from various districts of Mumbai pulled as a sample for this research study. Purposive sampling method was used for selection of the samples. Total 400 samples were chosen for this research study. Before the research study, the researcher ensured that the Athletes can be anyone related to the sports and game or weather the Athletes is still

participating or not. Enhancement of physical fitness of Athletes are main base of the study in which all the fitness components includes Variables like, muscular strength, muscular endurance, cardiovascular endurance and flexibility.

Keeping the prevailing situation of pandemic survey method was applied for this descriptive research where the researcher had collected the data virtually using google forms by online format to collect the data with the help of mailing and other social media etc. Specifically, answers obtained through the responses of athletes with multiple choice answer options are analyzed using quantitative methods presented with pie-charts, bar-charts and percentages.

Statistical Analysis:

The collected data were analyzed by using percentile method. The findings and interpretation of the data are presented below.

Results:

The analysis of the data collected by the researcher has been presented in this chapter by using percentile method and standard statistics of pie graph. The results of the same have been presented in the form of tables and graphs. Almost all the data which was collected are shown in table and after that the table is described in the graph with the help of pie graph method which will show the percentage level.

Table 1. Comparison of male and female athletes participated in virtual run

Gender	Raw number	Percentage
Male	230	57%
Female	170	43%
Total	400	100%

In case of table1: we can see that there are male and female gender which shows the raw number and percentage level of that particular gender. Total of 400 athletes are shown in which 230 athletes are male and 170 athletes are females. Figure 1 the percentage level of male and females athletes are presented graphically.

Figure 1: comparison of male and females athletes

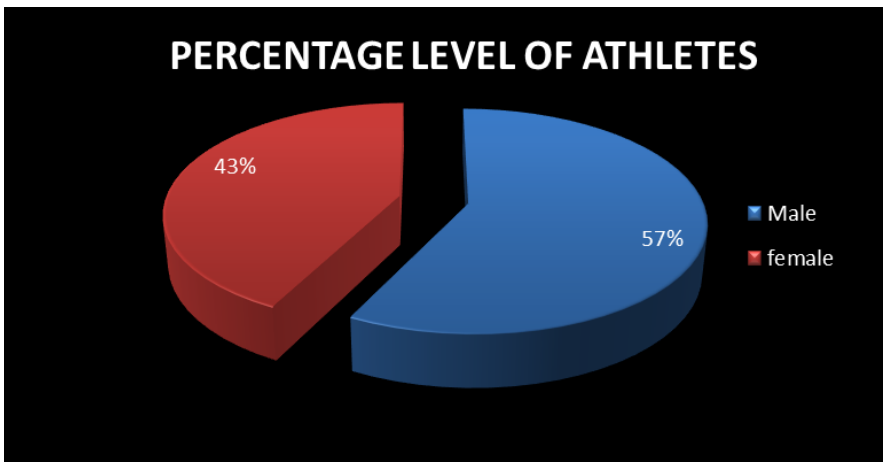


Table 2. Result of muscular strength of athletes through virtual run

Responses	Raw number	Percentage
Yes	207	52%
No	58	14%
May be	136	34%
Total	400	100%

In case of muscular strength enhancement, it was found that there is significant difference in the status of athletes by more than 52% who are agreed for enhancement and the other 14% of athletes are not agreed where as 34% of athletes are not sure about their enhancement of muscular strength by virtual run. Thus, the following hypothesis "H_1: Virtual Run will show a significant Enhancement in the muscular strength of Athletes" is accepted.

Figure 2. Percentage level of muscular strength of athletes through virtual run

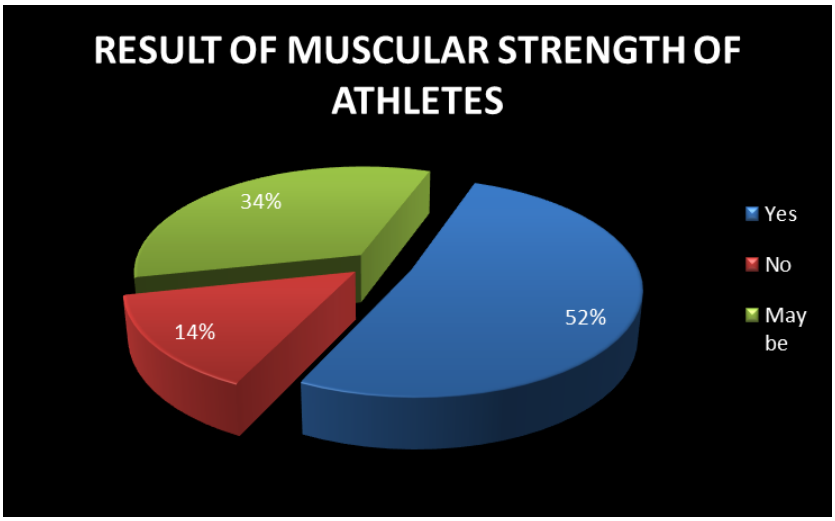


Table 3. Result of muscular endurance of athletes through virtual run

Responses	Raw number	Percentage
Yes	232	58%
No	46	11%
May be	122	31%
Total	400	100%

In case of muscular endurance enhancement, it was found that there is significant difference in the status of athletes by more than 58% who are agreed for their enhancement and the other 11% of athletes are not agree where as 31% of athletes are not sure about their muscular endurance enhancement by virtual run. Thus, the following hypothesis "H_2 Virtual Run will show a significant Enhancement in the muscular endurance of Athletes" is accepted.

Figure 3. Percentage level of muscular endurance of athletes through virtual run

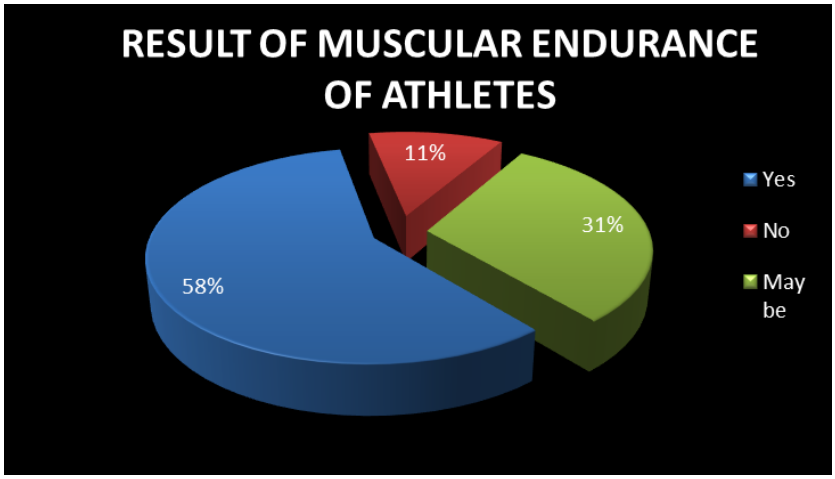


Table 4: Result of cardiovascular endurance of athletes through virtual run

Responses	Raw number	Percentage
Yes	227	57%
No	47	12%
May be	126	31%
Total	400	100%

In case of cardiovascular endurance enhancement, it is found that there is significant difference in the status of athletes by more than 57% who are agreed for enhancement and the other 12% of athletes are not agree where as 31% of athletes are not sure about their cardiovascular endurance enhancement by virtual run. Thus, the following hypothesis "H_3 Virtual Run will show a significant Enhancement in cardiovascular endurance of Athletes" is accepted.

Figure 4. Percentage level of cardiovascular endurance of athletes through virtual run

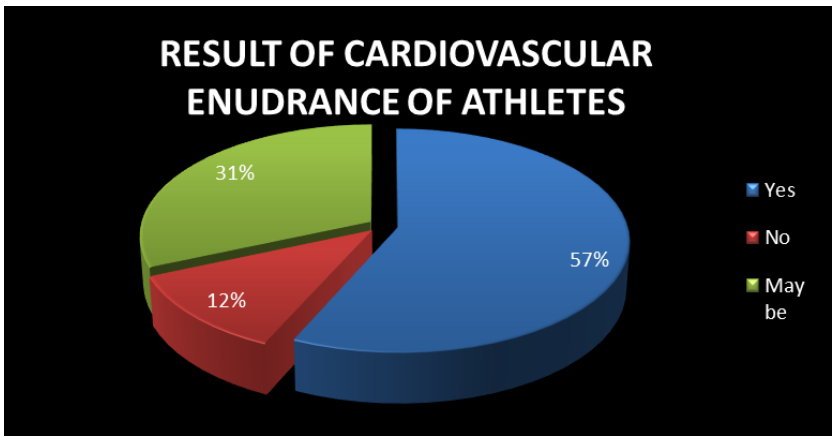


Table 5. Result of athletes flexibility through virtual run

Responses	Raw number	Percentage
Yes	204	51%
No	66	16%
May be	130	33%
Total	400	100%

In case of flexibility enhancement, it was found that there is significant difference in the status of athletes by more than 51% who are agreed for enhancement and the other 16% of athletes are not agree where as 33% of athletes are not sure about their flexibility enhancement by virtual run. Thus, the following hypothesis "H_4 Virtual Run will show a significant Enhancement in the flexibility of Athletes" is accepted.

Figure 5. Percentage level of athletes flexibility through virtual run

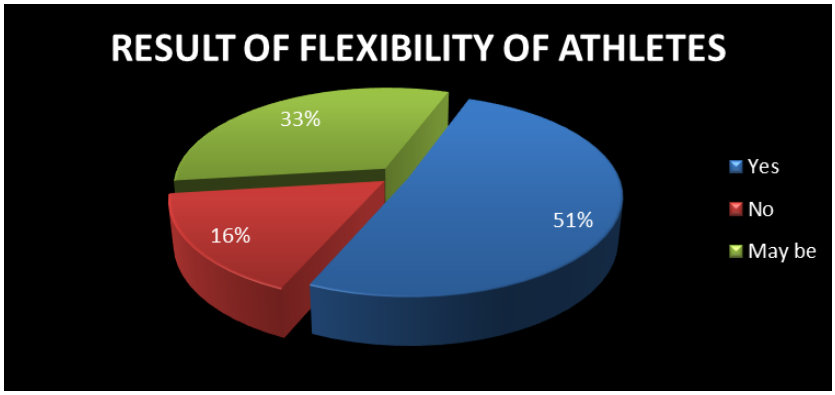
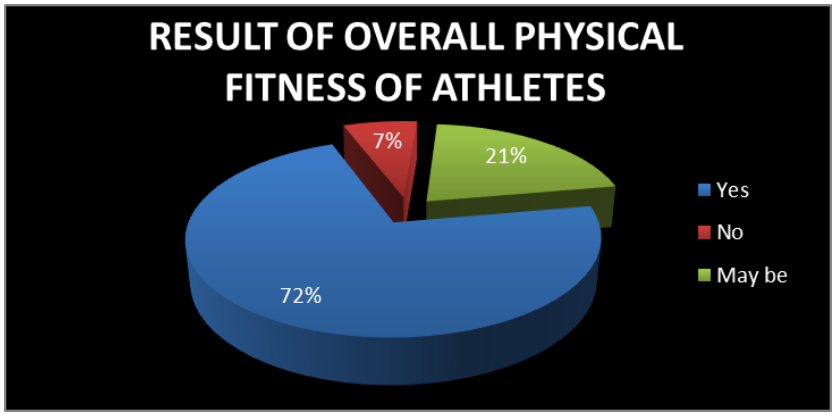


Table 6. Result of overall physical fitness of athletes through virtual run during covid-19 pandemic

Responses	Raw number	Percentage
Yes	288	72%
No	28	7%
May be	84	21%
Total	400	100%

In case of overall physical fitness enhancement during covid-19 pandemic, it was found that there is significant difference in the status of athletes by more than 72% who are agreed for enhancement and the other 7% of athletes are not agree where as 21% of athletes are not sure about their physical fitness enhancement. Thus, the following hypothesis "H_5 Virtual Run will show a significant Enhancement in overall physical fitness of Athletes during covid-19 pandemic" is accepted.

Figure 6. Percentage level of overall physical fitness of athletes through virtual run during covid-19 pandemic



Conclusions:

Virtual Run showed a significant enhancement in overall physical fitness in muscular strength, muscular endurance, cardiovascular endurance, flexibility of athletes during covid-19 pandemic.

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A Study of Personality of Inter Collegiate Kabaddi Players in Relation to Age, Gender and Area

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Abstract:

The present study has dealt with the status of personality, among the inter-collegiate Kabaddi players. Although standard procedure was followed to conduct this study, this chapter described the method of research, nature of the design, population and sample, tools used for research, apparatus or instruments employed, statistical tools and procedures, systematically.

Keywords: Personality, Inter Collegiate, Kabaddi, Players, Age, Gender, Area

Introduction:

The present study has dealt with the status of personality, among the inter-collegiate Kabaddi players. Although standard procedure was followed to conduct this study, this chapter described the method of research, nature of the design, population and sample, tools used for research, apparatus or instruments employed, statistical tools and procedures, systematically.

Objectives of the Study:

To assess the personality of the selected inter-collegiate Kabbadi players.

To compare the personality characteristics of the inter-collegiate Kabbadi players according to their age (19 to 22 years), gender (male & female) and area of living (rural & urban).

Research Design:

This piece of research study goes through a method of survey research that involved systematic compilation, explanation, analysis, and reporting of relevant facts concerning a population of inter-collegiate Kabaddi players belonging to a specialized area. The basic rationale is to select the research design to establish present practices, conditions or the effectiveness of the inter-collegiate players in order to provide scientific guidance to development of the present status of the selected players.

This research design helped to know "how to suggest changes in training or alterations in strategic planning for coaching or improvement in the existing sports training exclusively for Kabaddi players. This research design aims to describe the status of the phenomenon at a particular point of time especially for inter-collegiate Kabaddi players. This technique, in fact, has been adopted in this study.

Population:

The entire group, from which the sample is drawn, is known as population. In this investigation, the population is the entire inter-collegiate Kabaddi players from 131 colleges

(government and private) located in rural and urban areas of the Nanded district and affiliated to SRTM University, Nanded (Maharashtra). The approximate population of inter-collegiate Kabaddi players in the Nanded district may be one thousand five hundred seventy two (N=1572)

The Sample:

As it was not possible to cover the whole population, the investigator had to collect data on a representative sample from the population. Considering the factors (size of the sample, sampling error, expenses for data collection) and feasibility, the present researcher had conveniently selected 20% of the population i.e., 360 inter-collegiate Kabaddi players, age ranges from 19 to 22 years, residing in urban areas (n1=180 from urban area i.e., 90 male and 90 female) and rural areas (n2=180 from rural area i.e., 90 male and 90 female) respectively. Thus, total number of area-wise subjects was 360 (i.e., urban = 180 and rural = 180), and the same total number (n=360) was distributed equally gender-wise i.e., male = 180 and female = 180. The detail of the sample is presented in Table 1.

Table 1. Distribution of Subjects (age-wise, sex-wise and strata-wise)

Distribution of Data		No. of Subjects	Total Sample (n=360)
Age-wise (A)	19 to 20 years (A1)	120	360
	19 to 20 years (A2)	120	
	20 to 21 years (A3)	120	
Gender-wise (B)	Male (B1)	180	360
	Female (B2)	180	
Strata-wise (C)	Urban (C1)	180	360
	Rural (C2)	180	

Variable: 1) Personality,

Tools used and Criterion Measures:

The questionnaire method was used as a tool for survey. To assess Personality, a psychological scale as developed by Goldberg (1992) was administered.

Procedure:

For conducting survey on selected variables, all the 360 intercollegiate Kabaddi players were selected randomly from the different colleges situated in urban and rural areas, and affiliated to SRTM University, Nanded (Maharashtra). The subjects were then advised to take their time to fill up the questionnaire though there was no time limit set to respond to the questions. The data collected were scored, analyzed and interpreted as per the test-manual and finally, the data were interpreted as per the objective of this study.

Test Administration and Reliability of Data:

Prior to administration of the tests, the investigator clarified doubts - how to score the questions as included in the above mentioned psychological tests. He also explained the nature of questions available in the questionnaires with a view to the fact that it would not affect the validity and reliability of each component. The researcher personally administered

them in a favorable atmosphere with the consent of the subjects. Moreover, as the questionnaire as stated above was reliable, the data collected here seems to be reliable.

Statistical Analysis:

The descriptive data of this study were analyzed considering the following statistics:

- The data as obtained in terms of the responses from the questionnaires were analyzed the status of the selected variables. Further, descriptive statistics (mean, standard deviation etc.) were employed.
- Since there were multiple strata (age-wise, gender-wise, and living-place-wise) for analysis, the comparison of the subjects' strata-wise-status in accordance with the achievement scores in the psychological test (personality) was performed by employing a Mixed or Multiple analysis of variance (MANOVA) followed by Scheffe's post hoc test.
- The relationship of the strata-wise subjects' scores obtained in the psychological variables was established by using Pearson's Product Moment correlation method.

Major Findings:

1) Age-wise Personality Status

- No statistically significant change in extraversion was evident between the players of 19-20 yrs & 20-21 yrs age groups (CD=0.13, $p>0.05$). However, Significant difference was evident in extraversion among the players of 19-20 yrs & 21-22 yrs age groups (CD=0.32, $p<0.05$) and 20-21 yrs & 21-22 yrs age groups (CD=0.15, $p>0.05$). This infers that the status of extraversion improves with the increase in ages of the Kabaddi players.
- In case of age group 19-20 yrs & 20-21 yrs, no statistically significant no change in agreeableness was evident (CD=0.11, $p>0.05$), but statistically significant difference was evident in the same variable among the players of 19-20 yrs and 21-22 yrs age groups (CD=0.30, $p<0.05$) and 20-21 yrs and 21-22 yrs age groups (CD=0.12, $p>0.05$) respectively. Thus, the status of agreeableness improves with the increase in ages of the Kabaddi players.
- No statistically significant change in conscientiousness was evident between the players of 19-20 yrs & 20-21 yrs age groups (CD=0.14, $p>0.05$), whereas significant difference was evident in this variable among the players of 19-20 yrs & 21-22 yrs age groups (CD=0.35, $p<0.05$) and 20-21 yrs and 21-22 yrs age groups (CD=0.16, $p>0.05$). This infers that the level of conscientiousness improves with the increase in the ages of the Kabaddi players.
- No statistically significant change in neuroticism status was evident between the players of 19-20 yrs & 20-21 yrs age groups (CD=0.15, $p>0.05$), whereas significant difference was evident in neuroticism among the players of 19-20 yrs & 21-22 yrs age groups (CD=0.41, $p<0.01$) and 20-21 yrs and 21-22 yrs age groups (CD=0.27, $p>0.05$) respectively. This revealed that the level of neuroticism (a personality factor) increases with the increase in the ages of the Kabaddi players.
- Statistically significant difference in openness was evident between the players of 19-20 yrs & 20-21 yrs (CD=0.29, $p<0.05$), 19-20 yrs & 21-22 yrs (CD=0.35, $p<0.05$) and 20-21 yrs & 21-22 yrs age groups (CD=0.09, $p>0.05$) respectively. This infers that the level

of openness (a personality factor) decreases with the increase in the ages of the Kabaddi players.

- Although significant increase in overall personality was evident between the players of 19-20 yrs & 20-21 yrs (CD=0.24, $p<0.05$) and 19-20 yrs & 21-22 yrs age groups (CD=0.31, $p<0.05$), however, no significant difference was evident among the players of 20-21 yrs & 21-22 yrs age groups (CD=0.15, $p>0.05$). Thus, the level of overall personality improves with the increase in the ages of the Kabaddi players.

2) Gender-wise Personality Status:

- For 19-20 yrs age-group, the extraversion score of male players was significantly higher than the female Kabaddi players (CD=0.25, $p<0.05$). Similar result was evident for 20-21 yrs (CD=0.27, $p<0.05$) and 21-22 yrs age-groups (CD=0.32, $p<0.05$). Thus, overall extraversion score of male players was significantly higher than the female Kabaddi players (CD=0.30, $p<0.05$). This infers that the level of extraversion (a personality factor) of male Kabaddi players was higher than the female players.
- For 19-20 yrs age-group, the agreeableness score of female players was significantly higher than the male Kabaddi players (CD=0.27, $p<0.05$). Similar result was seen for 20-21 yrs (CD=0.29, $p<0.05$) and 21-22 yrs age-groups (CD=0.31, $p<0.05$). Thus, overall score of female players in this attribute was significantly higher than the male Kabaddi players (CD=0.28, $p<0.05$). This indicates that the level of agreeableness (a personality factor) of female players was higher than the male players.
- In case of conscientiousness, the female players of 19-20 yrs possess higher status than the male Kabaddi players (CD=0.35, $p<0.05$). Similar result was obtained for 20-21 yrs (CD=0.36, $p<0.05$) and 21-22 yrs age-group (CD=0.38, $p<0.05$) including overall conscientiousness level (CD=0.33, $p<0.05$). This infers that the level of conscientiousness (a personality factor) of female Kabaddi players was higher than the male players.
- For neuroticism, the females of 19-20 yrs age-group revealed significantly higher score than the male Kabaddi players (CD=0.23, $p<0.05$). Similar result was evident in case of 20-21 yrs (CD=0.25, $p<0.05$) and 21-22 yrs age-group (CD=0.29, $p<0.05$) respectively including overall score in neuroticism (CD=0.27, $p<0.05$). Thus, the level of neuroticism (a personality factor) of female Kabaddi players was higher as compared to the male players.
- In case of openness, the scores of female players of 19-20 yrs, 20-21 yrs and 21-22 yrs were found significantly similar to the male Kabaddi players (CD=0.08, $p>0.05$; CD=0.10, $p>0.05$ & CD=0.13, $p>0.05$) including their overall score (CD=0.11, $p>0.05$). Thus, the level of openness (a personality factor) of female Kabaddi players was similar to the male players. Thus, there is no significant difference in openness between male and female Kabaddi players.
- The result of overall personality revealed that the female players had higher score than the males of 19-20 yrs (CD=0.24, $p<0.05$), 20-21 yrs (CD=0.25, $p<0.05$) and 21-22 yrs age-group (CD=0.29, $p<0.05$). Overall result indicates that the personality score of female players was significantly higher than the male Kabaddi players (CD=0.26, $p<0.05$).

3) Living Area-wise Personality Status:

- The extraversion score of Urban players was significantly higher than the Rural Kabaddi players for 19-20 yrs (CD=0.23, $p<0.05$), 20-21 yrs (CD=0.26, $p<0.05$) and 21-22 yrs age-groups (CD=0.30, $p<0.05$) respectively including overall extraversion score (CD=0.28, $p<0.05$). This infers that the Urban Kabaddi players had higher level of extraversion than the Rural players.
- The agreeableness score of Rural players was significantly higher than the Urban Kabaddi players of 19-20 yrs (CD=0.29, $p<0.05$), 20-21 yrs (CD=0.31, $p<0.05$) and 21-22 yrs age-group (CD=0.31, $p<0.05$) including overall score of this attribute (CD=0.30, $p<0.05$). This in turn suggests that the level of agreeableness (a personality factor) of Rural Kabaddi players was higher as compared to the Urban players.
- The conscientiousness score of Rural players was significantly higher than the Urban Kabaddi players of 19-20 yrs (CD=0.24, $p<0.05$), 20-21 yrs (CD=0.26, $p<0.05$) and 21-22 yrs age-group (CD=0.28, $p<0.05$) respectively including overall conscientiousness score (CD=0.25, $p<0.05$). This infers that the level of conscientiousness (a personality factor) of Rural Kabaddi players was higher as compared to the Urban players.
- In case of neuroticism score, the Rural players was significantly higher than the Urban Kabaddi players for 19-20 yrs age-group (CD=0.23, $p<0.05$), 20-21 yrs (CD=0.25, $p<0.05$) and 21-22 yrs age-groups (CD=0.29, $p<0.05$) respectively including overall neuroticism score (CD=0.27, $p<0.05$). Thus, the level of neuroticism (a personality factor) of Rural Kabaddi players was higher as compared to the Urban players.
- The openness score of Rural players was significantly similar to the Urban Kabaddi players of all three age groups i.e., 19-20 yrs (CD=0.10, $p>0.05$), 20-21 yrs (CD=0.13, $p>0.05$) and 21-22 yrs (CD=0.14, $p>0.05$). Similar result was evident in case of overall result too (CD=0.12, $p>0.05$). Thus, there is no significant difference in openness between Urban and Rural Kabaddi players
- In case of 19-20 yrs age-group, the overall personality score of Rural players was similar to the Urban Kabaddi players (CD=0.15, $p>0.05$), whereas for 20-21 yrs (CD=0.24, $p<0.05$).and 21-22 yrs age-group (CD=0.27, $p<0.05$)., the overall personality score of Rural players was significantly higher than the Urban Kabaddi players. Overall result for all age groups indicates that the overall personality score of Rural players was significantly higher to the Urban Kabaddi players (CD=0.25, $p<0.05$). Thus, overall personality of Rural Kabaddi players was better than the Urban players.
- In case of personality disintegration, the players of 19-20 yrs was lower than 20-21 yrs age groups (CD=0.27, $p<0.05$). Similar trend was found in personality disintegration score among the players of 19-20 yrs & 21-22 yrs (CD=0.29, $p<0.05$). No statistically significant change was seen between the players of 20-21 yrs & 21-22 yrs age groups (CD=0.11, $p<0.05$). Thus, the level of personality integration increases with the increase in the ages of the Kabaddi players.
- Statistically significant decrease trend in lack of independence was evident between the players of 19-20 yrs & 20-21 yrs (CD=0.28, $p<0.05$) and 19-20 yrs and 21-22 yrs age groups (CD=0.31, $p<0.05$) respectively. However, no significant difference was evident in lack of independence among the players of 20-21 yrs and 21-22 yrs age groups (CD=0.10, $p>0.05$). Thus, trend of independency seems to be higher with the increase of ages among the players.

Conclusion:

- The level of personality of the Kabaddi players becomes higher if there is increase in their ages.
- Female players could possess better status of overall personality than the male players.
- The personality level of Rural Kabaddi players was found better than the Urban players. Strata-wise relationship with personality
- There was significant relationship of personality with the different age-groups (19 to 22 yrs) of the Kabaddi players. This suggests that age factor may play a role to differentiate the players' personality.
- There was significant relationship of personality with the different sex-groups (males and females). This suggests that sex factor may also play a role to differentiate personality.
- There was significant relationship of personality with the different areas of living (urban and rural). This suggests that the rural players may integrate their personality better than the **urban Kabaddi players.**

Recommendations:

This investigation, based on the findings and conclusion, recommends the followings:

- Since the status of personality, emotional maturity and anxiety of the Kabaddi players becomes higher if their age is increased, the implementation of personality development programme in early ages for the players is recommended.
- As the female players could possess better status of personality, than the male players, specific programme for personality development for male players is recommended.
- As the level of personality, trial Kabaddi players was found better, the specific personality development programme for the urban players is also recommended.

Contribution to the Knowledge:

The research revealed that status of personality of Kabaddi players differs according to age, sex and areas of living. Moreover, prediction of the players' personality is possible on the basis of the achievement scores. This investigation, thus, contributes to generate new data in this direction for enriching research literature exclusively for the Kabaddi players in Maharashtra.

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Covid-19 Pandemic and its Effect on Physical Education Trainee Teachers with Relation to their Academic Life, Financial Status & Social Life

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Abstract:

Covid-19 pandemic has been affected very badly educational system because of lockdown. Physical Education teacher trainees also suffered in this lockdown. The researcher tried to understand the effect of lockdown on their academic life, financial status and social life by filling up questionnaires from around 100 teacher trainees of B.P.Ed. and M.P.Ed. It is hypothesized that the covid 19 pandemics will affect negatively on Academic Life, Financial status & Social Life of Physical education trainee teachers. Data collected through the questionnaire by using survey method was analyzed using percentile method and presented with a graph of a pie chart.

Introduction:

The Covid-19 pandemic has made India even more effective than it has affected countries around the world. This has caused many problems in India. As it is a contagious disease, the Government of India and the State Government announced a lockdown on 22 March 2020 as a precaution against the spread of the disease. As a result, all educational institutions in India have been completely closed and are still closed. However, in 2021, the situation remains the same. Due to such a situation, many of the physical education trainee teachers are facing problems. So Covid-19 Pandemic seems to have a bad effect on their academic life, financial status & Social Life. To help the Physical Education Trainee Teachers understand and solve the problems that occur during covid-19 pandemic under the heading "covid-19 pandemic and its effect on physical education trainee teachers with relation to their academic life, financial status & social life".

Methodology:

The subjects for this study were selected through cluster sampling technique from the Physical Education College or institutions affiliated to the University of Mumbai, the researcher selected 100 Physical Education Trainee Teachers studying in the University of Mumbai Integrated Physical Education Study course. 25 subjects from each division or standard of (BPEd part1, part2 & MPEd part1, part2).

Data were collected by survey method in the descriptive method. To collect data from the survey method, the researcher created a teacher-made questionnaire related to the 3 variables like Academic life, Financial status, and Social life with the help of a research guide and filled it out by sending it to the teachers via email and social media.

Analysis of the Data:

The data collected through the questionnaire was analyzed using the percentile method and presented with a graph of a pie chart.

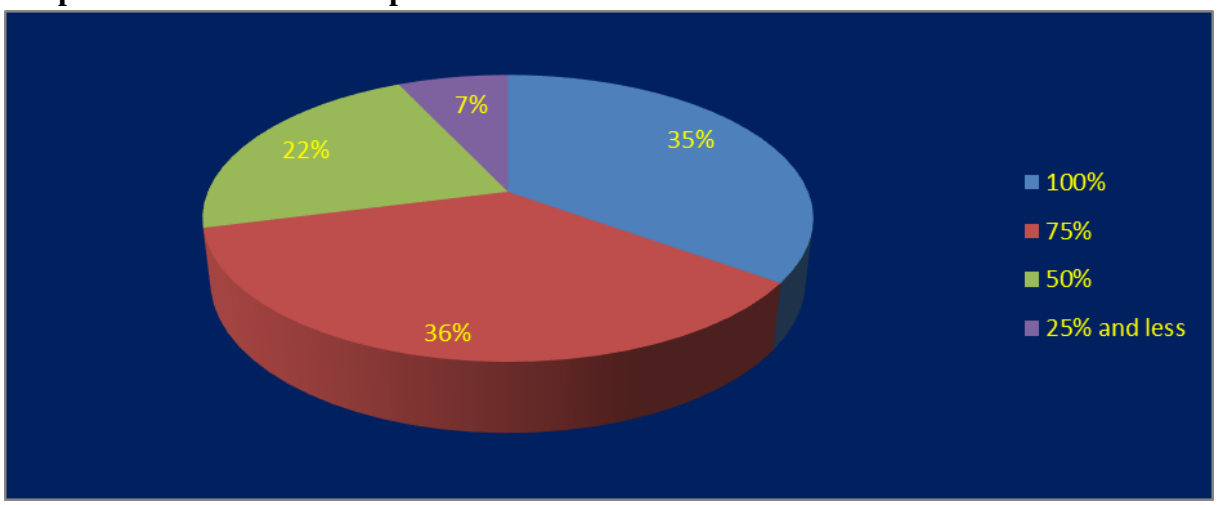
Academic Life:

Out of 100 subjects in all divisions, 35(35%) subjects responded 100%, 36(36%) subjects 75%, 22(22%) subjects 50% and 7(7%) subjects 25% or less than. Hence the following hypothesis sought by a researcher that it is hypothesized that the covid 19 pandemics will affect negatively on, the academic life of Physical education trainee teachers" is accepted.

Table 1. Academic Life Responses

Sr. No.	Responses %	Subjects (100)
1	100	35
2	75	36
3	50	22
4	25 and less	07
5	Total	100

Graph 1. Academic Life Response



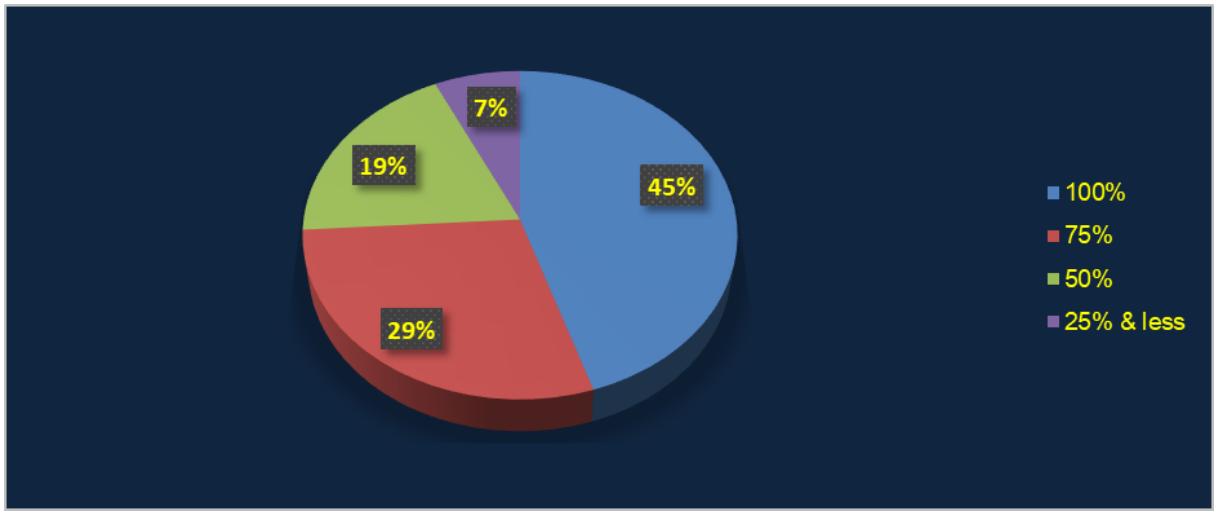
Financial Status:

Out of 100 subjects in all divisions, 45(45%) subjects responded 100%, 29(29%) subjects 75%, 19(19%) subjects 50% and 7(7%) subjects 25% or less than. Hence the following hypothesis sought by the researcher that it is hypothesized that the covid 19 pandemics will affect negatively on the financial status of Physical education trainee teachers" is accepted.

Table 2. Financial Status Responses

Sr. No.	Responses %	Subjects (100)
1	100	45
2	75	29
3	50	19
4	25 and less	07
5	Total	100

Graph 2. Financial Status Responses



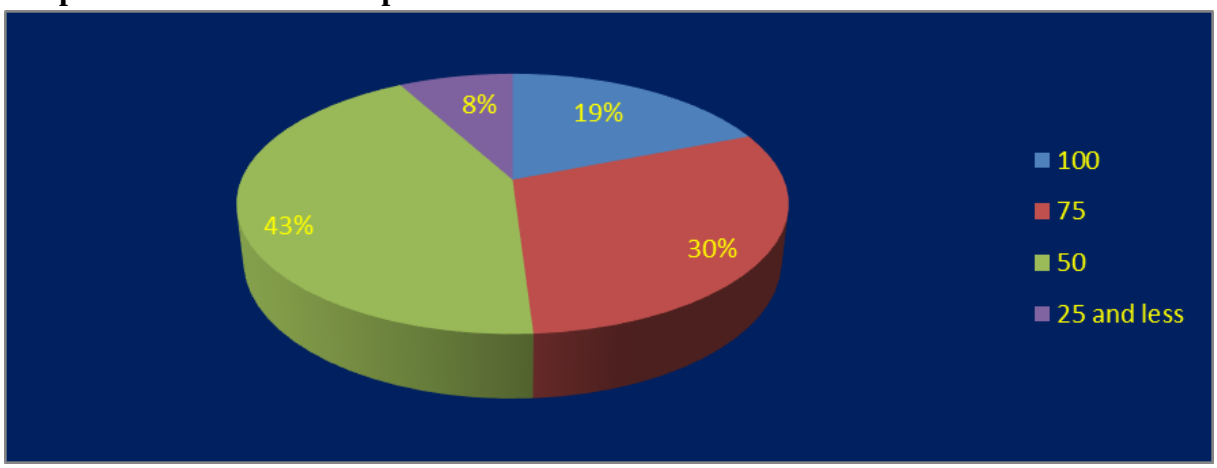
Social Life:

Out of 100 subjects in all divisions, 19(19%) subjects responded 100%, 30(30%) subjects 75%, 43(43%) subjects 50% and 8(8%) subjects 25% or less than. Hence the following hypothesis sought by researcher H5: It is hypothesized that the covid 19 pandemics will effect negatively on Social Life of Physical education trainee teachers" is accepted.

Table 3. Social Life Responses

Sr. No.	Responses %	Subjects (100)
1	100	19
2	75	30
3	50	43
4	25 and less	08
5	Total	100

Graph no 3: Social Life Responses



Conclusion:

Academic Life:

The effect of a covid-19 pandemic is 50% and above on a maximum number of Physical education trainee teachers. Offline lectures are completely closed. Initially, Physical education trainee teachers were having problems while attending online lectures but gradually they have accepted this situation.

Mobile is used as a medium to attend online lectures to more and more Physical education trainee teachers. A mobile network is being issued while attending online lectures. Students are not assessed through online exams, it was seen in maximum responses.

Financial Status:

Maximum Physical education trainee teachers have lost their jobs. Those who are employed are also being paid less than before. Salary is not being paid on time to those who are on employment. Most of the Physical education trainee teachers are employed in the private sector. So the Physical education trainee teachers have also reduced their own expenses. Thus covid-19 pandemic appears to have an effect on the financial status of Physical education trainee teachers.

Social Life:

Covid-19 pandemic seems to have had the same effect on the social life of physical education trainee teachers. Most of the trainee teachers do not seem to be celebrating their festivals with full enthusiasm like before. Some trainee teachers are keeping in touch with each other through the use of social media. Social media like WhatsApp, Facebook, Messenger, Telegram, etc. They seem to have spent most of their time with their families, some on social media, some on self-study, and some on their own entertainment.

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Implementing Yoga within the School Curriculum to Improve Social Emotional Learning and Stress Handling Capabilities of Students

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Abstract:

The motivation behind this paper is to survey and blend research confirm and propose a hypothetical model recommending that school-based yoga projects might be a viable method to advance social emotional learning (SEL) and positive student results as far as Concentrations. Memory is the psychological cycles of securing and holding data for later recovery and the psychological stores framework that empowers these cycles. Fixation implies completeness solidarity, harmony. It is the centering of consideration upon a specific article. The cycles of centralization of consideration and memory are the primary factor in learning. Studies have discovered that Yoga practices benefits the two ideas. The primary point of the current examination was to inspect the advantages of Yoga practices on school understudy's fixation and memory. The investigation was led one month before of school assessment. 200 school students (112 high stress students and 88 low stress students) were chosen based on scores got through pressure scale. Students were isolated into two gatherings Experimental gathering and control bunch. The two gatherings were given pre test to look at their grouping of consideration and memory. Yoga practices comprising of Pranayama, supplication and a worth direction developer were controlled on exploratory gatherings for about a month. The exploratory and control bunches were post-tried for their exhibition on convergence of consideration and memory. Results showed that exploratory gathering delivered and displayed higher convergence of consideration and memory. It has been recommended based on these perceptions that Yoga practices and activities ought to be a standard piece of the school educational program.

Keywords: Memory, Concentration, Attention & Examination Stress, Yoga.

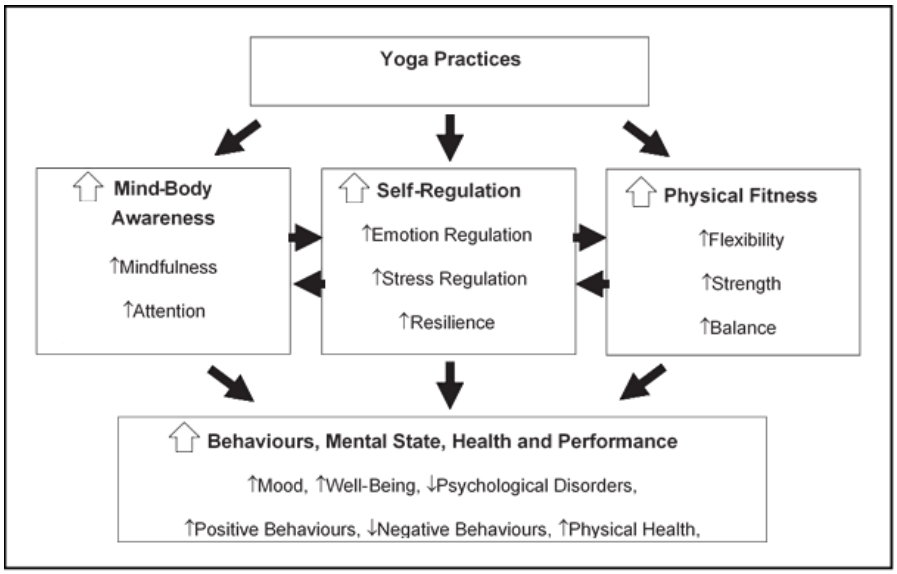
Introduction:

Children and teenagers living in the twenty-first century battle with various stressors, for example, relational struggles with family and friends just as strain to perform academically. A few examinations propose that these stressors can prompt temperament and other mental unsettling influences. For sure, research recommends that the aggregate predominance of mental issues by the age of 21 surpasses 80 percent with most of mental conditions having kid young adult onsets. These discoveries recommend that youngsters are needing strategies to work with the advancement of social-passionate capabilities, for example, stress the board and self-guideline. Yoga is an old Indian science and lifestyle that incorporates actual developments and stances as well as manages breathing and contemplation. Apparently following Yoga practice, the members were better ready to center their psychological assets, measure data rapidly, more precisely and furthermore learn, hold, and update snippets of data more effectively. The presence of Yoga in standard in Indian culture has developed significantly during recent years. Yoga is a psyche body practice that

joins actual stances, breathing activities, and thoughtful practices, determined to bind together the physical, mental, and enthusiastic selves. Examination has demonstrated that standard act of yoga helps in the improvement of the body, brain, and soul, prompting better and really satisfying life. Yoga emphatically affects psychological wellness and prosperity, consideration – fixation, memory and actual wellness. Yoga can expand understudy's capacity to think, center and further develop memory. Joining actual work in to day by day lives of understudies is vital for their wellbeing and well-being. One type of actual work entering schools is yoga. It expands scholarly execution and animates mind.

The motivation behind the current paper is to audit and integrate research proof proposing that school-based yoga projects might be a compelling method to advance social-enthusiastic learning (SEL) and check a significant number of the stressors looked by present day youth. Specifically, we propose a hypothetical model recommending that yoga rehearses upgrade mind-body mindfulness, self-guideline (for example stress and feeling guideline) and actual wellness (for example adaptability and strength), along these lines further developing practices, mental state, wellbeing and execution.

Figure 1. Hypothesized associations between yoga practice, self-regulation, mind-body awareness, physical fitness, performance, health, mental state and behaviors



The model outlined in Figure 1 suggests that yoga-based improvements in mind-body awareness, self-regulation and physical fitness have potential down stream effects on several positive student outcomes, including improved behaviours, mental state, health and performance.

Yoga and SEL: Definitions and Conceptualizations

Yoga is a comprehensive arrangement of brain body rehearses for mental and actual wellbeing that commonly fuses four essential segments: actual stances/activities to advance strength and adaptability, breathing activities to upgrade respiratory working, profound unwinding procedures to develop the capacity to truly and intellectually discharge pressure and stress and contemplation/care practices to upgrade mind-body mindfulness and further develop consideration and feeling guideline skills. Examination on the expected advantages of

yoga for grown-ups and youngsters has been filling as of late, with deliberate exploration audits proposing that it very well might be powerful at diminishing pressure and upgrading temperament and prosperity in grown-ups. Exercise and actual work has been related with positive changes in discernment and mental prosperity. A few examinations propose that there is positive connection between wellness level and centralization of consideration and memory among children. Researchers found that yoga practice affected grouping of consideration of youthful children. When an individual focuses his consideration for quite a while on specific item it is an interaction of convergence of consideration. Consideration can be considered as the psychological cycle of focusing exertion on an improvement or a psychological occasion. It is a restricted mental energy or asset that controls the psychological system. Memory is the psychological interaction of securing and holding data for later recovery and the psychological stockpiling framework that empowers these cycles. Asana, Pranayam and petition are probably the best posture to expand the memory and fixation power. It is the yoga practice in which we take full breath. Different exploration contemplates reasoned that yoga practices impacted focus decidedly and improved memory. The examination made by different investigates demonstrated that yoga practices further develops memory and consideration of younger students. Existing examination on the promising impacts of school-put together yoga intercessions with respect to understudy results brings up issues in regards to the potential systems hidden these impacts. All in all, why are school-based yoga programs useful and how are they comparable or unique in relation to existing SEL and contemplation programs. In light of exact proof recommending that yoga has gainful mental and physiological consequences for the cerebrum and body, we conjecture that yoga works with the advancement of three key skills: mind-body mindfulness, self-guideline and actual wellness which may, thusly, upgrade positive understudy results like enhancements in practices, mental state, wellbeing and performance. With this foundation, the target of this investigation was: To contemplate the impact of yoga practices on convergence of School students and to Study the impact of yoga practices on different parts of memory of School students.

Methods:

Subject: The study was carried out on 200 (100boys and 100girls with age ranging 14-15 years) school students whichwere randomly selected. Before random selecting, schools of CBSE were matched for infrastructure, student strength and human resources.

Measures: Bisht Battery of Stress Scale (BBSS). Only two sub scales, i.e. academic/ examination stress and achievement stress were selected. Stress was studied as an independent variable and used for the purpose of the classification i.e. High stress and low stress students. The aim was to examine whether stress and yoga have any interaction effect on memory and attention concentration.

Yoga Practice: Yoga practices were used as an intervention for experimental group for an hour daily in the morning for 4weeks.

Digit Symbol Test: This test was used to measure attention concentration in terms of the scores on speed and accuracy

PGI Memory Scale: The scale developed by Prasad and Wig was used in the present study. It contains 10 subtests, i.e remote memory, recent memory, mental balance, attention and concentration, delayed recall, immediate recall, verbal retention of similar and dissimilar pairs, visual retention and recognition.

Semi Structured Interview: This was designed with an intention to obtain qualitative information from yoga group (experimental group) about their sense of psychological well being.

Procedure:

The tools were administered to each subject of both groups individually in pre test and post test. They were tested when they were performing yoga exercises. The testing session was followed by a short interview where each subject was individually interviewed. The total time taken by the each subject in one session was about 45-50 minutes. A yoga exercises – Asanas, Pranayama, Prayer and value orientation program was arranged daily for an hour in the morning with the experimental group for 4weeks.To study the effect of yoga and stress on concentration and memory, 2 X 2 factorial design (ANOVA) was employed on the obtained score of concentration as well as memory.

Results:

Table 1. Mean and S.D. values of concentration of High and Low stress group

Stress Level	Groups				F-ratio
	Experimental		Controlled		
	Mean	S.D.	Mean	S.D.	
High	25.38	6.54	11.83	4.36	7.16**
Low	29.42	7.12	13.06	5.13	

** $p<0.01$

Table 1 reveals that F-ratio for the difference between means of high stress and low stress groups of concentration was found to be significant at the 0.01 level. This indicates that students of experimental group and control group differ on the score of concentration. The mean values were also different for both groups, meaning thereby that those students, who were exposed to yoga exercises exhibited better concentration than those who were not exposed to yoga exercises.

Table 2. Mean and S.D. values of memory in High and Low stress group with respect of Yoga exercise

Stress Level	Groups				F-ratio
	Experimental		Controlled		
	Mean	S.D.	Mean	S.D.	
High	39.39	4.58	24.37	5.81	8.34**
Low	42.55	5.14	26.05	6.12	

** $p< 0.01$

Table 2 shows that F-ratio for the difference between means of high and low stress groups on memory was found to be significant at the ($F=8.34$, $p<0.01$) which indicates that students of experimental group and control group differ on scores ofmemory, Experimental group showed higher mean than control group. It is inferred that the students who exercised Yoga exhibited better memory than those who were not given Yoga treatment.

Table 3. Mean values of outcome measures

Measures	Experimental Group	Control Group
Digit symbol	10.26	9.68
Remote memory	5.72	5.43
Recent memory	5.00	4.32
Mental balance	8.60	7.90
Attention concentration	9.89	8.23
Delayed recall	9.69	9.21
Immediate recall	10.23	9.15
Verbal recall (similar pair)	5.00	4.80
Verbal recall (dissimilar pair)	12.65	11.39
Visual retention	11.48	10.25
Recognition	9.35	8.48

Results presented in table 3 indicated that experimental group performed significantly better on the outcome measures than control group because of practicing Yoga.

Discussion:

It is apparent from the outcome that the understudies who were presented to yoga practices showed upgrades memory and further developed focus. The outcomes are in line with the prior discovering, which announced that yogic practice further develops memory and consideration centralization of younger students. The consequences of centralization of consideration were additionally steady with before explores. The discoveries of the current investigation likewise uncovered that memory and convergence of consideration don't vary essentially in two pressure conditions. One of the explanations of this outcome might be because of only one explicit part of pressure–that is assessment stress chose in this examination though in the majority of prior investigations stress was evaluated in entirety and furthermore some actual measures like, B.P., pulse, mind working was taken as markers. The current investigation was finished not long before the assessment in this time understudies has significant weight of their course readiness. This is a one significant explanation of various kinds of aftereffects of the current examination with the discoveries of past investigations. It could be closed from this pattern of discoveries of the investigation that because of activity of yoga memory and centralization of consideration improved and it diminished the anxiety of understudies in assessment time. Expanding proof backings, the view that yoga is a training which addresses various mental, enthusiastic, and actual aspects of the person. The activities down–direct pressure frameworks. These are accepted to work on the control of consideration and stress insight. The positive results in this investigation are for the most part predictable with those of the couple of recently distributed investigations of yoga in school setting.

Conclusion:

Schools assume a critical part in assisting kids with setting up solid way of life practices since the beginning. Hence, carrying out yoga in schools could have sweeping ramifications for school wellbeing as well as for society overall. Given that school participation is legitimately commanded, school-based yoga programs can possibly give an enormous scope intercession that advances SEL and positive understudy results. Examination recommends that giving yoga inside the school educational program might be a successful

method to assist understudies with creating self-guideline, mind-body mindfulness and actual wellness, which may, thusly, encourage extra SEL skills and positive understudy results like further developed practices, mental state, wellbeing and execution. Thusly, it is recommended that yoga exercise should turn into a normal component of the school educational program.

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Effect of Yoga Practice during Offseason Super Compensation of Elite Volleyball Players

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Abstract:

Super compensation is a phase that appears during off-season and. the appearance of higher percentage of this phase leads to decrease performance and skills. The players, therefore, because of such low in performance, face tremendous difficulties during next pre-season and competition season too. The present investigation, thus, could contribute a standard yoga training programme that helps to reduce the percentage of super compensation and thereby improve physical fitness and skills during off season. This investigation, therefore, adds a new knowledge to the global literature in sports about effectiveness of "newly developed yoga training" for minimizing the phase of super compensation that, in turn, maintains and/or enhances physical fitness and skills among elite/professional volleyball players.

Keywords: Volleyball, Yoga practice, Offseason, Super compensation, Elite volleyball players.

Introduction:

In sports science theory, supercompensation is the post training period during which the trained function/parameter has a higher performance capacity than it did prior to the training period. The top performance of volleyball players is influenced by many factors such as physical, physiological and psychological variables, technique, tactics, physique, body size, body composition, application of biomechanical principles etc. It has also been well established that coaches conduct special scientific training to the players considering the nature of periodization so that the player would acquire higher abilities to exhibit to performance in the competitions at the highest level in a specific sport (Slater et al., 2005). In fact, every phase (preparatory phase, competitive phase and transition phase) of scientific training is crucial for the players. Once the competitive season is over, players need physical and mental rest to get complete recovery in Off-season. However, the transitional phase (Off-season) of training seems to be also important too. In this phase, since there is no competition, the players take rest and that is detrimental for the continuation of their performance abilities throughout the year. In fact, players need to maintain physical fitness throughout the year to meet the competitive demands. Therefore, a player (including a volleyball player) needs to maintain physical fitness and skill level even during the Off-season of periodization and therefore special training is the need of day inclusively for the players of volleyball. Based on the review of literature it is evident that specially designed yoga training may contribute to compensate all the psychophysical ailments and imbalances in physical fitness and skills during the Off-season. Development and implementation of yoga training program for elite volleyball players seems to be logical especially during offseason of different cycles of sport training. It was, therefore, thought of developing and introducing a specialized yoga program during offseason exclusively for the elite volleyball players. With this view, the present form of research entitled, "Effect of yoga on offseason super compensation, of elite volleyball players" has been undertaken.

Objectives of the Study:

- To measure the Off-season status of super compensation, physical fitness and skills of elite volleyball players during micro cycle and macro cycle phase of periodization.
- To evaluate the efficacy of yoga training programme on super compensation of the volleyball players after completion of the micro cycle and macro cycle phase of periodization.

Hypothesis:

HO: The yoga training programme with micro and macro cycles may not show a significant reduction in super compensation level of elite volleyball players during off-season.

Delimitation of the Study:

- This study has been restricted to the school going male volleyball-players whose age ranged from 14-16 years.
- The present investigator has delimited to a major dependent variable viz., super compensation level, for the volleyball players.

Limitations of the Study:

Due to paucity of time and busy schedule of the school, the investigator has restricted the Yoga training session for one hour daily so that the daily routine of the school is not disturbed.

- Total duration of experiment for this study was limited to six weeks only.

Significance of the Study:

As stated above, this investigation has a social relevance. This study can also contribute to the society in the following ways:

- The study might bring an outstanding result showing improvement in the performance in volleyball, which is a challenging sport.
- Volleyball players at national and international level may be benefited through this study.

Methodology:

Sports coaches generally adapt two types of training viz., micro-cycle training (i.e., short duration) and macro-cycle training (i.e., long duration) considering coaching strategies. In this investigation, the researcher intended to evaluate the impact of these two types of training strategies on offseason super compensation of elite volleyball players. The study was conducted in micro cycle and macro cycle of offseason as follows:

1) Experiment on micro cycle (duration: 45 days), and
2) Experiment on macro cycle (duration: 90 days).

The methodology followed to conduct this scientific experiment has been presented in below.

Experimental Design in Off-season Phase on Micro Cycle (Experiment-1):

The Subjects and Sampling:

Thirty male elite volleyball players (n=30), aged 14 to 16 years, volunteered in this controlled experiment-1. The subjects, participating in micro cycle of volleyball training were randomly selected from local schools located in Nanded Dist., Maharashtra by employing

Fishers random table sampling technique. Making the use of the table random numbers, all the 30 subjects were divided randomly into two matched groups so that each group represent 15 players of volleyball.

Method of Experiment for Micro Cycle:

This experiment-1 was conducted during transitional phase (off-season) that lasts for 45 days of Micro cycle of training. The two groups – one experimental group (n1=15) and one control group (n2=15) participated in this experiment. This experiment considered three phases viz., pre-test, yoga training and post test.

Pre-Test:

The micro-cycle of experiment considered a major variables (viz., super compensation) that was assessed at the baseline (Pretest) for subjects of both the experimental and control groups.

Training Intervention:

A specialized yoga schedule for 45 days was developed exclusively for the volleyball players considering the nature of offseason activities. The experimental group participated in the conventional lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated in the newly developed yoga schedule for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 45 days of offseason except Sundays and holidays. The method of development of Yoga training have been presented later in this subjects.

The subjects of control group participated in a lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated, in some recreation activities for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 45 days of offseason except Sundays and holidays. It should be noted that the controlled group subjects were not allowed to participate in the yoga programme.

Post-Test:

After the off-season training for micro cycle period is over, both the groups (Exp. & Control) were post tested with the variables (super compensation) like pre-test. The schematic research design, in short, is presented in Table 1.

Table 1. Schematic representation of the design of Offseason Experiment-1 on Volleyball players (Micro cycle)

Off season experiment on Micro cycle		
Baseline test	**Training (Transitional / Offseason)**	**Post test**
For 1 Day	45 days	For 1 Day
Super compensation	**Exp. Gr.** (n1=15): Lead up practice of Volleyball skills + Yoga. **Cont. Gr.** (n2=15): Lead up practice of Volleyball skills + Recreation.	Super compensation

Experimental Design in Off-season Phase on Macro Cycle (Experiment-2):
The Subjects and Sampling:

Like previous experiment, thirty male elite volleyball players (n=30), aged 14 to 16 years, volunteered for this experiment-2. The subjects, participating in macro cycle of volleyball training were selected from local schools located in Nanded, Maharashtra by employing Fishers random table sampling technique. Making the use of the table random numbers, all the 30 subjects were divided randomly into two matched groups so that each group could represent 15 players of volleyball.

Method of Experiment-2 (Macro Cycle):

This experiment-2 was conducted separately on the separate subjects of volleyball of same age group chosen from same institution (Exp=15 & Control=15) during transitional phase (off-season) for 90 days of Macro cycle of training. In fact, both experiments (i.e., exp-1 and exp-2) started simultaneously. Thus, total duration of this experiment-2 was 90 days.

Pre-Test:

In this exp-2 (for macro cycle), the same variables (viz., super compensation) like exp-1, were assessed at the baseline (pretest) on all the subjects.

Training Intervention:

The same specialized Yoga Schedule Plus lead up activities, like exp-1, was also introduced for the experimental subjects of the exp-2 for a total of 90 days. Similarly, the subjects of the control group of exp-2 were also participated in the same lead up practice plus recreation (like exp-1,) for the same period of 90 days.

The subjects of the experimental group participated in the conventional lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated in the newly developed yoga schedule for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 90 days of offseason except Sundays and holidays. Whereas, the subjects of the control group participated in the said lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated in same recreation activities for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 90 days of offseason except Sundays and holidays. It should be noted that the controlled group did not participate in the yoga programme.

Post-Test:

After the off-season training for macro cycle for 90 days period is over, both the groups (Exp. & Control) were post tested with the variable (viz., super compensation) like pre-test.

The schematic research design of the experiment-2 on macro cycle, in short, is presented in Table 2.

Table 2. Schematic representation of the design of the Offseason Experiment-2 on Volleyball players (Macro cycle)

Off season experiment on Macro cycle		
Baseline testing	**Training (Transitional / Offseason)**	**Post test**
For 1 Day	90 days**	For 1 Day

Super compensation	**Exp. Gr.** (n1=15): Lead up practice of Volleyball skills + Yoga. **Cont. Gr.** (n2=15): Lead up practice of Volleyball skills + Recreation.	Super compensation
*** Although the duration of macro cycle training seems to be longer than a micro cycle; however, considering the recent trend of tough competition, the investigator intends to see if the short duration of transitional phase / offseason training phase in macro cycle especially with yoga training could be effective or not on the selected variable.*		

Inclusion and Exclusion Criteria:

- The subjects who agreed to sincerely attend the respective training programme were included in the study.
- The subjects, who had any health complications or disease as examined and ruled out by the medical doctor, were excluded prior to the study.

Dependent Variables and their Measurement:

Based on literature, following variables were selected for two experiments:

Sr. No.	Component	Test Name	Comments
SUPER COMPENSATION IN OFFSEASON			
1.	Super compensation state in periodization indicates a player's recovery	Needs graphical representation (%)	This is a state that appears during offseason of either micro or macro cycle of training / periodization. If the percentage of super-compensation is higher that slows down level of physical fitness and skills. Thus, less percentage of super compensation signifies a better state of physical fitness and skills.

Development of Yoga Intervention:

The researcher recorded the level of difficulty of performing each yoga posture by using a checklist and Yoga programme was finalized as follows:

A. **Sitting Asanas:** Vajrasana, Janu Shirasana, Ustrasana, Vakrasana, Mayurasana
B. **Supine Asanas:** Ardha Halasana, Halasana, Pavanmuktasana, Setu Bandhasana, Shavasana.
C. **Prone Asanas:** Bhujangasana, Dhanurasana, Makarasana
D. **Standing Asanas:** Ardhakati Chakrasana, Padahastasana, Trikonasana, Tadasana, Adhomukha Shwanasana.
E. **Breathing exercises:** Anulom-viloma, Bhastrika and Kapalbhati

Statistical Techniques:

The data was processed through descriptive statistics. Further, was analyzed through inferential statistics as follows:

- The percentage-wise data of super compensation phase during offseason was analyzed through descriptive statistics.
- The data analysis of each experiment was done separately considering inferential statistics.
- For analysis of data on super compensation level, Chi square test (X2 test) was employed.

Major Findings:

- The result of two phases of experiment revealed that micro-cycle of training programmes, during off-season, could prevent the increasing trends in percentage of super-compensation phase in off-season ($X^2 = 10.84$, $p<0.01$); whereas similar result was also evident in case of the impact of macro-cycle training on super-compensation ($X^2 = 10.06$, $p<0.01$).
- The result of the said two experiments revealed that both the micro-cycle and macro-cycle of yoga training during off-season could improve the components of among volleyball players.

Conclusion:

Implementation of Yoga training in both micro-cycle and macro-cycle can effectively control the trends of super-compensation during off-season among the volleyball players. However, the result of macro-cycle of training was more effective than the micro cycle to control the trends of super compensation.

Recommendation:

Yoga training can effectively be included in the training schedule of the elite volleyball players irrespective of micro and/or macro cycle phases especially during off-season.

- Super compensation is a phenomenon which is applicable in every sport exclusively during off-season. Yoga training, as developed in this study, seems to be recommended for the players of almost all the games so as to control or minimize the phase of super compensation.

Contribution to the Knowledge:

Super compensation is a phase that appears during off-season and. the appearance of higher percentage of this phase leads to decrease performance and skills. The players, therefore, because of such low in performance, face tremendous difficulties during next pre-season and competition season too. The present investigation, thus, could contribute a standard yoga training programme that helps to reduce the percentage of super compensation and thereby improve physical fitness and skills during off season. This investigation, therefore, adds a new knowledge to the global literature in sports about effectiveness of "newly developed yoga training" for minimizing the phase of super compensation that, in turn, maintains and/or enhances physical fitness and skills among elite/professional volleyball players.

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Effect of Yoga Practice During Offseason Super Compensation and Physical Fitness of Elite Volleyball Players

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Abstract:

This research study has been done with the objective to measure the Off-season status of super compensation and physical fitness of elite volleyball players during micro cycle and macro cycle phase of periodization. The top performance of volleyball players is influenced by many factors such as physical, physiological and psychological variables, technique, tactics, physique, body size, body composition, application of biomechanical principles etc. It has also been well established that coaches conduct special scientific training to the players considering the nature of periodization so that the player would acquire higher abilities to exhibit to performance in the competitions at the highest level in a specific sport (Slater et al., 2005). In fact, every phase of scientific training is crucial for the players. Once the competitive season is over, players need physical and mental rest to get complete recovery in Off-season. However, the transitional phase (Off-season) of training seems to be also important too. In this phase, since there is no competition, the players take rest and that is detrimental for the continuation of their performance abilities throughout the year. In fact, players need to maintain physical fitness throughout the year to meet the competitive demands. Therefore, a player needs to maintain physical fitness and skill level even during the Off-season of periodization and therefore special training is the need of day inclusively for the players of volleyball. Based on the review of literature it is evident that specially designed yoga training may contribute to compensate all the psychophysical ailments and imbalances in physical fitness and skills during the Off-season. Development and implementation of yoga training program for elite volleyball players seems to be logical especially during offseason of different cycles of sport training. It was, therefore, thought of developing and introducing a specialized yoga program during offseason exclusively for the elite volleyball players. With this view, the present form of research has been undertaken.

Keywords: Yoga practice, Offseason, Super compensation, Physical fitness, Elite volleyball players.

Introduction:

In sports science theory, supercompensation is the post training period during which the trained function/parameter has a higher performance capacity than it did prior to the training period. The top performance of volleyball players is influenced by many factors such as physical, physiological and psychological variables, technique, tactics, physique, body size, body composition, application of biomechanical principles etc.It has also been well established that coaches conduct special scientific training to the players considering the nature of periodization so that the player would acquire higher abilities to exhibit to performance in the competitions at the highest level in a specific sport (Slater et al., 2005). In fact, every phase of scientific training is crucial for the players. Once the competitive season is over, players need physical and mental rest to get complete recovery in Off-season.

However, the transitional phase (Off-season) of training seems to be also important too. In this phase, since there is no competition, the players take rest and that is detrimental for the continuation of their performance abilities throughout the year. In fact, players need to maintain physical fitness throughout the year to meet the competitive demands. Therefore, a player needs to maintain physical fitness level even during the Off-season of periodization and therefore special training is the need of day inclusively for the players of volleyball. Based on the review of literature it is evident that specially designed yoga training may contribute to compensate all the psychophysical ailments and imbalances in physical fitness and skills during the Off-season. Development and implementation of yoga training program for elite volleyball players seems to be logical especially during offseason of different cycles of sport training. It was, therefore, thought of developing and introducing a specialized yoga program during offseason exclusively for the elite volleyball players. With this view, the present research study was under taken.

Objectives of the Study:

- To measure the Off-season status of super compensation and physical fitness of elite volleyball players during micro cycle and macro cycle phase of periodization.
- To prepare and develop yoga training programme exclusively for elite volleyball players with a view to maintain physical fitness during off season.
- To evaluate the efficacy of yoga training programme on super compensation, physical fitness of the volleyball players after completion of the micro cycle and macro cycle phase of periodization.

Hypotheses:

H1: The yoga training programme with micro and macro cycles may not show a significant reduction in super compensation level of elite volleyball players during off-season.

H2: The yoga training programme with micro and macro cycles may show a significant improvement in agility, flexibility, strength and power, speed, abdominal muscles strength and reduction in body fat percentage of elite volleyball players during off-season.

Delimitation of the Study:

This study has been restricted to the school going male volleyball-players whose age ranged from 14-16 years. The present investigator has delimited to three major dependent variables viz., super compensation level and certain physical fitness parameters required for the volleyball players.

Limitations of the Study:

Due to paucity of time and busy schedule of the school, the investigator has restricted the Yoga training session for one hour daily so that the daily routine of the school is not disturbed.

Total duration of experiment for this study was limited to six weeks only.

Significance of the Study:

- The study might bring an outstanding result showing improvement in the performance in volleyball, which is a challenging sport.

- Volleyball players at national and international level may be benefited through this study.
- The newly designed yoga program may be included during off season in Indian volleyball players for maintaining physical fitness and skills.

Methodology:

Sports coaches generally adapt two types of training viz., micro-cycle training (i.e., short duration) and macro-cycle training (i.e., long duration) considering coaching strategies. In this investigation, the researcher intended to evaluate the impact of these two types of training strategies on offseason super compensation, physical fitness and skills of elite volleyball players. The study was conducted in micro cycle and macro cycle of offseason as follows:

1) Experiment on micro cycle (duration: 45 days), and
2) Experiment on macro cycle (duration: 90 days).

Experimental Design in Off-season phase on Micro cycle (Experiment-1):

The Subjects and Sampling:

Thirty male elite volleyball players (n=30), aged 14 to 16 years, volunteered in this controlled experiment-1. The subjects, participating in micro cycle of volleyball training were randomly selected from local schools located in Nanded Dist., Maharashtra by employing Fishers random table sampling technique. Making the use of the table random numbers, all the 30 subjects were divided randomly into two matched groups so that each group represents 15 players of volleyball.

Method of Experiment for Micro Cycle:

This experiment-1 was conducted during transitional phase (off-season) that lasts for 45 days of Micro cycle of training. The two groups – one experimental group (n1=15) and one control group (n2=15) participated in this experiment. This experiment considered three phases viz., pre-test, yoga training and post test.

Pre-Test:

The micro-cycle of experiment considered three major variables (viz., super compensation and physical) that were assessed at the baseline (Pretest) for subjects of both the experimental and control groups.

Training Intervention:

A specialized yoga schedule for 45 days was developed exclusively for the volleyball players considering the nature of offseason activities. The experimental group participated in the conventional lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated in the newly developed yoga schedule for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 45 days of offseason except Sundays and holidays. The method of development of Yoga training have been presented later in this subjects.

The subjects of control group participated in a lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated, in some recreation activities for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 45 days of offseason except Sundays and holidays.

It should be noted that the controlled group subjects were not allowed to participate in the yoga programme.

Post-Test:

After the off-season training for micro cycle period is over, both the groups (Exp. & Control) were post tested with the same three variables (viz., super compensation and physical fitness) like pre-test.

The schematic research design, in short, is presented in Table 1.

Table 1. Schematic representation of the design of Offseason Experiment-1 on Volleyball players (Micro cycle)

<table>
<tr><th colspan="3">Off season experiment on Micro cycle</th></tr>
<tr><th>Baseline test</th><th>Training (Transitional / Offseason)</th><th>Post test</th></tr>
<tr><td>For 1 Day</td><td>45 days</td><td>For 1 Day</td></tr>
<tr><td>Super compensation</td><td rowspan="2">Exp. Gr. (n1=15):
Lead up practice of Volleyball skills + Yoga.
Cont. Gr. (n2=15):
Lead up practice of Volleyball skills + Recreation.</td><td>Super compensation</td></tr>
<tr><td>Physical fitness</td><td>Physical fitness</td></tr>
</table>

Experimental Design in Off-season Phase on Macro Cycle (Experiment-2):

The Subjects and Sampling:

Like previous experiment, thirty male elite volleyball players (n=30), aged 14 to 16 years, volunteered for this experiment-2. The subjects, participating in macro cycle of volleyball training were selected from local schools located in Nanded, Maharashtra by employing Fishers random table sampling technique. Making the use of the table random numbers, all the 30 subjects were divided randomly into two matched groups so that each group could represent 15 players of volleyball.

Method of Experiment-2 (Macro Cycle):

This experiment-2 was conducted separately on the separate subjects of volleyball of same age group chosen from same institution (Exp=15 & Control=15) during transitional phase (off-season) for 90 days of Macro cycle of training. In fact, both experiments (i.e., exp-1 and exp-2) started simultaneously. Thus, total duration of this experiment-2 was 90 days.

Pre-Test:

In this exp-2 (for macro cycle), the same three major variables (viz., super compensation, physical fitness and volleyball skills), like exp-1, were assessed at the baseline (pretest) on all the subjects.

Training Intervention:

The same specialized Yoga Schedule Plus lead up activities, like exp-1, was also introduced for the experimental subjects of the exp-2 for a total of 90 days. Similarly, the subjects of the control group of exp-2 were also participated in the same lead up practice plus recreation (like exp-1,) for the same period of 90 days.

The subjects of the experimental group participated in the conventional lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated in the

newly developed yoga schedule for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 90 days of offseason except Sundays and holidays. Whereas, the subjects of the control group participated in the said lead-up practice of volleyball skills for 1 hr. (4:15 p.m.-5:15 p.m.) and additionally participated in same recreation activities for 1 hr. (5:15 p.m.-6:15 p.m.) for a total period of 90 days of offseason except Sundays and holidays. It should be noted that the controlled group did not participate in the yoga programme.

Post-Test:

After the off-season training for macro cycle for 90 days period is over, both the groups (Exp. & Control) were post tested with the same three variables (viz., super compensation and physical fitness) like pre-test.

The schematic research design of the experiment-2 on macro cycle, in short, is presented in Table 2.

Table 2. Schematic representation of the design of the Offseason Experiment-2 on Volleyball players (Macro cycle)

<table>
<tr><th colspan="3">Off season experiment on Macro cycle</th></tr>
<tr><th>Baseline testing</th><th>Training (Transitional / Offseason)</th><th>Post test</th></tr>
<tr><td>For 1 Day</td><td>90 days**</td><td>For 1Day</td></tr>
<tr><td>Super compensation</td><td rowspan="2">Exp. Gr. (n1=15):
Lead up practice of Volleyball skills + Yoga.
Cont. Gr. (n2=15):
Lead up practice of Volleyball skills + Recreation.</td><td>Super compensation</td></tr>
<tr><td>Physical fitness</td><td>Physical fitness</td></tr>
<tr><td colspan="3">** Although the duration of macro cycle training seems to be longer than a micro cycle; however, considering the recent trend of tough competition, the investigator intends to see if the short duration of transitional phase / offseason training phase in macro cycle especially with yoga training could be effective or not on the selected variables.</td></tr>
</table>

Dependent Variables and their measurement:

Based on literature, following variables were selected for two experiments:

Sr. No.	Component	Test Name	Comments
SUPER COMPENSATION IN OFFSEASON			
1.	Super compensation state in periodization indicates a player's recovery	Needs graphical representation (%)	This is a state that appears during offseason of either micro or macro cycle of training / periodization. If the percentage of super-compensation is higher that slows down level of physical fitness. Thus, less percentage of super compensation signifies a better state of physical fitness.

PHYSICAL FITNESS IN OFFSEASON			
1.	Agility	Shuttle Run test (Sec.)	Agility is a very important component of fitness for volleyball. The test will be performed indoor on the same surface that the game is played on.
2.	Flexibility	Sit & Reach test (Cm.)	Flexibility facilitates to prevent injury and being able to move freely around the court.
3.	Strength & Power	Vertical Jump test (Cm.)	Explosive leg power is very important for vertical jumping and speed of movement around the court.
4.	Speed	Sprint time over 20 m test (Sec.)	Acceleration is very important in volleyball. Most running is conducted over a short distance.
5.	Muscular endurance (Abdomen)	Sit up (number)	Core stability and abdominal function is important in agility and balance, and in the controlling of movement and execution of skills.
6.	Body Fat	Body fat monitor (%)	Excess body fat affects the basketball player's ability to jump vertically, move freely around the court, and the extra weight increase early fatigue.

Development of Yoga Intervention:

The research method on development of Yoga training programme considered following steps generally used in developmental research (Bera, 1993; Bhattacharyya and Bhattacharyya, 1987):

- The researcher recorded the level of difficulty of performing each yoga posture by using a checklist and Yoga programme was finalized as follows:
  A. **Sitting Asanas:** Vajrasana, Janu Shirasana, Ustrasana, Vakrasana, Mayurasana
  B. **Supine Asanas:** Ardha Halasana, Halasana, Pavanmuktasana, Setu Bandhasana, Shavasana.
  C. **Prone Asanas:** Bhujangasana, Dhanurasana, Makarasana
  D. **Standing Asanas:** Ardhakati Chakrasana, Padahastasana, Trikonasana, Tadasana, Adhomukha
  E. **Breathing exercises:** Anulom-viloma, Bhastrika, Kapalbhati

Statistical Techniques:

The data was processed through descriptive statistics. Further, was analyzed through inferential statistics as follows:

- The percentage-wise data of super compensation phase, numerical data on physical fitness during offseason was analyzed through descriptive statistics.
- The data analysis of each experiment was done separately considering inferential statistics:
  → For analysis of data on super compensation level, Chi square test (X^2 test) was employed.
  → For analysis of physical fitness data, 2 × 2 × 6 Factorial ANOVA followed by Scheffe's post hoc test was employed.

Major Findings:

A) Findings on Super compensation

- The result of two phases of experiment revealed that micro-cycle of training programmes, during off-season, could prevent the increasing trends in percentage of super-compensation phase in off-season ($X2 = 10.84$, $p<0.01$); whereas similar result was also evident in case of the impact of macro-cycle training on super-compensation ($X2 = 10.06$, $p<0.01$).

B) Findings on Physical fitness

- In case of physical fitness factors, the result of experiment-1 revealed that the yoga training with micro-cycle during off-season could improve agility (CD=0.26, $p<0.05$), flexibility (CD=0.26, $p<0.05$), strength and power (CD=0.29, $p<0.05$), speed ability (CD=0.24, $p<0.05$), abdominal muscles strength (CD=0.28, $p<0.05$) and body fat percentage (CD=0.25, $p<0.05$) respectively.
- Similarly the result of experiment-2 revealed that the yoga training with micro-cycle during off-season could improve agility (CD=0.30, $p<0.05$), flexibility (CD=0.38, $p<0.05$), strength and power (CD=0.33, $p<0.05$), speed ability (CD=0.34, $p<0.05$), abdominal muscles strength (CD=0.35, $p<0.05$) and body fat percentage (CD=0.34, $p<0.05$) respectively.

The result of the said two experiments revealed that both the micro-cycle and macro-cycle of yoga training during off-season could improve the components of physical fitness among volleyball players.

Conclusion:

Based on the results and findings, the present investigation draws following conclusion:

- Implementation of Yoga training in both micro-cycle and macro-cycle can effectively control the trends of super-compensation during off-season among the volleyball players. However, the result of macro-cycle of training was more effective than the micro cycle to control the trends of super compensation.
- Yoga training in both the experiments (micro-cycle and macro-cycle) can effectively maintain physical fitness of volleyball players during off-season. Obviously, the impact of macro-cycle training was found better than the micro-cycle of training in maintaining physical fitness of the volleyball players during off-season.

Recommendations:

- Yoga training can effectively be included in the training schedule of the elite volleyball players irrespective of micro and/or macro cycle phases especially during off-season.
- Super compensation is a phenomenon which is applicable in every sport exclusively during off-season. Yoga training, as developed in this study, seems to be recommended for the players of almost all the games so as to control or minimize the phase of super compensation.
- Physical fitness is important attribute for winning a volleyball competition. Therefore, standard training intervention can effectively be incorporated during off season for continuous improvement in physical fitness. The result of this investigation recommends a specialized yoga training programme exclusively for the elite volleyball players who participate in off-season activities.

Contribution to the Knowledge:

Super compensation is a phase that appears during off-season and. the appearance of higher percentage of this phase leads to decrease performance and skills. The players, therefore, because of such low in performance, face tremendous difficulties during next pre-season and competition season too. The present investigation, thus, could contribute a standard yoga training programme that helps to reduce the percentage of super compensation and thereby improve physical fitness during off season. This investigation, therefore, adds a new knowledge to the global literature in sports about effectiveness of "newly developed yoga training" for minimizing the phase of super compensation that, in turn, maintains and/or enhances physical fitness among elite / professional volleyball players.

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Analytical Study to Compare the Performance of Athletes Who includes Yoga in their Training Schedule

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Abstract:
Aims: To compare the performance of Athletes who include yoga in their training schedule.
Methods: Over a 2 month period, a yoga group (YG) of athletes (n = 14) took part in biweekly yoga sessions; while a nonyoga group (NYG) of athletes (n = 12) took part in no additional yoga activity. Performance measures were obtained immediately before and after this period. Measurements of flexibility and balance, included: Sit-reach (SR), shoulder flexibility (SF), and stork stand (SS); dynamic measurements consisted of joint angles (JA) measured during the performance of three distinct yoga positions (downward dog [DD]; right foot lunge [RFL]; chair [C]).
Results: Significant additions were seen in the YG for adaptability (SR, P = 0.01; SF, P = 0.03), and balance (SS, P = 0.05). No huge contrasts were seen in the NYG for adaptability and equilibrium. Altogether, more noteworthy JA were seen in the YG for: RFL (dorsiflexion, l-ankle; P = 0.04), DD (expansion, r-knee, P = 0.04; r-hip; P = 0.01; flexion, r-shoulder; P = 0.01) and C (flexion, r-knee; P = 0.01). Critical JA contrasts were seen in the NYG for: DD (flexion, r-knee, P = 0.01: r-hip, P = 0.05; r-shoulder, P = 0.03) and C (flexion r-knee, P = 0.01; augmentation, r-shoulder; P = 0.05). A between bunch examination uncovered the critical contrasts for: RFL (l-ankle; P = 0.01), DD (r-knee, P = 0.01; r-hip; P = 0.01), and C (r-shoulder, P = 0.02).
Conclusions: Results recommend that an ordinary yoga practice might build the adaptability and equilibrium just as entire body proportions of male school competitors and accordingly, may improve athletic exhibitions that require these attributes.

Keywords: Athletes, Performance, Training.

Introduction:

With more clear proof of its advantages, mentors, and competitors might better see that yoga plays a part in improving presentation. The point of this investigation was to decide the effect of yoga on male school competitors Practicing yoga has been related with numerous positive results in different parts of actual execution and well-being. The positive wellbeing results that have been noticed remember a decline for blood pressure, an abatement blood lipid values, a reduction in weight index, just as an improvement in pneumonic function. From a presentation angle, yoga has been accounted for to upgrade muscle torque, expansion in handgrip strength, decline low back pain, defer the beginning of muscle irritation following demanding activity, increment adaptability and balance just as worked on cardiovascular performance. The effect of yoga has additionally been connected to enhancements in emotional well-being. Such certain impacts remember decreases for anxiety, sorrow reduction, upgraded the condition of relaxation, and upgraded motivation. moreover, there might be immediate advantages to further develop the properties usually connected to athletic performance. With more clear proof and a superior comprehension of its effect on development execution yoga could turn into a significant part of an exhaustive preparing

system close by or in any event, supplanting those of customary exercises. The reason of yoga contrasts from explicit kinds of preparing in view of its complex necessities that challenge the body in changed ways. When done appropriately, competitors can improve the body working by expanding the development affordances and limiting the development limitations. The actual act of yoga, comprises of keeping up with customary and consistent breathing while at the same time changing the situating of the body through a progression of Asanas (static stances) during which all the designated and supporting muscle bunches are locked in (under pressure). Associating breathing mechanics to a drew in musculoskeletal framework while playing out the postures gives an all encompassing test to the entire body. For instance, while taking on a Warrior 2 (standing lurch) position an upstanding middle is curved internal and the hips and head are contorted the other way; with accentuation on the strong exertion of the arms and legs. The arms are lined up with the shoulders and are extended outward quite far while spraining and inside turning the following leg. During these developments, the circumstance and term of every breath are controlled to correspond with the span of each posture just as with the inception of advances between each pose. Traditional athletic preparing uses explicit exercises to work on the particular spaces of wellness. For instance, rehashed times of long-distance running will challenge the cardiovascular framework and in this manner, increment the cardiovascular wellness. Normal weight lifting difficulties the contractile limit of explicit solid gatherings and will build the strong strength. Conventional preparing, along these lines, is done to upgrade the segments of wellness that add to a given games performance. Thus, athletic execution is accepted to be improved as execution in the parts of wellness identified with that game improves. Albeit such preparing boosts the particular segments of wellness, challenges happen in using these particular wellness gains to upgrade athletic performance. One way to deal with use explicit wellness gains is to structure preparing practices so they intently identify with the developments of that game. For instance, preparing utilizing the leg augmentation lifts are regularly utilized on the grounds that they intently take after a soccer kick. Over and again practicing the genuine soccer kick (kicking drills) following a meeting of significant burden lifting could likewise achieve the equivalent thing. Despite enhancements in the solid perseverance of a soccer kick because of preparing, proof that these additions have added to athletic execution is hard to see. Interestingly, yoga is an action that can all the while upgrade a few explicit segments of wellness. For example, following a long time of training, joints involving development in their motor chains might be streamlined through expanded arrangement, expanded scope of movement, and a more noteworthy muscle filaments recruitment. This more ideal exhibition happens as adaptability increments and muscle strain lessens subsequently creating a more prominent extending result on the encompassing connective tissue to eventually "relax" it, accordingly, decreasing the heap put on the tendons and joints. along these lines, new development alternatives become conceivable as connective tissues become laxer, muscles become more dynamic, and joints move more freely. Because of its complex accentuation, yoga is a profoundly organized action that mirrors basic parts of athletic execution including balance, deftly, strong strength, muscle perseverance, and development effectiveness (coordination). As such, rehearsing yoga might variedly affect athletic performance. For example, fruitful soccer players should constantly move their body in one of a wide range of headings while at the same time keeping up with the adjust and broaden joints past a typical scope of movement. Also, an advanced yoga meeting amplifies the equilibrium and joint scope of movement by intentionally changing the body through a progression of compelling situations as smoothly and

productively as could really be expected. The motivation behind this paper, subsequently, is to examine if and what yoga can mean for explicit parts of wellness identified with athletic execution. Consequently, through a more noteworthy upgrade of parts of wellness execution the limit with respect to athletic execution should increment. To improve the use of our outcomes to cutthroat circumstances, we played out our analysis on school competitors what already's identity was all around prepared for their athletic occasions.

Hypothesis:

We hypothesized that the regular practice of yoga positioning training for 2 months in college athletes would enhance the measures of balance, flexibility, and joint angles (JA) measures

Methods:

In this 2 month starter study, pre-post measures in a quasi-experimental configuration were done to evaluate the effect of yoga on explicit parts of athletic wellness. Two autonomous gatherings occupied with independent athletic pursuits were utilized. Enrollment of members happened through the accessibility of school mentors permitting the specialists to gather the information on their competitors. Members (N = 26) were Division II male competitors, who went to a medium-sized Midwestern University throughout a fall term. The subjects were individuals from long running race. The members had no broad related knowledge with yoga and were liberated from injury. They finished a clinical history survey and marked agree structures before being cleared to partake in the investigation and were guileless to the motivation behind the examination. The college institutional audit board endorsed every one of the test systems preceding information assortment.

Procedures:

The yoga bunch (YG) was involved long running racers (mean age = 19.8 years, s = 1.05) while the nonyoga bunch (NYG) was also contained long running racers (mean age = 20.3 years, s = 1.06). During a similar multi month residency, individuals from the two gatherings finished the routinely booked game explicit instructional courses. While a significant part of the preparation for the two games was fundamentally unrelated, normal exercises included static extending works out, weight preparing, and running. Not with standing their customary preparing, the YG subjects participated in ensured instructor-led yoga meetings 2 mornings (Tuesday and Thursday) every week prior to some other active work. During the hour-long meetings, the educator exhibited the series of yoga acts that were then mirrored by the subjects. Subjects in the two gatherings were approached to avoid any extra preparing exercises. Proportions of adaptability, equilibrium, and JA were taken preceding and not long after the 2 month study.

Measures:

Since both adaptability and equilibrium are the fundamental segments of many brandishing exercises, we picked these to give a quantifiable assessment of how yoga might add to improving of performance. notwithstanding these actions, we additionally estimated the entire body situating to show the progressions in different JA. JA measures were utilized to depict the active chains performed during different yoga positions. Together, such qualities ought to exhibit that rehearsing yoga upgrades the presentation of explicit segments of

wellness and conceivably clarify how yoga might manage the cost of such change. Evaluations for each gathering were finished independently. Two days preceding the main yoga meeting the evaluation convention was finished for the YG; the next day a similar testing convention was finished for the NYG. At some point, following multi month yoga meetings, the testing convention was rehashed with the YG competitors and one more day after the fact with the NYG competitors. Without earlier warm up, the accompanying appraisal convention was finished: (1) Shoulder adaptability (SF), (2) Sit-reach (SR), (3) Stork stand (SS), (4) directly forward lurch (RFL), (5) descending canine (DD), and (6) seat. The proportions of adaptability were dictated by a SF test and SR, while a trial of offset was directed with a stork stand (SS) test. The best of three endeavors was recorded. Subjects were video recorded for surveying: Right forward jump (RFL), DD, and seat [Figure 1]. This appraisal comprised of deciding the maximal JA for lower leg, knee, hip and shoulder joints achieved during each position. During this evaluation, the members were told to remain on their right side toward the camera and stand firm on every one of the three footings for 10–15 s. Dissects of the video accounts were finished utilizing Dartfish following programming. For one-sided joint situating points, for example, the position embraced during a rush, both the right and left not really settled. For two-sided situating, for example, the position took on during DD and seat, just the right JA were estimated.

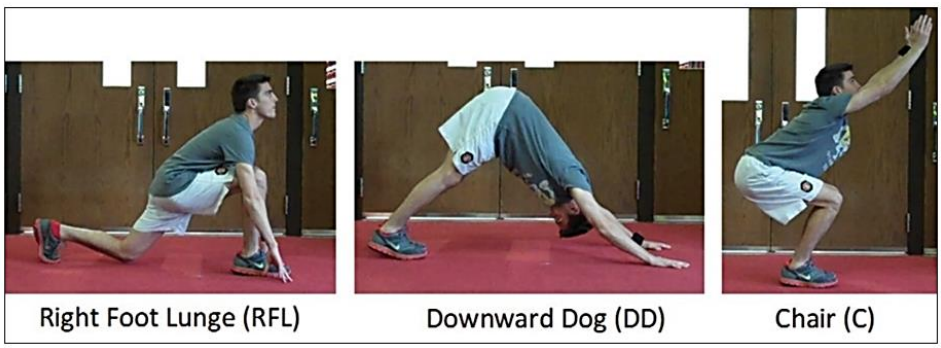

Figure 1. (a-c) Positions for Holistic Measure of Joint Angles

Enlightening and inferential factual examines were finished for both adaptability and equilibrium and entire body measures. The accessibility of subjects from two separate games confined between bunch examinations and consequently inside bunch correlations were stressed. Pre-post examinations of means were determined for all deliberate qualities. Change scores ($\alpha = 0.05$) were investigated utilizing matched t-test and Welch's two-sample t-test.

Results:

Flexibility and Balance:

Gains in adaptability (SR and SF) and equilibrium (SS) were seen in the YG over the 10-week period [Table 1]. SR [Figure 2] execution had a mean increment from 21.4 inches (standard deviation [SD] = 3.9) to 23.1 inches (SD = 2.5) with distinction of 1.8 inches and SF [Figure 3] had a mean increment from −0.1 inches (SD = 3.1) to 0.7 inches (SD = 2.9) with a distinction of 0.7 inches. Stork position time [Figure 4] for this gathering additionally had a mean increment from 12.5 s (SD = 6.5) to 16.5 s (SD = 8.3) with a distinction of 4.0 s. As opposed to the progressions in the YG, the NYG declined in both adaptability and equilibrium [Table 1]. SR [Figure 2] mean execution diminished from 21.4 inches (SD = 2.7) to 21.0 inches (SD = 3.6) with a distinction of −0.4 inches and SF [Figure 3] had a mean

diminished from −1.1 inches (SD = 3.8) to −2.1 inches (SD = 2.9) with a distinction of −1.0 inch. Stork position [Figure 4] time for this gathering additionally had a mean decline from 22.7 s (SD = 8.8) to 18.6 s (SD = 9.6) with a distinction of −4.1 s. An inside bunch t-test correlation of these actions uncovered the critical additions in execution for the YG subjects in SR (P = 0.01), SF (P = 0.03), and SS (P = 0.03). No huge contrasts inside the gathering for the NYG subjects were noticed. What's more, between bunch (YG-NYG) examinations uncovered the critical contrasts (*) in SR (P = 0.04) and SS (P = 0.04) toward the finish of the 2 months preparing period [Table 1].

Whole Body Measure:

A within group comparison of pre-post JA difference was completed for each of the 3 positions [Tables 2 and 3]. An illustration of the pose and direction of these significant JA changes for the YG can be seen in Figure 5. Significant differences during the RFL included a mean increase of −6.6° (SD = 11.3) in dorsiflexion (P = 0.04). Significant differences in the DD position consisted of a mean increase in knee extension (P = 0.04) of + 3.7° (SD = 6.4), a mean increase in hip extension (P = 0.01) of + 10.7° (SD = 13.1) and a mean increase in shoulder flexion (P = 0.01) of −7.87° (SD = 8.8). Significant changes observed during the chair position consisted of a mean increase in knee flexion (P = 0.01) of + 12.9° (SD = 8.6).

Table 1. YG and NYG Traditional Measures

Group	Measure	Sit reach (inches)	Shoulder flexibility (inches)	Stork stand (seconds)
YG	Change	Increase	Increase	Increase
	Difference	1.8	−1.0	4
	P value	0.01*	0.03*	0.03*
NYG	Change	Decrease	Decrease	Decrease
	Difference	−0.4	−1.0	−4.1
	P value	0.22	0.18	0.11
YG-NYG	*P* value	0.04*	0.14	0.04*

YG=Yoga group; NYG=Nonyoga group

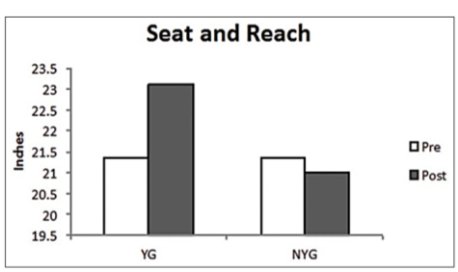

Figure 2. Pre-post seat and reach averages (inches) for yoga group and nonyoga group

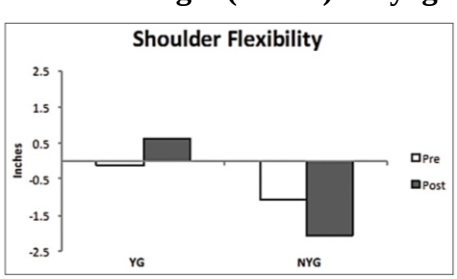

Figure 3. Pre-post should flexibility averages (inches) for yoga group and nonyoga group

Critical contrasts (*) saw in the NYG subjects happened in the DD and the seat positions. A representation of the posture and heading of these huge JA changes for the NYG can be found in Figure 6. Noticed contrasts for the DD position remembered a mean increment for knee flexion (P = 0.01) of − 11.44° (SD = 11.6), a mean expansion in hip flexion (P = 0.05) of − 11.2° (SD = 17.9) and a mean expansion in shoulder flexion (P = 0.03) of −15.8° (SD = 22.2). Changes in the seat position comprised of a mean expansion in knee flexion (P = 0.01) of −9.06° (SD = 9.4) and a mean expansion in shoulder augmentation (P = 0.05) of + 6.14° (SD = 9.5) [Table 3]. Contrasts [Table 4] were additionally seen between the gatherings in the RFL [Figure 7], DD [Figure 8] and seat [Figure 9] positions. A correlation of JA during the RFL uncovered a mean contrast (P = 0.01) in the left lower leg of 9.4°. Mean JA contrasts in the DD position of 15.1° were found in the right knee (P = 0.01) and 21.9° in the right hip (P = 0.01). Mean contrasts among YG and NYG subjects during the seat present were noticed for the right shoulder (P = 0.02) of 11.7°. The discoveries for both adaptability and equilibrium gauges just as entire body measures delineate the critical positive changes because of the interest in yoga preparing in the YG just as the huge contrasts among YG and NYG subjects.

Discussion:

In this preliminary study, all athletes took part in their regular training programs. Typical sessions included flexibility exercises as part of their regular warm up. routine, strength training, skill-specific drills, as well as participating in the sport itself (both in competition and in regular practice). In the YG, additional yoga training was provided. Both flexibility training and yoga are known to enhance the range of motion of joint systems in comparison to no training. Because all the athletes participated in stretching exercises as part of their warm ups, we expected that both groups would improve in flexibility tests.

Table 2. Summary of YG Joint Angles

Position	Joint	Diff	Movement	T test (P value)
R-foot lunge	Right knee	−5.04	Flexion	0.13
R-foot lunge	Right hip	−1.13	Flexion	0.51
R-foot lunge	Right shoulder	3.92	Extension	0.27
R-foot lunge	Left knee	−2.69	Flexion	0.56
R-foot lunge	Left ankle	−6.57	Dorsiflexion	0.04*
Downward dog	Right ankle	−1.58	Dorsiflexion	0.50
Downward dog	Right knee	3.70	Extension	0.04*
Downward dog	Right hip	10.70	Extension	0.01*
Downward dog	Right shoulder	−7.87	Flexion	0.01*
Chair	Right ankle	−5.35	Dorsiflexion	0.10
Chair	Right knee	−12.85	Flexion	0.01*
Chair	Right hip	−1.92	Flexion	0.46
Chair	Right shoulder	−5.57	Flexion	0.21

YG=Yoga group

Table 3. Summary of Significant NYG Joint Angles Difference

Position	Joint	Diff	Movement	T test (P value)
R-foot lunge	Right knee	−2.54	Flexion	0.64
R-foot lunge	Right hip	−1.04	Flexion	0.73
R-foot lunge	Right shoulder	9.27	Extension	0.20
R-foot lunge	Left knee	−6.04	Flexion	0.25
R-foot lunge	Left ankle	2.83	Plantar flexion	0.32
Downward dog	Right ankle	−0.41	Dorsiflexion	0.93
Downward dog	Right knee	−11.44	Flexion	0.01*
Downward dog	Right hip	−11.20	Flexion	0.05*

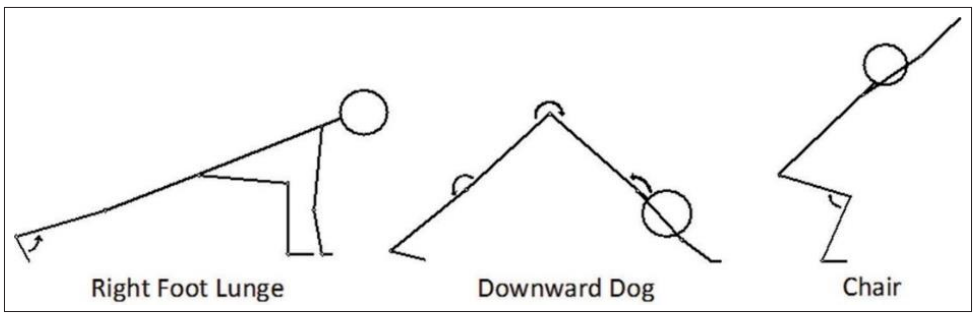

Figure 5. Yoga group significant joint angle changes

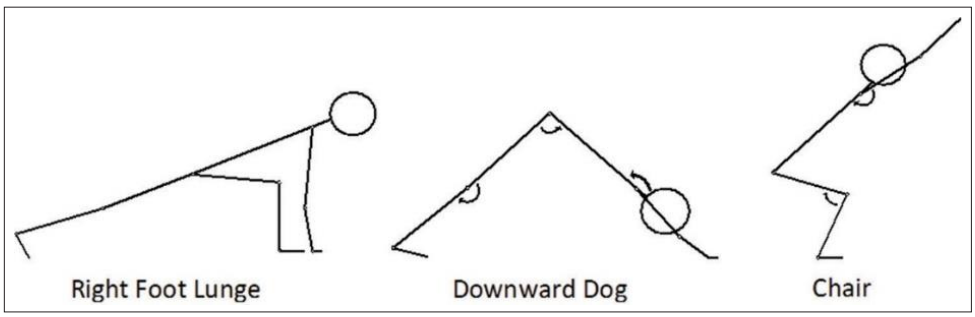

Figure 6. Non yoga group significant joint angle changes

Table 4. Summary YG and NYG Joint Angles Difference

Position	Joint	Difference in degree	Difference between YG and NYG
R-foot lunge	Right knee	2.5	0.34
R-foot lunge	Right hip	0.09	0.49
R-foot lunge	Right shoulder	5.35	0.25
R-foot lunge	Left knee	3.36	0.31
R-foot lunge	Left ankle	9.4	0.01*
Downward dog	Right ankle	1.17	0.41
Downward dog	Right knee	15.14	0.01*
Downward dog	Right hip	21.9	0.01*

Downward dog	Right shoulder	7.93	0.13
Chair	Right ankle	1.96	0.29
Chair	Right knee	3.8	0.15
Chair	Right hip	5.51	0.12
Chair	Right shoulder	11.72	0.02*

Our outcomes demonstrate for the first occasion when that when added to the conventional adaptability works out, yoga preparing essentially improves the proportions of adaptability. Conversely, the NYG had no improvement and sometimes, the adaptability declined. The YG subjects additionally had more prominent adaptability than the individuals from the NYG. In this way, 2 months of rehearsing yoga improved the adaptability in the effectively preparing competitors while warm up extending didn't: An outcome that might have significant ramifications for sports preparing. Since their ordinary act of preparing exercises (free weight preparing and rehearsing sport abilities) tested soundness and equilibrium, we expected that upgrades in balance would be seen in both the YG and NYG competitors. Moreover, in light of the fact that yoga practice has been displayed to upgrade the balance. we expected that the consideration of a normal yoga practice would additionally improve the equilibrium. True to form, the YG competitors worked on in balance anyway the NYG competitors didn't. The effect of yoga was additionally exhibited with fundamentally better equilibrium for YG versus NYG. These discoveries propose that the extra 2 months of yoga practice to a customary preparing routine emphatically affects balance. Consistently, preparing that stresses the different segments of wellness immediately ought to all the more promptly competitors showed more prominent dorsiflexion of the lower leg during RFL, while no critical changes were noticed for the NYG competitors. A between bunches examination for the RFL demonstrates that the YG competitors used more dorsiflexion of left lower leg position while the NYG competitors embraced a more plantar flexed position. These varieties are interesting that YG competitors are better ready to adjust their body weight and erratically stretch their back knife muscles than NYG competitors. In the DD position, the NYG competitors had fundamentally more noteworthy knee flexion, hip flexion, and shoulder expansion. Consequently, their hips were brought down, and their weight moved way from the chest area. These progressions demonstrate the snugness in the hamstrings and the lower back muscles. The YG competitors expanded the knee expansion and hip augmentation, combined with more noteworthy shoulder flexion. In this manner, the YG competitors were better ready to all the while protract hamstring and lower back muscles and keep a flexed shoulder during the DD. In general, the NYG competitors might have less fortunate hamstring and lower back adaptability while competitors in the YG might be better ready to whimsically stack the hamstring and lower back muscles. Joint changes saw during the seat position recommend that competitors in both the YG and NYG displayed more prominent knee flexion. For the NYG competitors, this shift was combined with an expanded shoulder augmentation. Such situating happens as the arms are brought down to give an offset and a more flexed knee position then, at that point becomes conceivable. Interestingly, the YG competitors kept up with shoulder situating while at the same time showing a more prominent curve in the knee, in this manner, showing a more dynamic and adjusted situating. These varieties are interesting that NYG competitors can flex their knees by offsetting body weight about their focal point of mass; with a more flexed shoulder situating, the YG competitors can keep up with balance through a more drawn in lower body.

Conclusion:

The planned motivation behind this quasi-experiment was to underscore the effect yoga might have on explicit parts of wellness on competitors. On the side of this view, the competitors who rehearsed yoga for a very long time showed the improvement in both adaptability and equilibrium measures. In view of past discoveries, it would be normal that YG competitors would reliably beat the NYG competitors in adaptability and equilibrium. One likely clarification for the improvement in these actions might be found from changes in entire body measures. Expansions in JA esteems might demonstrate a more ideal dynamic chain that might take into account improved adaptability and equilibrium. Also, both examination bunches partook in their particular game preparing exercises proposed to augment the particular parts of athletic execution. Be that as it may, accentuation on a specific part of wellness might think twice about parts of wellness. For instance, a competitor who lifts substantial burdens during chest area activities might encounter gains in greatest chest area strength just as a decrease in SF. In this view, the particular games preparing related with the NYG might clarify the deficiency of adaptability and equilibrium. Conversely, participating in an extra action that stressed different segments of wellness, may clarify the improved proportions of adaptability and equilibrium for the YG competitors. To expand the preparation openings, exercises that all the more successfully further develop athletic execution are basic. Since sport is a multi-dimensional try, competitors might consider partaking in exercises that improve the particular elements of wellness just as the parts of the numerous elements of performance. Our discoveries recommend that the act of yoga as a feature of conventional preparing strategies upgrades the segments of wellness that are the fundamental segments of sports execution. In this way, the act of yoga might give an extra preparing alternative to upgrade execution. Future investigations in this space ought to investigate the effect of yoga preparing on explicit parts of wellness according to don explicit errands or analyze bunch competitors from a similar game. Thusly, it could be feasible to show the effect of yoga on sports execution.

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Personality Analysis from Gender Point of View: A Case Study of Karate Athletes in Central Java Sports Training and Education Center for Students

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Abstract:

Purpose of this study has to determine the personality profile of male karate athletes and female karate athletes of PPLOP Central Java. The method used is a survey through a quantitative approach. The sample in this study amounted to 10 with details of 6 men and 4 women with a total sampling technique. The data collection instrument was carried out using an SPQ 20 questionnaire distributed online with 168 questions. The data analysis used in this research is descriptive exploration of SPSS. The results of the study obtained that women excel in the aspects of Achievement 4.33, Adaptability 4.75, Competitiveness 4.79, Conscientiousness 4.63, Visualization 4.64, Intuition 4.00, Goal Setting 4.56, Managing Pressure 3.96, Self Efficacy 4.25, Fear of Failure Control 3.67, Flow 4.69, Stress Management 4.63, Emotion 4.31, Self Talk 4.83, Self Awareness 4.75 and Ethics 4.90. Meanwhile, male have better Personality than female in 3 aspects, namely Relationships 3.88, Aggressiveness 3.27 and Power 3.04. It can be concluded that women have better personality than men in the aspects of Achievement, Adaptability, Competitiveness, Conscientiousness, Visualization, Intuition, Goal Setting, Managing Pressure, Self Efficacy, Fear of Failure Control, Flow, Stress Management, Emotion, Self Talk, Self Awareness and Ethics. Almost all of them have significant differences between male athletes and female athletes. And there is no significant difference in the Empathy item.

Keywords: Personality, Karate, PPLOP Central Java.

Introduction:

Sport is a physical activity that has developed rapidly to support physical, spiritual, social potential and also as a means of achieving achievement. Martial sports such as Karate are closely related to body contact or physical touch that can spur emotional reactions. The victory and defeat of the sport of Karate is very susceptible to anxiety and mood factors. So the appearance of karate seems very dependent on the mood (Robazza, Bortoli, & Hanin, 2004). To prepare mental karate, it is necessary to have cognitive, emotional and behavioral strategies to determine the level of the ideal psychological condition and can be known during competitions or practice during practice (Suarez & Sabates, 2020). As a supporter of the athlete's performance, it is necessary to pay attention to the role from a gender perspective to find out more complex personalities.

The word gender is the difference between male and female which can be interpreted as differences in roles, functions, status and responsibilities that have been embedded by

cultural construction through the process of socialization from one generation to the next (Soysa & Zipp, 2019). According to (Claringbould & Knoppers, 2012) explains that gender is a cultural concept that becomes a differentiator between the emotional characteristics of men and women which can be seen from the roles, behaviors, mentalities that have developed rapidly in society.

The Student Sports Education and Training Center (PPLOP) is a national sports coaching system that has a role to produce athletes who excel in both academic and non-academic fields (Perdana, Kristiyanto, & Doewes, 2018). From the explanation above, athletes with a focused coaching process such as PPLOP cause several problems. The main purpose of this study was to determine the personality profile of male and female karate athletes of PPLOP Central Java.

Methods:

The method used is a survey through a quantitative approach. The sample in this study were 10 PPLOP Karate athletes from Central Java with details of 6 males and 4 females using total sampling technique. The study was conducted for 1 month. The data to be taken in this study is information about the personality profiles of male and female karate athletes of PPLOP Central Java.

The data collection instrument was carried out using an SPQ 20 questionnaire (myskillprofile.com) which was distributed online containing 168 questions with responses stating the possibility of describing their behavior using a 5-point Likert scale (never/almost never, sometimes, quite often, very often). and always/almost always), and is applied only once and also has a reliability scale of 0.6 to 0.8. SPQ assesses 20 dimensions of mental toughness which includes 4 aspects of achievement and competition, confidence and toughness, interaction and sportsmanship, aggressiveness and power. The analysis of the data used in this study is a descriptive exploration of SPSS whose data will be analyzed according to the norms contained in SPQ 20.

Result and Discussion:

Table 1. Calculation of Statistics for PPLOP Karate Athletes in Central Java

Framework of Mental Skills	Male	Female	Std. Deviation	T-test
Achievement	4.06	4.33	0.19	0.02
Adaptabillity	4.04	4.75	0.50	0.05
Competitiveness	4.25	4.79	0.38	0.03
Conscientiousness	4.50	4.63	0.09	0.00
Visualization	4.24	4.64	0.28	0.02
Intuition	3.90	4.00	0.07	0.00
Goal Setting	4.11	4.56	0.31	0.03
Managing Pressure	3.94	3.96	0.01	0.00
Self Efficacy	3.89	4.25	0.25	0.02
Fear of Failure Control	3.61	3.67	0.04	0.00
Flow	4.13	4.69	0.39	0.04
Stress Management	4.47	4.63	0.11	0.01
Emotion	3.88	4.31	0.30	0.03
Self Talk	4.19	4.83	0.45	0.04
Self Awareness	4.40	4.75	0.24	0.02
Ethics	4.63	4.90	0.19	0.01

Framework of Mental Skills	Male	Female	Std. Deviation	T-test
Emphaty	3.90	3.90	0.70	0.07
Relationships	3.88	3.75	0.09	0.01
Aggressiveness	3.27	3.15	0.08	0.01
Power	3.04	2.75	0.20	0.03

From table 1 it is know that the highest scores for male and female athletes are on the same item, namely Ethics (Ethics) with each score for male athletes 4.63 and female athletes 4.90. Meanwhile, the lowest score is on the same item, namely Power with a score of 3.04 and 2.75.

Achievements and competitiveness of female are superior than male. Female athletes tend to be more focused and easy to receive input from coaches than male athletes. According to (Florin & Tin, 2013) in the Adaptability factor, women are more adaptable because women have self-reinforcement such as caring in "sharing and caring" between women. Female athletes are easier to adapt in the quarantine training process because they consider athletes as family, especially women who have a high sensitivity compared to men.

Seen men are faster and stronger in attacking than women. In the aspect of Fear of Failure, it can be seen that women are more afraid of failure than men. For example, before a match, women usually see a chart or schedule of matches with whom she will play. And when he gets a good opponent he feels insecure or inferior and causes him to be down before the match. Unlike men who usually don't care who they face against. On the emotional item, men are superior to women, that the emotional level of male martial arts athletes when competing is higher than female athletes. Because male athletes tend to be hasty in acting and easily provoked by emotions.

Male athletes are superior in aggressiveness and strength compared to female athletes. According to (Bjorkqvist, 2018) men are more aggressive directly with actions while women are mentally or from within. Men behave aggressively faster than women to express their aggressiveness physically, Men are superior in power items or power than women. (Anderson et al., 2005) revealed that "a male domain" (male dominance) This is proven in accordance with the data analysis that has been determined, that men are indeed stronger than women.

Conclusion:

The conclusion of this study is that the Personality of female athletes is better than male in the sub-indicator Adaptibility, Competitiveness, Conscientiousness, Visualization, Intuition, Goal Setting, Managing Pressure, Self Efficacy, Fear of Failure Control, Flow, Stress Management, Emotion, Self Talk, Self Awareness and Ethics. While male athletes Personality is more prominent than female in 3 aspects, namely Relationships, Aggressiveness and Power. Of the total 20 mental skills items, almost all of them have significant differences between male athletes and female athletes. And there is no significant difference in the Empathy item.

Suggestion:

There is a longitudinal study that allows evaluation of the personality development of PPLOP karate athletes in Central Java and compares athletes with different performance levels with different samples of elite athletes and non-elite athletes for better differentiation.

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