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## *Editorial*

*This is the foundation year for India. Indian Politics, our sports, Government Policies are going through landscape changes which will have a bearing effect on many years to come. In recent times, we saw this Union Budget presented to build an entrepreneur in an Agricultural Sector as well as Rural as well as Urban. The idea of creating and chasing your dream is catching up and more so because the average Indian is a 25-30 year old youth. This Union Budget is the most balanced budget in recent times looking at laying foundation for the Indian Growth Story in the years to come. Higher allocation of spending on the Agricultural sector, Rural Sector, Infrastructure, etc will be an ideal beginning. Electrification of Villages is other big thing happening in muted voice which according to the concerned Minister, Electrification of all Villages will be done by March 2017. This along with other aspects, will surely create an ideal business environment in India. Some more tax norms are expected to be made liberal. The other big thing that is happening in India is the Cricket World Cup. It is the first time we are hosting T20 World Cup and with the form the Team is in, We can expect a 2011 encore by Dhoni and Co.*

*Every story happening around gives only one moral - That is Believe in your dreams, Chase it until it becomes Reality.*

*The writing of Indian Growth story has already begun. And as it is seen, the youth of India have plenty of things to look forward to. It is time to build on your ideas and back it till it is executed. Team work, Planning, Execution of are some of the important aspects of Entrepreneurship that will be honed in today's youth.*

*We are living in a vibrant society where Debate is an important aspect of our society. And even though there are many good things happening Some Problems keep Haunting the growth story of India. Drought, Unemployment, etc are still hovering over India's growth story.*

*Debating is not just placing your ideas but listening to new ones too. It is an exchange of different ideas moulding into one great Vision. We, as researchers should place our research on such current affairs, judge the recurring impact on our future and exchange ideas to form an impactful solution to impending problems. Innovation is the key to every problem, and for every problem, Research is where we began.*

## Effect of Aerobics Exercise on Training Cessation in Physiological Parameters

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### Abstract

The present study was designed to find out the effect of aerobics exercise on training cessation in physiological parameters. The selected subjects underwent their routine aerobics exercise training for the period of 6 weeks while in-taking high fat foods, then underwent training cessation for four weeks where they follow up their same meal. The pre-test and post-test were conducted for the group. The Resting Heart Rate, Breath Hold Timing and forced vital capacity were measured. The data pertaining to the variables collected from the group before and after the training period were statistically analyzed by using T- RATIO to determine the significant differences and tested at 0.05 level of significance. The results of the study showed that Resting heart rate and breath hold timing has higher as a result of training cessation on aerobics exercise and forced vital capacity decreases as a result of training cessation on aerobics exercise, hence the hypothesis was accepted at 0.05 level of confidence for Resting heart rate.

**Keywords:** Effect of aerobics exercise on training cessation in physiological parameters

### Introduction

The word aerobic meaning with oxygen to represent idea. Even so the dynamics of the idea are more complicated than implied by the definition. Aerobic can be viewed as an intricate system of bodily supply and demand. That is the body needs energy for any kind of activity and the need is filled by burning off the foods that eat. Oxygen is the spark the fuel needs to burn regardless aerobics is the word in general use. The fact is that Cooper (1969) codified and organized what fitness means to many people. He is generally credited with being one of the main forces of the current fitness craze. The majority medical opinions that aerobic programs strengthen heart muscle, increase the efficiency of lungs and offer other wonderful benefits. Aerobic exercise refers to exercise that involves or improves oxygen consumption by the body. Aerobic means "with oxygen", and refers to the use of oxygen in the body's metabolic or energy-generating process. (Concise Oxford Endurance performance represents a complex interplay between several physiological factors, including maximal oxygen uptake (VO<sub>2</sub>max), aerobic endurance (AE) and the energy cost of running (Cr) (Di Prampero et al., 1986). Endurance training consists therefore in implementing exercise protocols that will enhance at least one of these determinants, in order to increase overall performance. According to the principle of reversibility, training induced physiological adaptations are transitory and may disappear when the training load is not sufficient. The reasons for such a scenario are numerous in an athlete's life: illness, injury, post-season break or training load adaptation to recover from state of overreaching. The consequences on endurance performance may vary according to the way training load is altered: training reduction, training cessation or bed rest confinement (Mujika & Padilla, 2000a). To avoid any confusion

with the terminology, the effect of training cessation on the physiological determinants of endurance performance and their underlying factors. Considering that detraining characteristics may differ according to the training background, we focus on studies dealing with well trained to highly trained athletes. cessation:- A bringing or coming to an end (Houghton Mifflin ,2009). Training cessation:-A temporary discontinuation or complete abandonment of systematic program of physical conditioning.

➤ **Resting heart rate:**

The number of times a walker's heart beats per minute while at complete rest. Resting heart rate will decrease as the walker's heart becomes larger and stronger with training. A low resting heart rate is an indicator of fitness. The units are bpm = beats per minute. Your resting heart rate should be taken first thing in the morning, before getting out of bed. Find a clock or watch with a second hand or second display and take your pulse for 60 seconds. (Dave McGovern, 2012)

❖ **Forced vital capacity:**

The amount of air which can be forcibly exhaled from the lungs after taking the deepest breath possible (Deborah, 2010). Training reduction: - A progressive or non-progressive reduction of the training load during a variable period of time, in an attempt to reduce the physiological and psychological stress of daily training. Detraining:-A partial or complete loss of training induced anatomical, physiological and performance adaptations, as a consequence of training reduction or cessation.

❖ **Manual Breath-holding:-**

A form of voluntary apnea that is usually but not necessarily performed with a closed glottis. Although breath-holding may be prolonged for several minutes, it is invariably terminated either voluntarily or when the person or child loses consciousness (Elsevier, 2009). Maximal oxygen uptake represents the maximal amount of oxygen that can be used at the cellular level for the entire body. It represents the upper limit of the cardio respiratory system and has long been considered as an important determinant of endurance performance (Saltine & A strand, 1967). According to the Fick principle, any alteration in  $VO_{2max}$  is the consequence of a modification of maximal Cardiac output ( $Q_{max}$ ) and/or maximal arteriovenous difference in oxygen ( $avDO_{2max}$ ). It is generally accepted that the largest part of the training induced increase in  $VO_{2max}$  results from an increase in blood volume, stroke volume and ultimately  $Q_{max}$ . Nevertheless, the increase in  $a-vDO_{2max}$ , which results from a more effective distribution of arterial blood from inactive to active muscles together with a greater oxygen extraction and utilization capacity by these muscles, plays also an important role in cardio respiratory adaptations to endurance training..

❖ **HYPOTHESIS**

It was hypothesized that the aerobic exercise might cause significant changes in the training cessation in physiological parameters

❖ **Methodology:**

To achieve the purpose of the study youth men in vijayapur who trains aerobics thrice a week aged between 14-16 were selected for the study .The selected subjects underwent six weeks of aerobic conditioning with high fat intake (pre-test) and four weeks of training cessation with high fat intake(post-test). The selected Resting Heart Rate and Manual Breath Hold Timing were measured by using stopwatch .Forced Vital Capacity was measured by micro plus speedometer.

## • RESULTS AND DISCUSSIONS

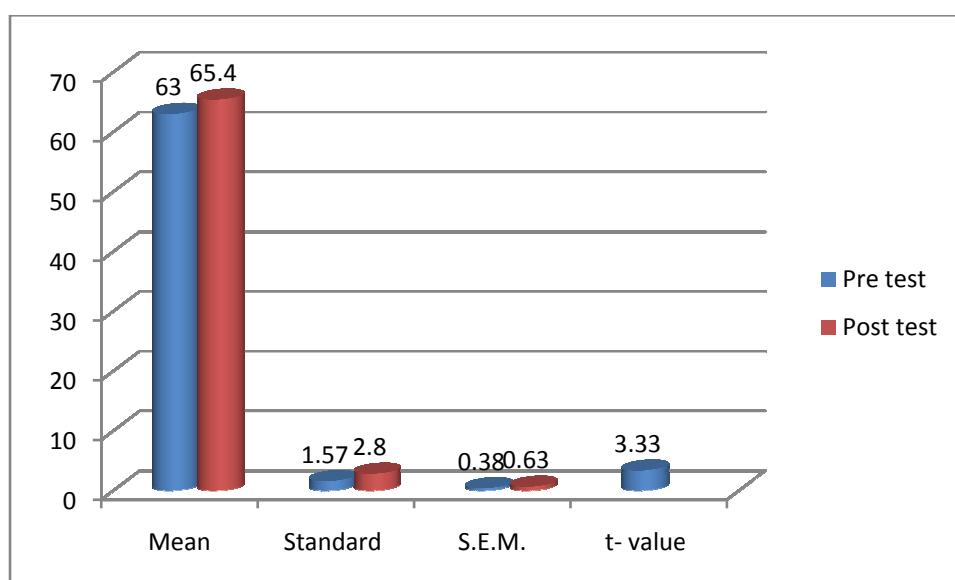
The purpose of this study was to find out the effects of aerobic exercise might cause significant changes in selected battery test for elementary school boys in Chennai. The calculated data was subjected to the “t” ratio for the analysis of significance.

**Table-I**

The table I shows the mean difference, standard deviation, standard error of mean and t-value of the effect of aerobics exercise on training cessation of Resting Heart rate of the subjects

Test	Mean	Standard	S.E.M.	t- value
Pre test	63	1.57	0.38	3.33
Post test	65.4	2.80	0.63	

Table-I Shows the mean value of initial and final test value of aerobics training and training cessation for 6 weeks and 4 weeks has 63 and 65.4 respectively. The standard deviation of 1.57 and 2.80 respectively. The standard error obtained 0.35 and 0.63 respectively. The t – value calculated was 3.33 which are higher than the required value of 2.72 at 0.05 level of significance. Hence the hypothesis was accepted.



### Conclusion:-

Most of the physiological determinants of endurance performance decline rapidly once the training process is interrupted, leading to an impaired performance capacity. Manual breath holding duration of training cessation due to effect of training cessation of aerobics exercise in high fat intake young men. When the training process is interrupt coaches should estimate the physiological consequences of implementing no alternativetraining.Choose the most appropriate alternative training cessation and its anticipatthe duration of training cessation is short. de-training (effect of training cessation).and Forced vital capacity decreases exponentially with the in high fat intake young men. Resting heart rate increases interrupted, most often because of an injury, athletes and according to the cause of training anticipated duration. Resume normal training progressively, even when the training.



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## **The Impact Yogic and Physical Exercises Training on Emotional Intelligence among Secondary School Students**

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### **. Abstract:**

The purpose of the study was intended to assess the effect of yogic and physical exercises on Emotional Intelligence behaviour among the school students, for this purpose hundred fifty students studying in various classes of residential high school of Vijayapura in Karnataka state in age group of 14-16 years were selected. They were divided into three equal groups, each group consist of fifty subjects, in which group-I underwent yoga practices, group-II underwent physical exercises and group –III acted as control group who were not allowed to participated and receive any special treatment apart from their regular curriculum classes', The training period for this study was six days a week for twelve weeks, the before and after the training period, the subjects were tested for speed ability. The analysis of covariance (ANCOVA) was applied to find out which group has better in performance, whenever "F" ratio for adjusted test was found to be significant for adjusted post-test means Scheffe's test was followed, as a post hoc to determine which of the paired means differ significantly . it was drawn conclusions that after the training of yoga and physical exercise both training has improved Emotional Intelligence behaviour significant increases found in Emotional Intelligence behaviour performance among the yoga group comparing their counterpart and Emotional Intelligence has been developed in the yoga group comparing to Physical Exercises group'

**Key words:** Physical Exercises Training on Emotional Intelligence among Secondary School Students

### **Introduction:**

Yoga is the art and science of maintaining physical and mental wellbeing that has its origin in India, is among the most ancient yet vibrant living traditions that is getting increasingly popular today. A potent stress buster, yoga is an instrument of self-evolvement and enlighten, through physical and mental well-being. Math-dimension it enhances the quality of our lives at so many levels. One aspect of yoga's benefits is to explore the bond between health and beauty.

The word Yoga derived from Sanskrit word "YUJ" meaning to yoke, join or unite. This implies joining or integrating all aspects of the individual body with mind with soul- to achieve a happy, balanced and useful life, and spiritually, uniting the individual with the supreme, Physical exercise in any organised activity that involves continuous participation and effects on whole body. Exercise occupies a leading role in keeping a person fit. It will be quite difficult to adjunct one's life in terms on stress, diet, and sleep and so on without proper exercise.

Regular practices of asana maintain the physical body in an optimum condition and promote health even in an unhealthy body. Through asana practice, the dormant energy

potential is released and experienced as increased confidence in all areas of life, yogasana have a deeper significance value in the development of the physical, mental, and spiritual personality, whereas pure exercise only have physical effect on muscles and bones.

Physical exercises are performed quickly and with a lot of heavy breathing, yogasana are performed slowly with relaxation and concentration. The benefits of various yoga techniques have been professed to improve body muscular strength, performance, stress reduction, attainment of inner peace and self realization. Schools are dynamic setting for promoting health and wellness through various correlated areas such as physical education and sports. There is a growing awareness that the health and psycho-social wellbeing of young children is of paramount importance and schools can provide a strategic means of children's health, self-esteem, life skills and behaviour.

Social Over the last two decades, sport psychology has contributed to the performance of elite athletes through the implementation and practice of psychological methods and techniques such as relaxation, goal-setting, mental rehearsal, visualization and self-talk. For the most part, this focus on psychological methods has been more widely considered by examining psychological skills derived from various personality traits and psychological dispositions of elite athletes. There has been a great deal of interest in understanding the relationship of personality variables to sports performance, most argued psychological and complex phenomena. James-Lange theory is one of the early descriptions which explain the model. "The bodily changes follow directly the perception of the existing fact, and that one's feeling of the same changes as their occurring is the emotion". According to this explanation; (1) people mentally perceive something; (2) this creates a mental affect (the emotion); and (3) this generates some physical expression. (Strongman, 2003, p.14). This early stage theory shows that there is a link between emotion and body responses. Emotional intelligence involves the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth (Mayer and Salovey, 1997). There is a growing interest in emotional The yoga and physical exercise are the means to notice all round and harmonious development among school students in the modern society, hence scholar made an attempt explore the **"The Impact of Yoga and Physical Exercise on Emotional Intelligence Variables of Secondary School Students"** "The present study was carried out in the background of the experimental method.

#### **Hypothesis:**

1. There would be significant effect of yoga and physical exercises training on improvement of emotional intelligence variables of secondary school students.
2. The training and Involvement in yogic exercises leads to better in Emotional Intelligence y comparing to physical exercises training group
3. There is no significant difference of yoga and physical exercise training in improving Emotional Intelligence behavior among students

#### **Objectives:**

To assess the effect of yoga and Physical exercises on Emotional Intelligence behaviour variables of secondary school students

#### **Methodology:**

The purpose of the study was to find out Effect of yogasana on Emotional Intelligence behaviour variable between yoga and Physical exercises group, to achieve the purpose of the

study 100 students studying in the residential high school of Vijayapaur in Karnataka has selected randomly as subject for the experiment, they were divided into two equal groups, each group consists of the 50 students. Group I and Group II underwent yogasan and Physical; exercises training for six days per week for twelve weeks. Group III Acted as control that did not undergo any special training programme apart from their regular physical education classes programme. The Emotional Intelligence behaviour variable selected as criterion variables. All the subjects of two groups were tested by administering Emotional Intelligence scale constructed by Prof Thimaguzam at prior to and immediately after the training programme. The analyses of covariance were used to analyze the significant difference, if any among the groups. The 0.05 level of confidence was fixed as the level of significance to test the 'F' ratio obtained by the analysis of covariance, which was considered as an appropriate

#### Analysis of the data:

The data collected prior and the after the experimental period on Social maturity behaviour variables of yoga and Physical exercise group were analyzed and presented in the following table.

**Table-1-Showing Computation of Covariance of Emotional Intelligence of control Group, Experimental group 1(Yogic Exercises) and Experimental group 2 (Physical Exercises) of Secondary school students.**

Source Variance	Df	Sum of the square	Mean square	Remarks
Between the group	2	4730.520	2365.260	Sig
Within the group	147	87111.220	59.260	

Significant at 0.05 level

**TABLE- I- A**

**Emotional Intelligence mean differences of control group (A), Experimental group 1(B)( Yogic Exercise) and experimental group 2(C)(Physical Exercise)**

GROUP	M1	M2	Diff
Group C & E1	70.540	84.280	-13.740
Group C & E2	70.540	76.840	-6.300
Group E1 & E2	84.280	76.840	7.440

#### Results and findings (Emotional Intelligence)

Table I-A- shows the 'F' ratio of 39.913 which was greater than table value of 0.05 level. Hence Scheff's Post Hoc test was employed to the data the score is 23.35 which was also found significant. Table-XI A (shows Scheff's Post Hoc test) shows the mean difference between the three groups. The difference between Group A (control group) and Group B (Yogic exercise) was -13.740 The difference between the Group A (control group) and Group C Experimental group (Physical Exercise) was -6.300. The difference between Group B Experimental groups I (Yogic Exercise) and Experimental group II (Physical exercise) was 7.440.

#### Discussion and findings of Emotional Intelligence

When we refer TABLE-I it reveals that computed F ratio was greater than the table value and data was employed to find-out the adjusted paired means that was also significant. From the statistical analysis of the data, it was found that Yogic exercise has improved Emotional intelligence than their counter part (Physical exercise and control

group). It may be due to the reason that Yogic exercise are going to develop harmonious between mind and body. So this idea was also supported by the great quotation “Sound Mind in a Sound body” Expressed by the great Philosopher Plato. In addition to that different techniques of yoga are going develops confidence, positive attitudes, characters and behaviour of the practitioner. Hence study reveals that various personality factors could be improved by the regular practice of Yogic exercise.

The formulated hypothesis there is significant difference in the Emotional intelligence between Experimental groups I(Yogic Exercise) and Experimental group II (Physical exercise was statistically proved and formulated that is practice of yoga leads to higher level of emotional intelligence is accepted

#### **Conclusion:**

The study reveals that various personality factors could be improved by the regular practice of Yogic exercise. Because yoga exercises have large potentiality to produce positive abilities, emotional competence and traits among the practitioners, school curriculum should taught regularly yoga to children to develop harmonious personality

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## A Study of Locus of Control and Anxiety among Boys and Girls Players

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### Abstract

The aim of the study was to investigate the locus of control and anxiety among boys and girls individual game players. **Hypotheses:** There was no significant difference between boys and girls individual game players with respect to locus of control. There was no significant difference between boys and girls individual game players with respect to anxiety. **Sample:** Among the total 80 samples selected from Aurangabad city, 40 boys and 40 girls samples of age group 18-25 years representing in various individual games. For the present study, purposive non-probability sampling technique was used. **Tools:** 1) Sports Anxiety Test (SAT) this scale was constructed and standardized by Dr. Quadri Syed Javeed. That test consists of 30 items. 2) Locus of Control Scale constructed by Dr. Anand Kumar and Dr. S. N. Srivastav. **Results:** First Girls individual game players had significantly high internal locus of control than the boys' individual game players. The Girls individual game players have more sports anxiety than the boys individual game players.

**Key Words:** Sports, Anxiety, Locus of Control

### Introduction:

Locus of control describes the extent to which we believe that we are in control of our lives. The concept was developed by Rotter (1966). Research in a number of contexts has found that individuals' lows in Locus of control are generally more vulnerable to anxiety and stress. There is a range of psychometric tests available to assess locus of control. Ntoumanis & Jones (1998) investigated the relationship between locus of control and competitive anxiety in 83 university- and county-level athletes (45 men, 38 women), using the CSAI-2 and a standard measure of locus of control. Interestingly, locus of control was not associated with somatic or cognitive anxiety levels; however, there was a relationship with how the athletes saw anxiety. Those with an internal locus saw anxiety as *facilitative*, that is, likely to improve their performance, whereas those with an external locus of control tended to see it as *debilitative*, that is, bad for their performance. Locus of control (LOC) is the degree to which people report a sense of personal control.

Locus of control has been dichotomized as internal or external (Rotter, 1966). An internal LOC believes an event occurs as a product of his/her own behavior. External LOC believes that an event is the product of chance, luck, or the influence of other people. In a related vein, personal control has been defined as an individual's belief that events and outcomes in one's life result from one's own actions (Ross & Mirowsky, 2002). In the workplace, employees who perceive higher levels of control report higher levels of satisfaction, motivation, commitment, and involvement (Spector, 1986). Van Raalte et al. (1991) found the more psychology students believed their actions allowed them to take some control over chance events; the more likely they were to exhibit superstitious behavior. An

earlier study found a positive relationship between an external locus of control and belief in self-oriented superstitions (Peterson, 1978).

In contrast, Groth-Marnat and Pegden (1998) found in a study of undergraduate students that an internal locus of control was related to stronger beliefs in superstitions. Tobacyk, Nagot and Miller (1988) found that greater personal efficacy control and greater interpersonal control corresponded with less belief in superstition. Also, low belief in self-efficacy in undergraduate students was positively linked with superstitious behaviors (Tobacyk&Shrader, 1991). Rudski (2004) found that pessimism was positively correlated with a belief in superstitions. Optimism has been associated with an internal locus of control and pessimism with an external locus of control (Dember, Martin, Hummer, Howe, & Melton, 1989).

#### **Objective of the study:**

- 1) To investigate the locus of control and anxiety among boys and girls individual game players.

#### **Hypotheses:**

- 1) There was no significant difference between boys and girls individual game players with respect to locus of control.
- 2) There was no significant difference between boys and girls individual game players with respect to anxiety.

#### **Methods:**

##### **Sample:**

For the present study 80 individual game players( 40 boys and 40 girls) in Aurangabad city between age group of 18-25 years were selected. In the present study, Purposive non-probability sampling technique was used.

##### **Tools**

##### **1) Sports Anxiety Test (SAT)**

This scale was constructed and standardized by Dr. Quadri Syed Javeed. That test consists of 30 items, each item 'YES' 'NO' type alternatives. Reliability of the test was found by test retest method, and it was found to be .89 for the anxiety measure. Validity the test was also validated by correlating the scores obtained on this test with the scores obtained by the subject on Dr. Ravikant and Dr. V N Mishra (2003) Sports Competition Anxiety Inventory. The Concurrent Validity coefficient obtained is 0.84 which is significant beyond .01 levels.

##### **Rotter's Locus of Control Scale:**

'Locus of Control Scale', constructed by Dr. Anand Kumar and Dr. S. N. Srivastav. 29 items are in the questionnaire and each of the items has two responses (a and b). The reliability of the inventory was determined by split-half method and test-retest methods used. Split-half indexed reliability coefficients are 0.88 and test retest reliability is .85. And Construct validity of the inventory is determined by finding coefficient of correlation between scores on Maslow crown desirability scale.

##### **Procedures of data collection**

Sports Anxiety Test (SAT) test was administered individuals as well as a small group. While collecting the data for the study and the later approaches were adopted.

##### **Variable**

##### **Independent variable-**

- 1) Gender
  - a) Boys
  - b) Girls

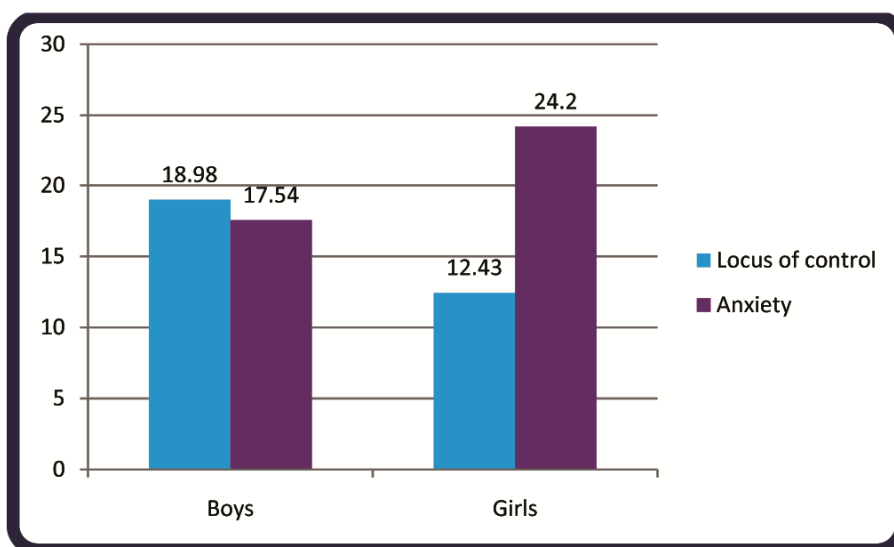
**Dependent Variable**

- 1) Locus of Control
- 2) Anxiety

**Statistical Analysis and Discussion**

*MeanStd. Deviation and t values of boys and girls individual game players on dimension locus of control and anxiety*

Dimension	Boys (N=40)		Girls (N=40)		‘t’	df	p
	Mean	SD	Mean	SD			
<b>Locus of control</b>	18.98	4.77	12.43	3.10	7.28	78	< .01
<b>Anxiety</b>	17.54	6.65	24.20	6.09	4.67	78	< .01



Result showed that the Mean of boys individual game players on dimension, locus of control was 18.98 and mean of boys individual game players on dimension, anxiety was 12.43, the difference between the two mean was highly significant  $t(78) = 7.28$ ,  $p < .01$ .

Research Null hypothesis found rejected, as there was no significant difference between boys and girls individual game players with respect to locus of control. Athletes with an external/chance locus of control experience higher levels of sport competition anxiety than those who have an internal locus of control.

Result showed that the Mean of boys individual game players on dimension anxiety was 17.54 and mean of girls individual game players on dimension anxiety was 24.20, the difference between the two mean was highly significant  $t(78) = 4.68$ ,  $p < .01$ .

Thus, research Null hypothesis found rejected as there was no significant difference between boys and girls individual game players with respect to anxiety. According to **Emily Mouyard** athletes ( $M 34.84$ ,  $SD 6.76$ ) experience higher levels of sport competition anxiety than men athletes ( $M 32.64$ ,  $SD 3.72$ ). Athletes with an external locus of control experience higher levels of sport competition anxiety than those who have an internal locus of control.



**Result:-**

The Girls individual game players had significantly high internal locus of control than the boys' individual game players. The Girls individual game players have more sports anxiety than the boys individual game players.

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## **A Comparative Study on Self Concept of Students from B.P.Ed and B.Ed Courses**

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### **Abstract:**

**“ Self concept is the individual as known to the individual ”**

**Morphy, (1974 )**

Self concept is the keystone of personality. One cannot imagine a person without self. Self is the essence of personality. Self concept in broad terms refers to a person's perception of himself or herself. In today's world of competition there is not even a single individual who is devoid of ambition in some or other form. Students of B.P.Ed. and B.Ed. are future secondary school subject teachers or physical teachers respectively. The goal settings behavior and performance are very important for both as they only bring cognitive, social and physical fitness among students. In the present study, one hundred students self concept scores were collected using Pratibha Deo and Mukta Rani Rastogi self concept scale and their self concept were calculated and tested for stated hypothesis.

**Keywords:** Self concept, Physical fitness, B.P.Ed. students, B.Ed. students.

### **Introduction:**

Every individual has to acquire and develop knowledge in this competitive world through various means of capacities and their abilities. These abilities have to be developed on the basis of self concept. A great deal of individual variations is found with regard to goal settings behavior. Like other psychological phenomena motivational factors are important to directly individual's behavior consciously and make him strive to perform certain types of activity in order to achieve to a definite goal. Everyone aims at reaching a definite goal or excellence in performance and in doing so she/he sets a desire for distinction which has an inner structure perception of himself or herself known as self concept. An individual efforts and goals his strivings aspiration is largely determined by hold he perceives himself and his surroundings.

His view or picture of himself is his self-concept. Encyclopedia of psychology defines “Self concept as the totality of attitudes, judgements and values of an individual related to his behaviors abilities and qualities”. The self awareness as growth process, which developed in begins person, it changes as he develops confidence, courage, concentration to his success and failure and he should develop self concept interest and involvement in which he wants to be reach the goal. As the above concepts implies self concept is a form of self motivation involving competition with one's own past performance.

### **Determinants of Self Concept:**

Self concept is usually of influenced by two types of factor, Viz., environmental and personal. Environmental determinants are parental ambitions, social experiences, peer pressure culture, social value competition and group cohesiveness. Personal determinants are

wishes, abilities, Interest values etc.

**Objectives:**

- To measure the self concept scores of B.P.Ed. and B.Ed. students.
- To study the self concept of B.P.Ed. and B.Ed. students with respect to gender.

**Testing of Self Concept:**

Pratibha Deo and Mukta Rani Rastagi questionnaire have been used to measure self concept. There questionnaire consists of statements it was used to measure self concept. It includes both positive and negative statements. It is a likert method and each statement consists of five reopens. The respondants were made to make check mark on any one of the response that fit to them best. The scalar was reevaluated by the researcher by administering it among one hundred college students. Hence the scale in its original form was made use for this study. The scale was scored with the help of scoring key. A scoring method was followed for positive and negative statements. The scorer obtained for both positive and negative statements were added and it was treated as individual score, the larger the score, higher the self concept score.

**SAMPLE FOR THE STUDY:**

B.P.Ed. ( N =100)		B.Ed. ( N = 100 )	
50 Male students	50 Female students	50 Male students	50 Female students

**RESEARCH METHODOLOGY:**

**Statistical Hypothesis:**

- There is no significant difference between the means of self concept scores between B.P.Ed. and B.Ed. students.
- There is no significant difference between the mean of self – concept scores between male and female students of B.P.Ed. students.
- There is no significant difference between the mean gain self concept scores between male and female students of B.Ed. Students.
- There is no significant difference between the mean gain self concept scores between male students of B.P.Ed. and Female S.D. of B.Ed. course.
- There is no significant difference between the mean gain self concept scores between female students of B.P.Ed. and B.Ed. course.
- There is no significant between the mean gain concept scores between female students of B.P.Ed. and females students of B.Ed. course.
- There is no significant difference between the mean gain self concept scores male students of B.P.Ed. and male S.D. of B.Ed course.

**DISCUSSION ON THE FINDINGS:**

**Table – 1**

**Mean, S.D and ‘T’ Values of Self Concept Scores of Students:**

N= 100	Mean	S.D.	Obtained ‘t’ value
B.P.Ed students	2.33	1.60	0.57
B.Ed. students	2.46	1.61	

The table – 1 shows that students from both B.P.Ed. and B.Ed. course gained almost equal amount of self concept scores mean, S.D. and ‘t’ value at B.P.Ed. and B.Ed. students.

The calculated 't' is 0.57, which is less than tabled 't' value at 0.05 level of significance, Hence, the null hypothesis (1) is accepted.

**Table – 2**

**Gender wise self concept scores mean, S.D. and 'T' Values of Students from B.P.Ed. and B.Ed. Courses:**

<b>N=50</b>	<b>Mean</b>	<b>S.D.</b>	<b>Obtained 't' value</b>
B.P.Ed. Female students	2.32	1.44	0.60
Male students	2.38	1.72	
B.Ed. Female students	2.72	1.61	1.625
Male students	2.20	1.59	

Table – 2 shows the gender wise mean difference of B.P.Ed and B.Ed courses. The two null hypotheses (2) and (3) stating there is no significant difference between mean self concept scores between Male and Female students from B.P.Ed. and B.Ed. courses respectively. To test there hypothesis 't' test of significance is applied. The results shown that, obtained 't' value statistically insignificant. Hence, null hypothesis (2) and (3) are accepted.

**Table – 3**

**Mean, S.D. and 'T' Values of Self Concept Scores Students from B.P.Ed. and B.Ed Course:**

<b>N=50</b>	<b>Mean</b>	<b>S.D.</b>	<b>Obtained 't' value</b>
B.P.Ed. Female students	2.32	1.44	1.315
B.Ed Female students	2.72.	1.61	

The above table – 3 shows that, the male students from B.P.Ed. scored less than B.Ed. female students. And this score is statistically significant at 0.05 level of significance and at 49 degrees of freedom. Hence, the null hypothesis (4) is rejected.

**Table – 4**

**Mean, S.D. and 'T' Value of Self Concept Scores Male Students from B.P.Ed. and B.Ed. Courses:**

<b>N = 50</b>	<b>Mean</b>	<b>S.D.</b>	<b>Obtained 't' value</b>
B.P.Ed. Male	2.38	1.72	0.45
B.Ed. Male students	2.2	1.59	

**Table – 5**

**Mean, S.D. and 'T' Values of Self Concept Between Male Students from B.P.ED. and B.ED. Courses:**

<b>N = 50</b>	<b>Mean</b>	<b>S.D.</b>	<b>Obtained 't' value</b>
B.P.Ed. Male	2.38	1.72	*1.981
B.Ed. Male students	2.2	1.61	

**Table – 6**  
**Mean, S.D. and ‘T’ Values of Self Concept Between Male Students from B.P.ED. and B.ED. Courses:**

N = 50	Mean	S.D.	Obtained ‘t’ value
B.P.Ed. Male	2.32	1.44	0.395
B.Ed. Male students	2.2	1.59	

Similarly, to test the null hypothesis (5) ‘t’ test for significance is applied. To result are shown in Table – 6 there is no significant difference between gained self concept hence the null hypothesis (5) is accepted.

**Conclusion:**

The overall observation shows that, all students from both the gender have shown to passes almost equal amount of self concept scores except female students from B.Ed course. As mentioned earlier teacher trainees from education and physical education are expected to be motivated to develop higher self concept which is personality qualities such as, positive self concept broader out look, self confidence and many other positive attitudes. As there are the essential qualities for a effective teacher, which is a big need for India’s prosperity, as teachers are the back bones of the country.

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## The Role of Yoga in Stress Management

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In an age of a highly dynamic and competitive world, man is exposed to all kinds of stressors that can affect him in all realms of life. Hans Selye first introduced the term stress into life science. The term *stress* is derived from the Latin word *Stringere*, which means “to be drawn tight.” Stress is a complex, dynamic process of interaction between a person and his or her life. Stress can affect one’s health, work performance, social life, and the relationship with family members. The stress response is a complex emotion that produces physiological changes to prepare us for fight-or-flight, to defend ourselves from the threat or flee from it. Eminent behavioural scientist Stephen Robbins defines stress as that which arises from an opportunity, demand, constraint, threat, or challenge, when the outcomes of the event are important and uncertain. Stress can also be defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress can lead to poor health and even injury. Hence we can say that stress is a silent killer, and prolonged exposure to stress may exert harmful effects on physical, psychological, and behavioral well-being of an individual. According to the National Institute for Occupational Safety and Health, 80% of workers experience job stress. Keeley and Harcourt in their study, “Occupational Stress: A Study of the New Zealand and Reserve Bank,” revealed that stress is caused by heavy work demands in the job itself, which the unskilled employee with little control over how the work is done, cannot adapt to or modify. Kulkarni, in an article “Burnout” published in *Indian Journal of Occupational and Environmental Medicine*, has said that the rapid change of the modern working life is associated with increasing demands of learning new skills, the need to adapt to new types of work, pressure of higher productivity and quality of work, time pressure, and hectic jobs. These factors are increasing stress among the workforce.

**Key Point:** Numerous studies have shown yoga to be effective in the management of stress, and yoga is increasingly accepted in the Western world. Patients of all ages, as well as doctors themselves, can manage stress through the practice of yoga.

### IMPACT OF STRESS

One of the studies quoted that stress-related disorders evolve gradually through four recognizable stages. First, psychological changes such as anxiety, irritability, and insomnia arise, due to over-stimulation of the sympathetic nervous system. In the second stage symptoms such as high blood pressure, elevated heart rate, and increased intestinal motility surface. In the third stage, a more profound physical or biochemical imbalance sets in, while in the final fourth stage, irreversible symptoms that often require surgical or long-term management appear. Increased sympathetic activation and the release of stress hormones, including adrenaline, lead to increases in heart rate, blood pressure, breathing, body temperature, and muscle tension. In contrast, the relaxation response has been proposed as an antidote to stress; relaxation decreases heart rate, breathing, body temperature, and muscle tension.

Similar to stress in the workplace, college students are also often impacted by stress.

Academic stress can result from many different imperative stressors, such as final grades, term papers, examinations, and excessive homework. Stress has exhibited a negative correlation with cognitive performance, thus negatively impacting academic performance.

## **YOGA**

Rapidly emerging in the Western world as a discipline for integrating the mind and body into union and harmony, when adopted as a way of life, yoga improves physical, mental, intellectual, and spiritual health. Yoga offers an effective method of managing and reducing stress, anxiety, and depression, and numerous studies demonstrate the efficacy of yoga on mood-related disorders. Currently, treatment for anxiety and depression involves mostly psychological and pharmacological interventions; however, mind-body interventions are becoming increasingly popular as a means to reduce stress. Yoga, a form of mind-body exercise, has become an increasingly widespread therapy used to maintain wellness, and alleviate a range of health problems and ailments. Although yoga has been practiced for over 5000 years, it has only recently gained popularity in the United States and Europe. In America, the yoga market emerged as a 5.7 billion dollar industry in 2008, an increase of 87% from 2004. The practice originated in India and has been implemented to alleviate both mental and physical ailments including bronchitis, chronic pain, and symptoms of menopause.

Yoga is an ancient discipline designed to bring balance and health to the physical, mental, emotional, and spiritual dimensions of the individual. Yoga is often depicted metaphorically as a tree and comprises eight aspects, or limbs: yama (universal ethics), niyama (individual ethics), asana (physical postures), pranayama (breath control), pratyahara (control of the senses), dharana (concentration), dyana (meditation), and samadhi (bliss). Long a popular practice in India, yoga has become increasingly more common in Western society. In a national, population-based telephone survey (n=2055), 3.8% of respondents reported using yoga in the previous year and cited wellness (64%) and specific health conditions (48%) as the motivation for doing yoga. Yoga has also found its special existence in Japan by its peculiarities like asana and pranayama.

## **EFFECT OF YOGA IN STRESS**

A growing body of research evidence supports the belief that certain yoga techniques may improve physical and mental health through down-regulation of the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system (SNS). The HPA axis and SNS are triggered as a response to a physical or psychological demand (stressor), leading to a cascade of physiologic, behavioral, and psychological effects, primarily as a result of the release of cortisol and catecholamines (epinephrine and norepinephrine). This response leads to the mobilization of energy needed to combat the stressor through the classic fight-or-flight response. Over time, the constant state of hypervigilance resulting from repeated firing of the HPA axis and SNS can lead to dysregulation of the system, and ultimately diseases such as obesity, diabetes, autoimmune disorders, depression, substance abuse, and cardiovascular disease. Studies also show that yoga decreases levels of salivary cortisol, blood glucose, as well as plasma renin levels, and 24-hour urine norepinephrine and epinephrine levels.

Yoga significantly decreases heart rate and systolic and diastolic blood pressure. Studies suggest that yoga reverses the negative impact of stress on the immune system by increasing levels of immunoglobulin A as well as natural killer cells. Yoga has been found to decrease markers of inflammation such as high sensitivity C-reactive protein as well as inflammatory cytokines such as interleukin-6 and lymphocyte-1B. These studies suggest that yoga has an immediate quieting effect on the SNS-HPA axis response to stress. While the

precise mechanism of action has not been determined, it has been hypothesized that some yoga exercises cause a shift toward parasympathetic nervous system dominance, possibly via direct vagal stimulation. Shapiro et al noted significant reductions in low-frequency heart rate variability (HRV)—a sign of sympathetic nervous system activation—in depressed patients following an 8-week yoga intervention. Regardless of the pathophysiologic pathway, yoga has been shown to have immediate psychological effects: decreasing anxiety and increasing feelings of emotional, social, and spiritual well-being. Several literature reviews have been conducted that examined the impact of yoga on specific health conditions, including cardiovascular disease, metabolic syndrome, diabetes, cancer, and anxiety.

Another study has shown improvement of mental health of both the young and seniors by reducing stress through yoga. Yoga can be wisely applied in welfare programs to improve the quality of life in all age groups. In this study, SAA levels decreased after yoga practice in both groups, and there was no difference in effect between groups. In seniors, SAA levels were higher; this may be due to stress or increased sympathetic activity, or increased epinephrine levels compared to the young. In two senior subjects in the initial two to three classes, SAA levels increased after yoga, possibly be due to pain after practicing asana, failure to relax during meditation, or anxiety about yoga. However, after a few classes, once they became accustomed to yoga, SAA levels came down. Decreased sympathetic activity signifies a decrease in stress level. In young individuals, the SAA level was low compared to seniors, and it reduced after yoga practice. This signifies that yoga helps to improve mental health and to overcome routine stress. Both state anxiety and trait anxiety scores decreased after yoga practice in both groups. There was no difference in response between the groups. Both the young and seniors showed a decrease in their anxiety scores. Participants felt better and relaxed after practicing yoga. Response was more for state anxiety compared to trait anxiety. Thus yoga has both an immediate as well as long-term effect on anxiety reduction and helps to bring even behavior changes or controlled response to any type of stress, if practiced regularly. It has been observed that a yoga-based relaxation technique decreases state anxiety more, in comparison to supine rest.

#### **BIOCHEMICAL MARKERS OF STRESS**

Advanced research has also been carried out on yoga, wherein the cortisol levels were assessed in multiple independent trials. However, the results were inconsistent, with the majority of the studies showing no effect of yoga practice on cortisol concentrations. Conversely, Vadiraja and colleagues reported significant decreases in 6.a.m and pooled diurnal salivary cortisol concentrations in 42 breast cancer patients after a 6-week yoga intervention compared to 33 breast cancer patients in the control group. Similarly West et al reported a significant decrease in salivary cortisol in 18 undergraduate students after a semester-long Hatha yoga course. Decreased serum cortisol concentrations were also found in 8 yoga instructors after 1 hour of yoga practice as compared to before practice.

#### **CONCLUSIONS**

Yoga is said to be a complete science, as it fulfills the WHO's definition of health by addressing the individual at all physical, psychological, and social levels. Stress affects individuals of all age groups, and people of all sectors and occupations, including doctors. Though many modalities of treatments are available for reducing stress, people are trying to find an alternative to be relieved from stress without medications. Yogic science, having persisted for 5000 years and known to be spiritual for many years, is now being proven through scientific studies to have significant benefits on health.



Yogic science includes yogasanas (postures), pranayama (breathing practices), dhyana (meditation), and relaxation techniques which benefit human beings at every level. Through research studies, yoga has proven effective in many physical and psychological ailments. Apart from the management of diseased condition, it also has been proven to improve the positive health and quality of life of the healthy. Most importantly, yoga is also a strong practice for the prevention against painful ailments.

\* \* \*

## Contemporary Movements in Sports Tourism, Management, Research, Sports and Yogic Sciences.

### Sub-Theme: Women's Fitness Through Yoga.

**Vikas Hari Ram:** B.ed., B.P.ed., M.P.ed., V.P.O. Haluwas, Distt. & Teh. -Bhiwani Haryana (127021)

#### Abstract:

Yoga stances, pranayama and reflection are compelling strategies to discharge push. Yoga helps here as well. Sun Salutations and Kapalbhathi pranayama assist get in shape with yoga. Yoga is additionally outstanding amongst other approaches to quiet a bothered personality. Yoga postures knead organs and reinforces muscles; breathing methods and reflection discharge stretch and enhance invulnerability. Yoga and pranayama help make that mindfulness and take the psyche back to the present minute, where it can remain glad and centered. Yoga and reflection keeps the mind upbeat and serene; and observe how your relations with everyone around you bloom. Normal yoga hone, extends and conditions the body muscles and furthermore makes them solid. Yoga and reflection have the ability to enhance your natural capacity with the goal that you unexpectedly acknowledge what should be done, when and how, to yield positive outcomes.

**Keywords:** accentuation, unwinding, prominence, Cognizant, sanitization, voyage, endeavor, queasiness, afflictions.

#### Introduction:

In spite of the fact that yoga has been honed for more than 5,000 years, it has just as of late picked up prevalence in the United States and Europe. In America, the yoga advertise developed as a 5.7 billion dollar industry in 2008, an expansion of 87% from 2004. The training started in India and has been actualized to ease both mental and physical afflictions.

#### Background:

Yoga is a general term that envelops breathing procedures, stances, reinforcing activity, and reflection. Many sorts of yoga exist. One of the more prevalent structures in the United States is hatha yoga, which joins stances, breathing methods and contemplation to profit physical and mental prosperity. Hatha yoga is additionally ordered into the Iyengar, Kundalini, Bikram, Ananda, vinyasa, and Anusara styles. It is evaluated that more than 15.2 million Americans utilized some type of yoga for wellbeing purposes in 2002. With yoga's expanding prominence and accentuation on an otherworldly association between the psyche and body.

#### Meaning of Yoga:-

Yoga alludes to the profound train that incorporates reflection, works out, physical stances, breathing systems. It is done to enhance physical wellbeing, psychological wellness, unwinding, and general prosperity of the person.

Yoga is a Sanskrit word, which signifies 'association' or 'union'. It can be utilized to mean any kind of association. For instance, it could be an association with other individuals, or with the perfect.

There is another significance to the word yoga, in any case. This is 'to train' or 'to control'. The act of yoga is, for sure, especially about restraining the body and psyche. The individuals who rehearse yoga consistently find that they are in more noteworthy control of their considerations and feelings. Yoga clears path for a more beneficial life and is viewed as a simple approach to remain fit, than different types of activities. You can without much of a stretch practice it at home, it needs no mentor and no machines also. Yoga incorporates:

- **Meditation:** Yoga includes contemplation too. Focusing and tallying your breath encourages you ruminate at the same time while murmuring "Om" under your breath.
- **Physical stances:** Various physical stances are there for all aspects of our inside and outside body parts that ought to be worked on as indicated by the requirements of a man.
- **Breathing procedures:** To manage and control breathing is one of the essential systems that ought to be rehearsed while doing yoga.
- **Body control:** The yoga stances requests that you have control in your body. Each stance expects you to remain in that position for a specific measure of time. Thusly you improve your body adjust and control also.
- **Mind control:** The breathing procedures and reflection causes you increase finish control over your brain and enhance your fixation and efficiency, alongside giving you mental peace.

### **Definition of Yoga :**

#### **Sanskrit definition of yoga**

Yoga signifies 'union' or 'association'. In Sanskrit, the word 'yoga' is utilized to imply any type of association. Yoga is both a condition of association and a group of strategies that enable us to interface with anything.

Cognizant association with something enables us to feel and experience that thing, individual, or experience. The experience of association is a condition of yoga, an euphoric and joyful, satisfying knowledge. Mindfulness is the mystery of yoga.

#### **Patanjali's definition of yoga**

The colossal sage Patanjali, in the arrangement of Raja Yoga, gave a standout amongst other meanings of yoga. He stated, 'Yoga is the blocking (nirodha) of mental alterations (chitta vritti) so the soothsayer (drashta) re-relates to the (higher) Self. Patanjali's framework has come to be the exemplification of Classical Yoga Philosophy and is one of the 6 or 7 noteworthy rationalities of India.

#### **Hatha yoga definition**

Hatha yoga incorporates stances (asana), breathing methods (pranayama), sanitization systems (pooed karmas) vitality direction strategies (mudra and bandha). The meaning of yoga in the Hatha Yoga writings is the union of the upward power (prana) and the descending power (apana) at the navel focus (manipura chakra). Hatha yoga shows us to ace the totality of our life constrain, which is additionally called prana. By figuring out how to feel and control the life drive, we get to the wellspring of our being.

#### **Kundalini yoga definition**

Kundalini yoga is the art of freeing the torpid potential vitality in the base of the spine (kundalini). The meaning of yoga in kundalini yoga is the union of the mental current (ida) and the pranic current (pingala) in the third eye (ajna chakra) or at the base chakra (muladhara chakra). This binds together duality in us by interfacing body and psyche and prompts the enlivening of otherworldly cognizance.

### History of Yoga

Yoga is over 10,000 years of age. The most punctual say of the pondering custom is found in the most established surviving writing Rig Veda, in Nasadiya Sukta. It goes back to the Indus-Saraswati human advancement. The Pashupati seal from the similar development demonstrates a figure sitting in a yogic stance, additionally certifying its predominance in those old circumstances. In any case, the soonest say of the practices that later turned out to be a piece of yoga are found in the most established Upanishad, Brihadaranyaka. The act of Pranayama finds a say in one of its song and Pratyahara in Chandogya Upanishad. The principal appearance of "yoga" with an indistinguishable significance from we know today, maybe occurs without precedent for Kato Upanishad, a mukhya or essential Upanishad, implanted in the last eight segments of the Katha school of Yajurveda. Yoga here is viewed as a procedure of internal excursion or rising of cognizance.

The well known exchange, Yoga Yajnavalkya, (found in Brihadaranyaka Upanishad), between Sage Yajnavalkya and the educated Brahmvidin Gargi notices asanas, various breathing activities for purging the body and reflection. Gargi has additionally talked about Yogasanas in Chandogya Upanishad.

Vratya, a gathering of monkish life said in the Atharvaveda, underlined on real stances, which may have developed into Yogasanas. Indeed, even Samhitas specify munis, kesins and vratyas, different antiquated diviners and sages who rehearsed thorough physical deportments to ruminate or do tapasya.

Yoga as an idea gradually rose and has a detailed say in Bhagavad Gita and in Shanti Parva of Mahabharata.

There are more than 20 Upanishads and Yoga Vasishtha, which originate before Mahabharata and Bhagavad Gita, where Yoga is expressed to be the union of psyche with the Supreme Consciousness.

Yoga is talked about in the old foundational Sutra of Hindu logic and is maybe most intricately specified in Patanjali Yogasutra. Patanjali characterizes yoga in his second sutra as: योगः चित्त-वृत्ति निरोधः (yoga □ citta-v □ tti-nirodha □)

- Yoga Sutras 1.2

Patanjali's composition likewise turned into the reason for Ashtanga Yoga. Many practices like five promises in Jainism and Yogachara of Buddhism have their root in Patanjali Yogasutras.

The Medieval Ages saw the advancement of Hatha Yoga.

### Benefits of yoga in ladies fitness:-

1. **Yoga for weight reduction.** Want of numerous ! Yoga helps here as well. Sun Salutations and Kapalbhata pranayama assist get in shape with yoga. In addition, with normal routine with regards to yoga, we have a tendency to wind up plainly more touchy to the sort of nourishment our body requests and the time we take. This can likewise help keep a beware of our weight.
2. **Yoga for stretch help.** A couple of minutes of yoga amid the day can be an awesome approach to dispose of stress that aggregates day by day - in both the body and brain. Yoga stances, pranayama and reflection are compelling strategies to discharge push. You can encounter the quieting impacts of yoga in the Sri Yoga Level 2 program.
3. **Yoga for inward peace.** We as a whole love to visit quiet, tranquil spots, rich in regular excellence. Little do we understand that peace can be discovered appropriate inside us and we can take a scaled down get-away to encounter this whenever of the day! Advantage

from a little occasion each day with yoga and reflection. Yoga is additionally outstanding amongst other approaches to quiet a bothered personality.

4. **Yoga to enhance resistance.** Our framework is a consistent mix of the body, brain and soul. An anomaly in the body influences the brain and comparatively disagreeableness or anxiety in the psyche can show as a sickness in the body. Yoga postures knead organs and reinforces muscles; breathing methods and reflection discharge stretch and enhance invulnerability.
5. **Yoga to live with more noteworthy mindfulness.** The brain is continually associated with movement – swinging from the past to the future – yet never remaining in the present. By essentially monitoring this propensity of the brain, we can really spare ourselves from getting focused or worked up and unwind the psyche. Yoga and pranayama help make that mindfulness and take the psyche back to the present minute, where it can remain glad and centered.
6. **Yoga for better connections.** Yoga can even assist enhance your association with your life partner, guardians, companions or friends and family! A mind that is casual, upbeat and satisfied is better ready to manage delicate relationship matters. Yoga and reflection keeps the mind upbeat and serene; and observe how your relations with everyone around you bloom !
7. **Yoga to expand vitality.** Do you feel totally depleted before the day's over? Carrying through errands, and multitasking consistently can be very debilitating. A couple of minutes of yoga regular gives the truly necessary fillip that lifts our vitality and keeps us new. A 10-minute online-guided reflection is all you have to energize your batteries, amidst a feverish day.
8. **Yoga for better adaptability and stance.** Yoga must turn out to be a piece of your day by day routine to get a body that is solid, supple and adaptable. Normal yoga hone, extends and conditions the body muscles and furthermore makes them solid. It likewise enhances your body pose when you stand, sit, rest or walk. This would, thus, help calm you of body torment because of off base stance.
9. **Yoga to enhance instinct.** Yoga and reflection have the ability to enhance your natural capacity with the goal that you unexpectedly acknowledge what should be done, when and how, to yield positive outcomes. It works! You just need to encounter it yourself.

Patanjali's Ashtanga Yoga: The Eightfold Path use in ladies wellness:-

#### **Yama and Niyama use in ladies wellness:-**

The initial two phases of Patanjali's eightfold way are known as Yama and Niyama. Yama implies control; Niyama, non-control. Truly, these two phases mean the don'ts and the do's on the otherworldly way. They are, one may state, the Ten Commandments of yoga.

Their fundamental reason for existing is to allow the drain of inward peace to be accumulated in the bucket of the brain by stopping gaps that have been caused by anxiety, wrong connections, wants, and different types of shrill living.

The guidelines of Yama (the Don'ts) are five:

Peacefulness or Ahimsa

Non-lying

Non-taking

Non-sexiness or Brahmacharya

Non-insatiability or Non-connection

It is fascinating to take note of that these temperances are recorded in negative terms.

The suggestion is that when we expel our dreams, we can't yet be big-hearted, honest, aware of others' property, and so forth., since it is our inclination to be great. We act generally not on the grounds that it is normal for us to do as such, but since we have grasped an unnatural condition of self absorbed dissonance.

The standards of Niyama (the Do's) are:

Neatness

Happiness

Severity

Self-study or Introspection

Commitment to the Supreme Lord

#### **Asana—pose use in ladies fitness:-**

The third stage on the eightfold way is known as Asana, which implies, basically, pose. A few authors have attempted to make the point that Patanjali alludes here to the requirement for rehearsing the yoga acts as a planning for contemplation. Be that as it may, Patanjali was talking, not of practices, but rather of the diverse phases of profound improvement. Here, at that point, act implies no specific arrangement of stances, however just the capacity to keep the body still as an essential for profound reflection. Any agreeable stance will do, as long as the spine is kept erect and the body loose. An indication of flawlessness in Asana is said to be the capacity to sit still, without moving a muscle, for three hours. Many individuals ruminate for quite a long time without accomplishing any striking outcomes, basically in light of the fact that they have never prepared their bodies to sit still. Until the point when the body can be aced, higher discernments, so inconspicuous that they bloom just in idealize calm, can never be accomplished.

#### **Pranayama—vitality control use in ladies wellness:-**

The fourth phase of Patanjali's way is Pranayama ... Prana means breath, however simply because of the nearby association that exists between the breath and the causative stream of vitality in the body. The word, prana, alludes fundamentally to the vitality itself. Pranayama, at that point, implies vitality control. This vitality control is frequently affected with the guide of breathing activities. Subsequently, breathing activities have additionally come to be known as pranayamas.

#### **Pratyahara—the interiorization of the mind fitness in ladies:-**

The fifth stage on Patanjali's trip is known as Pratyahara, the interiorization of the brain. Once the vitality has been diverted towards its source in the mind, one should then interiorize one's cognizance, with the goal that his contemplations, as well, won't meander in unlimited bypaths of anxiety and dream, yet will be centered one-distinctly around the more profound riddles of the indwelling soul. A string must be assembled to one point before it can be put through the aperture of a needle. Also with the brain: It is important to focus one's contemplations and in addition one's energies, on the off chance that he would plan to enter the tight passage that prompts divine arousing.

#### **Dharana—consideration wellness in ladies:-**

Patanjali's 6th stage is known as Dharana, consideration, or settled inward mindfulness. One may have known about internal profound substances—the inward light, for example, or the inward solid, or profound enchanted sentiments—previously achieving this stage, yet it is simply in the wake of achieving it that one can give himself totally to profound fixation on those substances.

**Dhyana—reflection or assimilation fitness in ladies:-**

The seventh stage is known as Dhyana, reflection, assimilation. By delayed focus on any phase of cognizance, one starts to expect to himself its qualities. By pondering sense delights, the Inner Self comes to recognize its satisfaction with the satisfaction of those joys; the individual dismisses the indwelling Self as the genuine wellspring of his joys. (In the event that anything material were extremely a reason for bliss, it would make satisfaction all men. The way that it doesn't demonstrates that it is our responses to those things, instead of the things themselves, that give us our happiness.) Again, by fixation on our own deficiencies, we just offer quality to those flaws. (It is a genuine misstep persistently to call oneself a heathen, the same number of customary religionists would have one do. One should focus on righteousness on the off chance that he would end up plainly idealistic.) By focusing on the inward light, at that point, or upon whatever other heavenly reality that one really sees when the brain is quiet, one step by step goes up against the characteristics of that internal reality. The brain loses its sense of self recognizable proof, and starts to converge in the considerable sea of cognizance of which it is a section.

**Samadhi—unity wellness in ladies:-**

The eighth step on Patanjali's eightfold voyage is known as Samadhi, unity. Samadhi comes after one figures out how to break up his sense of self cognizance in the quiet internal light. Once the hold of sense of self has truly been broken, and one finds that he is that light, there is nothing to keep him from extending his cognizance to interminability. The aficionado in profound Samadhi understands reality of Christ's words, "I and my Father are one." The little influx of light, losing its dream of independent presence from the sea of light, moves toward becoming itself the huge sea

**Advantages of yoga in ladies fitness:-**

Yoga has many focal points over different techniques for looking after wellbeing, for example, vaulting, games, high impact exercise, amusements, and different types of activity. It needn't bother with any expensive gear and materials, or play areas, swimming pool, rec centers, and so forth. Yoga can be polished consistently. It can likewise be drilled inside the house or in the open, separately or in gatherings. The main necessity is a thick cover spread on the floor and secured with a spotless sheet of material.

Yoga should just be honed on discharge stomach. You can do it whenever amid the day. It will profit you regardless of whether you are youthful or old, lean or intensely fabricated, very taught or unlettered, rich or poor, from higher or bring down white collar class, occupied, over occupied, or resigned or specialist in the manufacturing plant or in the field. Yoga has something extremely profitable, and helpful to offer to everybody. It is frequently portrayed as the best type of medical coverage for all from the age of 7 to at least 77. Two principle favorable circumstances of Yoga are aversion of clutters and diseases and support of wellbeing and wellness in day by day life. Other preferred standpoint incorporate adaptable muscles, supple joints, casual and tension-free personality and proficiently working key organs, for example, the heart, lungs, endocrine organs, liver, pancreas and great harmony between different capacities, for example, neuromuscular coordination, and so on.

**Diadvantages of Yoga in ladies fitness:-**

In the event that you just have 20 minutes daily to spend on your body and your first objective is to consume heaps of calories, yoga will baffle you. In spite of the fact that yoga is a sound extra to any weight-misfortune program and has even been appeared to advance continuous weight reduction, it isn't fundamentally a fat-consuming endeavor.

Another potential trap is finding a qualified instructor. Before selecting in a class, solicit what sort from preparing the teacher had. At present, there is no national confirmation program for yoga teachers. Willful accreditation is accessible from different gatherings, however a few associations grant instructing authentications to individuals who have finished just an end of the week course. The Yoga Alliance – a deliberate national coalition of yoga associations and individual yoga educators – is looking to set up willful national principles for yoga educators, yet not all yoga teachers concur with those measures or bolster the organization together's logic. To receive the elusive rewards of yoga, it is unassuming and to understand that yoga is intended to be drilled, not consummated. It's a noncompetitive action. As per Georg Feuerstein, Ph.D., founder– executive of the U.S. based Yoga Research and Education Center, at the core of yoga is "The supposition that you have not yet taken advantage of your maximum capacity as a person."

Notwithstanding for the most open– disapproved of amateur, yoga isn't anything but difficult to learn. In spite of the fact that you don't should be adaptable or fit as a fiddle to do yoga, the training is physically, candidly and rationally difficult.

#### **Pregnant ladies for fitness and wellness through yoga:-**

Ladies who are regulars would require minor adjustments to their yoga routine amid pregnancy months when the body is experiencing hormonal changes. The point of pregnancy yoga is to enable the mother to carry the unborn into the world with least bother and totally no wellbeing inconveniences. Positions and activities rehearsed over the three trime sters of pregnancy vary with each stage. It isn't just about yoga; it is tied in with doing it under master supervision and great condition.

A pregnant lady must mull over her wellbeing history before starting with the activities. For the individuals who are doing yoga out of the blue and have not been following an administration generally ought not hurry into the same without earlier medicinal assent. The initial three months are the most significant and odds of unsuccessful labor are high; accordingly most extreme alert is foremost amid this time.

#### **Vakrasna (Twisted posture):-**

- Sit erect with feet extended in front (parallel).
- Inhale and raise your arms at bear level, palms looking down.
- Exhaling, wind your body from abdomen towards your privilege moving head and hands at the same time to a similar side. Swing arms back however much as could reasonably be expected. Try not to twist your knees.
- Inhale and return to unique position keeping up your hands bear level and parallel to each other.
- Repeat on opposite side.

Advantage - Your spine, legs, hands, neck are practiced alongside delicate back rub to stomach organs.

#### **Utkatasana (Chair posture):-**

- Strengthens thigh and pelvic muscles
- Stand erect with feet 12 inches separated. Keep your feet parallel to each other.
- Inhale for 2 seconds and raise your foot sole areas and arms at bear level, palms looking down all the while.
- Exhale gradually; sit in squat stance, on your toes. If not happy with remaining on your toes, stand regularly keeping feet level on the ground.
- Keeping your hands similarly situated, breathing in, get up gradually and remain on your



toes.

- Exhale, pass on and heels down at the same time.

#### **Konasana (Angle posture):-**

- Flexibility of midriff and fat stays under control in the abdomen locale
- Stand erect with feet 24 inches separated. You can do this asana with the help of divider.
- Raise your correct hand up keeping elbow straight. Give a decent upward extend and keeping in mind that you breathe in, twist sideward towards your left. Breathe out and return and put your hand down.
- Repeat the same with opposite side.

#### **Hast Panangustasana (Extended hand to huge tow posture):-**

- Strengthens pelvic and thigh muscles
- Lie down on your back. Rectify your legs. Keep your body in one line.
- Your hands in T-position, palms looking down.
- Slide right leg towards your correct side. Try not to make a decent attempt. Hold toe with your correct hand if conceivable.
- Sliding your leg return to unique position.
- Repeat the same on left side.

#### **Bhadrasana (Butterfly posture):-**

- Strengthens inward thighs and pelvic locale
- Sit on the tangle with legs completely extended.
- Keeping the legs in contact with the tangle, shape 'Namaste' with your feet. - Sit erect, without inclining forward. Place your hands on knees or thighs. Hold the stance till the time you feel great.
- Straighten your legs and rehash.

#### **Some imperative updates/wellbeing measures in the motivation behind ladies fitness:-**

- Mothers with state of asthma can attempt the previously mentioned asanas however shouldn't hold or suspend breath amid the act of pranayams/asanas.
- On the premise of pregnancy trimesters there are sure activities that can't be conveyed all through all pregnancy months. Konasana (point posture) for example ought not be proceeded with post seven months of pregnancy. Once the mother feels awkward doing an asana, it is fitting to stop promptly without additionally stressing the muscles.
- Avoid forward twisting asanas (solid back twists, for example, the pontoon posture), upset stances and activities that may put weight on the belly. Asanas that require resting on the heaviness of your stomach ought to be entirely maintained a strategic distance from.
- Exercises including parity ought to be finished with most extreme care.
- Please abstain from hustling into weight reduction practice administration promptly after conveyance. Post-natal yoga (post a month and a half after birth) and activities ought to be polished just when the mother's body is completely prepared and loose.
- Simple extending practices energize course, help liquid maintenance, and soothe stretch
- If moms feel torment or queasiness doing any of the activities, at that point they should stop promptly and counsel specialist

#### **Breathing Techniques (Pranayama) and Meditation (Dhyaan) in the motivation behind ladies fitness:-**

Pranayama is the expansion and control of one's breath. Rehearsing legitimate strategies of breathing can encourage convey more oxygen to the blood and mind, in the end helping control prana or the crucial life vitality. Pranayama additionally runs as one with

different yoga postures. The union of these two yogic standards is considered as the most elevated type of refinement and self-restraint, covering both personality and body. Pranayama procedures additionally set us up for a more profound affair of reflection.

**CONCLUSION:-**

I conclude that yoga is very helpful in women fitness .i.e. **Yoga for weight reduction, Yoga for stretch help, Yoga for inward peace, Yoga to enhance resistance, Yoga to live with more noteworthy mindfulness, Yoga for better connections, Yoga to expand vitality, Yoga for better adaptability and stance, Yoga to enhance instinct.**

\* \* \*

## **Effects of Eccentric and Concentric Contraction Exercise Training Programme on selected Anthropometric Measurements and Body Composition of 18 to 20 Years Male Students**

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### **Abstract**

Many scientists have put sincere effort and proved that anthropometrical characteristics and body composition also play significant role for acquiring top performance. Although improvement in anthropometric variables is largely depends upon the heredity, some research reports reveal, it can be improved when one gets the exposure to proper exercise. The present investigator thinks that systematic training of exercises with eccentric and concentric contraction may bring some significant change in one's anthropometric attributes. Therefore, the present investigation "A Study of Effects of Eccentric and Concentric Contraction Exercise Training Programme on selected Anthropometric Measurements and Body Composition of 18 to 20 Years Male Students" in this piece of research. The study was conducted with a view, to measure the girth of chest, scapula, triceps (arms), abdominal, suprailiac, thigh muscles and skin fold of various sites (i.e., anthropometric measurement and body composition) of the 18 to 20 years male student. 60 male students, age ranged from 18 to 20 years, from Royal Junior College, Goutam Labdhi Apt., near Brahaman Sabha Gruh, Dombivli (East), Dist- Thane, The present experiment consists of two experimental groups and one control group. The groups are homogeneous and representing the same population. Thus, it is an ANCOVA or related group design. The statistical significance has been determined by computing Duncan's Multiple Range Post Hoc technique. The results on anthropometric variables indicate that eccentric exercises were to some extent useful in improving them, whereas it could not record significant treatment effect. The reason of appearance of such results may that eccentric exercises mostly related to passive types of stretching and they do not put more stress on muscle joints interaction. Therefore, the eccentric exercises could not show improvement in chest girth, arms circumference, calf girth, abdominal circumference and forearms girth. However, it is surprising to note that the circumference at thigh was found improved significantly at the 0.05 level. The reason of such improvement is not known. In fact, this result might have been appeared may be due to the fact that as an exercise, the eccentric exercises play the role. In the case of the results on Body composition, similar results have been observed. The eccentric exercise could not reduce almost all the fat-folds, whereas the concentric exercises showed overall reduction of excessive body fat from various sites of the body. In this case, the eccentric exercises might have played the complementary role and, therefore, nutritive elements have got proper circulation among all the body cells. The increased level of energy expenditure through the concentric exercises might have reduced the overall body composition. Therefore, the subjects' body showed a mesomorphic structure. From the results and discussion, the formulated hypothesis "Perhaps there will be a change in body fat and body shape as a result of eccentric contraction and concentric contraction training programme to 18 to 20 years male students" was retained which was found logical and justified. The researcher concludes the study as the Eccentric exercises were not found suitable to improve

anthropometric and composition variables. The Concentric exercises were helpful to improve almost all the anthropometric and body composition variables.

**Key words:** Eccentric Contraction Exercise, Concentric Contraction Exercise, Anthropometric Measurements, Body Composition and Male Students.

### **Introduction**

Top performance in sports not only depends upon the accuracy of skills, but also psycho-physiological condition of an athlete. Many scientists have put sincere effort and proved that anthropometrical characteristics and body composition also play significant role for acquiring top performance. Although improvement in anthropometric variables is largely depends upon the heredity, some research reports reveal, it can be improved when one gets the exposure to proper exercise. The present investigator thinks that systematic training of exercises with eccentric and concentric contraction may bring some significant change in one's anthropometric attributes. Therefore, the present investigation "A Study of Effects of Eccentric and Concentric Contraction Exercise Training Programme on selected Anthropometric Measurements and Body Composition of 18 to 20 Years Male Students" has been undertaken.

#### **The objectives of this study were:**

- To measure the girth of chest, scapula, triceps (arms), abdominal, suprailiac, thigh muscles and skin fold of various sites (i.e., anthropometric measurement and body composition) of the 18 to 20 years male student.
- To render regular training programme of eccentric contraction, concentric contraction exercises to the subjects of selected experimental groups.
- To compare the measurement of body fat and body shape between experimental and controlled group.
- To establish the utility of Exercises with Eccentric Contraction and Concentric Contraction as one of the physical education activities for college level.

The investigator hypothesized that, perhaps there will be a change in body fat and body shape as a result of eccentric contraction and concentric contraction training programme to 18 to 20 years male students.

### **Method**

#### **Subjects**

Prior to sampling, 60 male students, age ranged from 18 to 20 years, from Royal Junior College, Goutam Labdhi Apt., near Brahman Sabha Gruh, Dombivli (East), Dist-Thane, have been listed out on the basis of their date of birth. They were the XIth and XIIth standard students of the college. Out of 60 boys a total 45 students were selected randomly on the basis of Table random sampling and they could participate as subjects.

#### **Procedures**

The present experiment consists of two experimental groups and one control group. The groups are homogeneous and representing the same population. Thus, it is an ANCOVA or related group design.

The dependent variables selected for the pre-test and post-test was:

- Anthropometric variable considers measurement of girth or circumference.
- Body composition variable considers skin fold measures.

The eccentric and concentric exercises were performed with standard procedures.

#### **Data Analysis**

The data have been recorded by using standard procedures. After descriptive analysis the data were processed for ANCOVA (Analysis of Covariance). The statistical significance has been determined by computing Duncan's Multiple Range Post Hoc technique.

#### **Results**

The results have been summarized as follows:

The difference in the performance gain in **Chest Girth** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =4.37,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has no favourable influence in improving 'chest girth' as compared to the concentric exercises of selected subjects as measured by Gaulick measuring tape. Therefore, it can be interpreted that the concentric exercises were better in improving the anthropometric variables with special reference to chest girth.

- The difference in the performance gain in **Arms Girth** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =2.08,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has favourable influence in improving 'arms girth' as compared to the concentric exercises of selected subjects as measured by Gaulick measuring tape. Therefore, it can be interpreted that the concentric exercises were better in improving the anthropometric variables with special reference to Arms girth.
- The difference in the performance gain in **Calf Girth** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =3.87,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has favourable influence in improving 'calf girth' as compared to the concentric exercises of selected subjects as measured by Gaulick measuring tape. Therefore, it can be interpreted that the concentric exercises were better in improving the anthropometric variables with special reference to Calf girth.
- The difference in the performance gain in **Abdomen Circumference** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =0.83,  $p<0.05$ ). Thus, the result indicated that although the training in eccentric exercises has favourable influence in improving 'abdomen circumference', the training in concentric exercises had superior improvement over the eccentric exercises in abdominal girth. Therefore, it can be interpreted that the concentric exercises were comparatively better in improving the anthropometric variables with special reference to abdominal girth.
- The difference in the performance gain in **Forearm Circumference** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =2.21,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has no favourable influence in improving 'forearm circumference', whereas the training in concentric exercises could significantly show favourable improvement in forearm circumference.
- The difference in the performance gain in **Thigh Circumference** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =2.79,  $p<0.05$ ). Thus, the result indicated that although the training in eccentric exercises has favourable influence in improving 'thigh circumference', the training in concentric exercises also contributed to improve thigh circumference as measured by Gaulick measuring tape. In

fact, the superiority in improvement of 'concentric exercises' was statistically significant over the 'eccentric exercises'.

- The difference in the measurement gain in **Skin-fold at Scapula** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =0.75,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has unfavourable influence in improving 'skin-fold at scapula' as compared to the concentric exercises of selected subjects as measured by Skin-fold Caliper. Therefore, it can be interpreted that the effect of 'concentric exercises' was significantly superior to the efficiency of 'eccentric exercises' on skin-fold at scapula, i.e., 'concentric exercises' could help to reduce the fat% at the scapular region.
- The difference in the measurement gain in **Skin-fold at Chest** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =1.17,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has favourable influence in improving 'skin-fold at chest'. Similar result was observed in case of 'concentric exercises'. Eventhough eccentric exercises has favourably significant influence, the 'concentric exercises' training had significant superiority over the 'eccentric exercises' in reducing fat-fold at chest. Therefore it can be interpreted that 'concentric exercises' are useful to reduce fat-folds at the chest.
- The difference in the measurement gain in **Skin-fold at Triceps** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =1.98,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has unfavourable influence in reducing 'skin-fold at triceps'. However, the result indicate that 'concentric exercises' could help to reduce the fat-fold at triceps. It has also been observed that 'concentric exercises' had shown significant superiority over the effect of 'eccentric exercises' in reducing fat-fold at triceps area. Thus, 'concentric exercises' are effective.
- The difference in the measurement gain in **Skin-fold at Abdomen** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =0.99,  $p<0.05$ ). Thus, the result indicated that the training in concentric exercises has favourable influence in reducing 'skin-fold at abdomen' as compared to the eccentric exercises of selected subjects as measured by Skin-fold Caliper. Therefore, it can be interpreted that concentric exercises were found useful than the eccentric exercises.
- The difference in the measurement gain in **Skin-fold at Supra-iliac** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =1.73,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has unfavourable influence in reducing 'skin-fold at supra-iliac' as compared to the concentric exercises. This in turn suggests that 'concentric exercises' are useful in reducing 'skin-fold at supra-iliac' than the intervention of 'eccentric exercises'.
- The difference in the measurement gain in **Skin-fold at thigh** of experimental group-I (Eccentric Exercise) was evident with the experimental group-II (LSR =1.73,  $p<0.05$ ). Thus, the result indicated that the training in eccentric exercises has unfavourable influence in reducing 'skin-fold at thigh' as compared to the concentric exercises. This result helps to interpret that 'concentric exercises' had better influence in reducing the fat-fold at thigh.

From the above results and discussion, the formulated hypothesis "Perhaps there will be a change in body fat and body shape as a result of eccentric contraction and concentric contraction training programme to 18 to 20 years male students" was retained which was

found logical and justified.

The researcher, within specified limitations, concludes the study as follows:

- The Eccentric exercises were not found suitable to improve anthropometric and composition variables.
- The Concentric exercises were helpful to improve almost all the anthropometric and body composition variables.

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## Benefits of Weight Training on Health.

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### Abstract.

Weight training exercises are a type of strength training exercises in which you use the force of gravity to build muscle strength, often through the use of fitness equipment such as dumbbells, barbell bars or gym equipment. Because weight training exercises require you to move mass (and oftentimes heavy mass) around there are several safety precautions you should take in order to avoid getting injuries.

Generally it is often recommended to warm up before engaging in taxing physical activity. This usually takes the form of light physical exercise before moving on to more serious exercises. Furthermore, personal trainers usually recommend that their customers engage in stretching exercises either before or after exercising in weight training. Engaging in stretching exercises has the benefit of loosening up the muscles as well as adding flexibility and are recommended in an effort to reduce the risk of injuries.

The benefits of weight training overall are comparable to most other types of strength training increased muscle, tendon and ligament strength, bone density, flexibility, tone, metabolic rate, and postural support. There are benefits and limitations to weight training as compared to other types of strength training. Jumping and rotation with a barbell on shoulders, shown on the right animation, is one of the illustrations.

Strength training is an inclusive term that describes all exercises devoted toward increasing physical strength. Weight training is a type of strength training that uses weights rather than elastic training or muscular resistance to increase strength.

The purpose of the study is to highlight the benefits of Weight training on Physical, Physiological and health.

**Key Words:** Physiological benefits of weight training on health. Physical fitness benefits of Weight training on health.

### Introduction

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### **Benefits of weight training**

#### **Physical benefits**

##### **Flexibility:**

The reality is that weight training with proper form increases flexibility because it repeatedly moves muscles, joints and ligaments through their full ranges of motion.

Infact some exercise provide deep stretches that are hard to beat such as the dumbbell pullover dumbbell row and overhead triceps press. So improved flexibility is yet another reason to use a full range of motion in weightlifting (in addition to preventing injuries and improving strength gains and muscle growth) stretching and strength training performed equally well at improving hamstring, flexibility and both were superior to exercise. There were no differences between the groups when it came to shoulder extension flexibility. Stretching actually increases muscle growth. The biggest advantage of increased flexibility for weightlifting was what I touched on earlier, increased muscular gains. When you train your body's flexibility.

##### **Muscular endurance:**

By becoming stronger and increasing muscular endurance, an athlete, is able to perform more efficiently and is better able to avoid injury. Furthermore, there are a number of other physiological adaptations to weight training. The strength of tendons and ligaments are increased. Bone density increases making the bone stronger and more resistant to fractures and maximum heart rate is improved, as is increasing metabolism.

##### **Cardio-respiratory Endurance:**

Cardio respiratory also referred to as cardiovascular fitness, cardio respiratory fitness, an aerobic fitness an essential component of both physical fitness and all round good health. Specifically cardio respiratory endurance refers to ability of heart, lungs and circulatory system to deliver oxygen to working muscles for sustained periods of time. A cardio-respiratory endurance program should include activities that elevate the heart rate and involve the body's large muscle group. Regular physical activity helps control obesity, blood pressure and cholesterol with net result of cutting your heart disease risk almost in half, according to the for disease control and prevention etc.

##### **Muscle Strength:**

The muscle strength objective is pursued when you want your muscles to be effective when a high number of repetitions will be involved, or in other words when you want your muscles to be strong for a continued period of time. You'll want to use approximately 4 sets from which 10-12 reps are performed. The muscle strength objective is often used for muscles located in your back and your abdominals.

The main consequence to using weight training exercises is the increase in muscle strength that you'll develop over time. you, ll also develop stronger bones as well as gain a better general posture. In short, maintaining good muscle strength will allow your body to move more freely from the moment you wake up in the morning to the moment you fall asleep at night

### **Physiological Benefits**

#### **Blood pressure:**

Regular physical activity makes your heart stronger. A stronger heart can pump more blood with less effort. If your heart can work less to pump, the force on your arteries decreases, lowering your blood pressure. Becoming more active can lower your systolic blood pressure-the top number in a blood pressure reading by an average of 4 to 9 millimeters of mercury (Mm Hg). That's as good as some blood pressure medications. If your blood pressure is at a desirable level-less than 120/80mm hg. Weight training can cause a temporary increase in blood pressure during exercise. This increase can be dramatic, depending on how much weight you lift.

But weight lifting can also have long term benefits to blood pressure that outweigh the risk of a temporary spike for most people. And it can improve other aspects of cardiovascular health that can help to reduce overall cardiovascular risk. Weight training reduces the risk of injury. Holding your breath during exertion can cause dangerous spikes in blood pressure.

#### **Resting pulse rate**

According to the American Heart Association a normal heart rate can range between 50 to 100 beats per minute however a resting heart rate under 80 beats per minute is considered optimal. Your heart rate has large variability and can change frequently throughout the day. When your body temperature changes, so does your heart rate. This is one of the thermoregulatory changes that occurs to prevent the body's core temperature of 98.6 degrees Fahrenheit from increasing or decreasing. Heart rate increases when heat is gained by the body such as in hot climates and during exercise in order to transfer more heat away from the body. When the body loses heat such as in cold weather or a cold shower, heart rate decreases to preserve core temperatures.

During training your heart rate goes up to facilitate the increased demand for oxygen and carbon dioxide removal to and from the muscles. Heart rate increases to the resting time above resting heart rate depending on the intensity and duration of exercise.

#### **Conclusion.**

Weight training exercises improve Physical, Physiological and health.

\* \* \*

## Current Scenario of Sports Tourism and Economics

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**Dr. Balwant Singh:** Global Human Research & Welfare Society, Thane

### Abstract:

This article presents a point of view that is directly associated with the economic impact of sports tourism. Tourism is a trillion dollar industry and sport is multi-billion dollar industry and has become a dominant and defining force in the lives of millions of persons globally; to the extent it is considered to be universally compelling. Detailed multicultural case studies are used to illustrate the interplay between sport tourism and economic systems; sociocultural dynamics; health and fitness; the environment; urban development and public policy.

**Keywords:** Sports Tourism, Economics, Sports Industry, Tourism.

### Introduction

Sport has become an increasingly important element in the tourism industry and the 'needs' of tourists are frequently identified by the international provision of sporting facilities and experiences. This is concerned with analysing the changing styles of international sports tourism and examines key areas where the interaction between sport and tourism has intensified in recent years. These areas involve the development of sports resorts and sports holidays; the growth of sports museums, the plethora of multi-sport festivals and world championships, such as the Olympic Games and World Cup; and sports facilities in national parks.

Sport tourism has received growing attention as a source of generating significant revenue and contributing major economic benefits to host cities, regions, and countries. However, current methods for assessing economic impact have had variable success in estimating tourist numbers and expenditure directly attributable to a sport tourism mega event.

Sports teams and events are business investments both for the individual entrepreneur or athletic department that organizes and promotes them and for the communities that subsidize and host them. Communities may invest public tax dollars into facilities or events for professional and college sporting entities for a variety of reasons, but economic benefits are likely to rank high among them. They anticipate that the sport events will attract visitors from outside the community

whose expenditures while they are there represent an infusion of new wealth into the community. While the entrepreneur or athletic department has a directly measurable bottom line that evaluates their private economic performance, a community needs to assess benefits in a broader public context. The conceptual thinking that underlies the investment of public funds in sporting events and facilities for economic purposes is described by the following sequence of actions. Residents of a community "give" funds to their city council in the form of taxes. The city council uses a proportion of these funds to subsidize the production of an event or the development of a facility. The facility or event attracts out-of-town visitors, who spend money in the local community both inside and outside the facility they visit. This "new money" from outside the community creates income and jobs in the community for residents. This completes the cycle--community residents are responsible for creating the funds, and

they receive a return on their investment in the form of new jobs and more household income.

### **Sports events and their impact on tourism**

The appeal of hosting a mega-event, or more specifically a mega-sporting event, has grown significantly over the last two decades. Not only have the advent of professionalism in sport, combined with higher per capita income worldwide and improvements in broadcast technology, made mega-events a truly global experience, but also countries and regions increasingly consider these events as possible lucrative opportunities encapsulating large potential tangible and intangible benefits for the host.

While the costs and benefits (tangible and intangible) remain a source of debate, the focus has shifted recently towards those aspects of mega-events that are quantifiable, such as tourist behavior. Some argues that cost-benefit analyses or economic impact assessments on a macro-level relies too heavily on the assumptions to justify the outcomes and urges greater emphasis on a 'bottom-up' approach. This usually involves contingent evaluation through questionnaires and surveys, directly assessing the behaviour of individuals. While also costly, this approach has other disadvantages, including the main pitfall of 'top-down' studies, measuring the counterfactual. In that sense, our study attempts to bridge this problem by turning to a methodology now standard in the trade literature, the gravity model.

Sports events increase the number of tourists in the year of the event could not be rejected. We find that, on average, sporting events increase predicted tourism by roughly 8% in the same year. There is however large disparities between the types of event; the Summer Olympics, FIFA World Cup and to a lesser extent the Cricket World Cup and Lions Tour all seem to have a significant positive impact on tourism, while the Winter Olympics and the Rugby World Cup do not. This may be due to tourism displacement, but is probably more the result of the smaller nature of these events and because the events analysed here were held in countries with an already strong tourism demand.

From a tourism perspective, hosting a sports-event is beneficial, even in the face of the growing scepticism of tourism crowding-out. Yet, it is not necessarily the more expensive events that yield the most benefits: the size and development level of the host country, the type and, importantly, timing (seasonality) of the mega-event, and the countries participating in the event all impact on the 'success' of these events, measured in terms of tourist arrivals.

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## Effect of Integrated Physical Training on Personal Values of Children's Home Girls

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PhD Scholar, Department of Physical Education, University of Mumbai, Vidyanagari.

### Abstract:

The purpose of the study was to determine the effect of Integrated Physical Training on Personal Values (Psychological Variable). In this experimental research study, the subjects were 51 girls of age 13 to 16 years of children's homes of Greater Mumbai. The design of the study was Non-equivalent Control Group Design. The dependent variable was Personal Values, the psychological test was administered for Pre-test and Post-test. The independent variable (treatment) was Integrated Physical Training **for the period of 8 weeks; 5 days a week and 60 minutes in morning session**. The comparison of data (pre test - post test) of control group and experimental group was analyzed with the help of one way analysis of covariance ANCOVA. The result added new information that the overall Personal Values and some dimensions of Personal Values have been significantly improved while some dimensions of Personal Values didn't show any significant improvement as result of the treatment of Integrated Physical Training among the adolescent girls of children's home.

**Keywords :** children's home, integrated and personal values.

### 1. Introduction

Today, in modern era, the mental health is a subject of study along with physical health. Mental Health is a term used to describe either a level of cognitive emotional well-being or an absence of a mental disorder. From perspective of the discipline of positive psychology or holism Mental Health may include an individual's ability to enjoy life and procure a balance between life activity and efforts to achieve psychological resilience. In the present era, which is the era of science and technology, the place of values in the personality of a person is being changed into the negative direction. From time to time many educationists and psychologists of the world have developed and standardized Value Tasks. The prominent among them are Allport and Vernon's value test, R. K. Ojha's Value Test, Shashi Gilanis's Test for Study of values etc. Verna and G. P. Sherry developed and standardized a personal value questionnaire for adults related to types of values. But, no satisfactory tool to measure the values of adolescents is available. Values are treated as the foundation of the human life. Looking at the present social science, it is felt that there is steep fall in the human beings' personal values. Personal values are impartial and related values which could be the base normal activities. These values are present in every human being, but their quantity could be more or less. Personal values also decide that how the individual shall face the problem situations so, Personal values are those desires which motivate us as a person to do some activity and to gain something. Observing the present Indian society it is felt that less importance is being given to values in the society.

### 2. Objectives of the Study

The objectives sought by the researcher is as follows :

- (i) To find out the effect of Integrated Physical Training on (overall) Personal Values of Children's Home girls.

### 3. Hypothesis of the Study

After analyzing the related reviews, it was hypothesized that -

H<sub>1</sub> : There will be significant improvement in (overall) Personal Values of Children's Home girls due to Integrated Physical Training.

### 4. Methodology

**4.1. Selection of Sample :** A sample of Fifty One (n = 51) girls age ranging from 13-16 years were randomly selected and identified as subjects. The Experimental group was comprised of 26 girls of Children's Home, Dongri and the Control group was comprised of 25 girls of Maharashtra State Women's Council's (MSWC) Asha Sadan (Balgruha - Adhargruh), Jail Road, Umerkhadi, Dongri. Both the organizations are in the same vicinity of Mumbai and they also cater to the girls suffering from the similar socio-economic crisis and social problems.

**4.2. Research Design :** The design of the study was 'Non-equivalent Experimental Group Design'. The design of the experiment had been planned in three phase's viz., Phase – I: Pre-test, Phase – II: Training or Treatment, and Phase – III: Post-test. The selected subjects were divided into two groups; one Integrated Physical Training Group (Experimental group) and one Non-Integrated Physical Training Group (Control group) Integrated Physical Training Group had 26 subjects while, Non-Integrated Physical Training Group had 25 subjects. The Integrated Physical Training Group had been given treatment i.e., Integrated Physical Training for the period of 8 weeks; 5 days a week and 60 minutes in morning session. Non-Integrated Physical Training Group did not receive any training but, involved in their routine work. The Pre test and Post test were conducted administering standardized Questionnaire of Personal Values.

### 4.3. Selected Variables:

➤ *Dependent Variables :* Personal Values (Psychological Variable)

➤ *Independent Variables :* Integrated Physical Training

A) Yoga : (i) Yogic Exercise / Yogic Posture / Yogasana, (ii) Kriyas, (iii) Pranayama and (iv) Meditation

B) Physical Exercise : (i) Strength Exercise, (ii) Endurance Exercise and (iii) Flexibility Exercise

C) Team Games : (i) Relays and (ii) Minor Game

**4.4. Tools / Instruments :** The subjects in both the groups, the Integrated Physical Training Group (Experimental Group) and one Non-Integrated Physical Training Group (Control group) were assessed with the help of standardized Questionnaire of Personal Values before (Pre-test) and after (Post-test) the treatment. The criterion measures chosen to collect data to test the hypothesis is given below:

TABLE I Tools and test used for data collection

Sr. No.	Variables	Test	Unit
1.	Personal Value	Personal Value Questionnaire by Dr. Archana Dubey and Mr. Mahendra Patidar [National Psychological Corporation (NPC), Agra] The test has 30 statements and 90 alternative choices with 10 dimensions of Personal Values	Scores

**4.5. Statistical Analysis :** Since, in this experimental study comprised of two groups - Integrated Training Group (Experimental Group) and Non- Integrated Training Group (Control Group); the researcher decided to compare adjusted mean scores of all 10 dimensions of Personal Values and overall Personal Values in order to find out the effect of given treatment on Personal Values of Children's Home girls. One Way Analysis of Covariance was appropriately used for the data analysis with the help of SPSS (Statistical Package for Social Sciences).

## 5. Results and Discussions

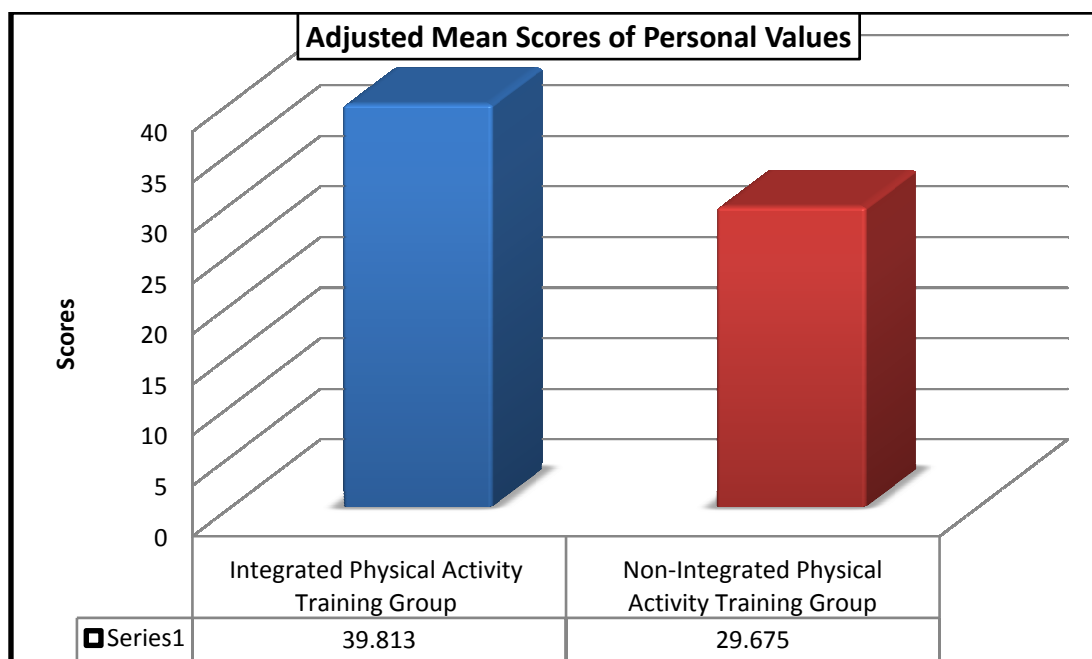
TABLE II: *Summary of One Way ANCOVA of ten dimensions of Personal Values*

Source of Variance	df	SSy.x	SSy. x	MSSy. x	MSSy. x	Fy.x (F value)	Remark	E.G .	C.G .
Variables		<i>Group</i>	<i>Error</i>	<i>Group</i>	<i>Error</i>				
Commitment	1/48	51.16	93.20	51.16	1.94	26.35	p<0.01	1.8	3.82
Challenge	1/48	0.06	16.35	0.06	0.34	0.17	p>0.05	4.02	4.09
Problem Solving	1/48	124.15	57.70	124.15	1.20	103.27	p<0.01	3.03	6.24
Group Work	1/48	27.87	38.28	27.87	0.80	34.95	p<0.01	2.16	3.69
Discipline	1/48	0.93	11.02	0.93	0.23	4.06	p<0.05	1.98	2.25
Hard Work	1/48	0.05	1.83	0.05	0.04	1.40	p>0.05	3.12	3.19
Honesty	1/48	0.23	5.98	0.23	0.13	1.85	p>0.05	3.76	3.92
Punctuality	1/48	21.63	41.70	21.63	0.87	24.89	p<0.01	3.04	4.35
Self Dependence	1/48	0.06	2.53	0.06	0.05	1.16	p>0.05	2.82	2.9
Cooperation	1/48	23.14	50.23	23.14	50.23	22.11	p<0.01	3.98	5.33

The table II gives the summary of One Way ANCOVA of all ten dimensions of Personal Values (Psychological Variable) viz, Commitment, Challenge, Problem Solving, Group Work, Discipline, Hard Work, Honesty, Punctuality, Self Dependence and Cooperation.

TABLE III: *Summary of One Way ANCOVA of (overall) Personal Values*

Source of variance	df	SSy.x	MSSy.x	Fy.x	Remark
Group	<b>1</b>	<b>1309.18</b>	<b>1309.18</b>	<b>184.21</b>	<b>p&lt;0.01</b>
Error	<b>48</b>	<b>341.14</b>	<b>7.11</b>		
Total	<b>51</b>				

**FIGURE 5.1** Treatment wise Comparison of Adjusted Mean Scores of Personal Values

From Table III it can be seen that the adjusted F-value is 184.21 which is significant at 0.01 level with  $df = 1/48$  when Pre (overall) Personal Value was taken as covariant. The adjusted mean score of (overall) Personal Values of Integrated Physical Training Group (Experimental Group) is 39.81 which is significantly higher than that of Non-Integrated Physical Training Group (Control Group) where adjusted mean score of (overall) Personal Values is 29.68. Thus, the Hypothesis sought by the researcher i.e.; 'H<sub>1</sub>: There will be significant improvement in (overall) Personal Values of Children's Home girls due to Integrated Physical Training' is accepted. Further It may be said that Integrated Physical Training was found to be effective in improving (overall) Personal Values of Children's Home Girls than that of Non-Integrated Physical Training Group where Pre-(overall) Personal Values was taken as covariate. The above result is also presented graphically in the fig. 5.1.

Physical Training Group (Control Group) where adjusted mean score of (overall) Personal Values is 29.68. Thus, the Hypothesis sought by the researcher i.e.; 'H<sub>1</sub>: There will be significant improvement in (overall) Personal Values of Children's Home girls due to Integrated Physical Training' is accepted. Further It may be said that Integrated Physical Training was found to be effective in improving (overall) Personal Values of Children's Home Girls than that of Non-Integrated Physical Training Group where Pre-(overall) Personal Values was taken as covariate. The above result is also presented graphically in the fig. 5.1.

## 6. Conclusion

Some dimensions of personal values such as Commitment, Problem Solving, Group Work, Discipline, Punctuality and Cooperation have been improved significantly as a result of given treatment. Whereas, the remaining dimensions of personal values such as Challenge, Hard Work, Honesty, Self Dependence didn't show any significant improvement as additional training might be required as well as the duration of the treatment may be required to be increased too for significant improvement. The (overall) Personal Values has been improved significantly as a result of treatment. i.e., Integrated Physical Training given to the Children's Home Girls for the duration of 8 weeks.

## 7. Recommendations

- 1) The treatment period should be increased to minimum 2 months / 10 - 12 weeks.
- 2) The study would inspire Physical Education Teachers, Coaches and Social Workers for the further study.
- 3) The study would inspire researchers to conduct similar study on the Children's Home Boys and inmates of Observation Home / Remand Home.



- 4) The study would inspire researchers to conduct similar studies on different institution and NGOs providing shelter and protection and care facility.
- 5) The study will encourage administrators, child-woman welfare officers and other government officials and NGOs to conduct or organize Physical Training for the welfare of children and woman.

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## Yoga and Sports

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### Abstract

Yoga trains the body, mind & spirit to become strong and flexible, release stress and create inner peace, while developing a deep connection with one's spirit, intuition and personal power. All of these are essential for living a healthy balanced life and for the athlete to play a healthy balanced strong game. A regular yoga practice lasts from 30 min. to 1 1/2 hours long. Many poses are held from 1 to 5 minutes so that muscles and deep connective tissue are simultaneously stretched and strengthened giving them a rubber band memory not achieved in traditional exercise. This is of extreme importance to the athlete as the connective tissue attaches muscle to bone and stabilizes all of the joints thus, preventing or minimizing injury when the athlete is spontaneous in action, opposed to having controlled safe form in a gym workout. Yoga is not an aerobic exercise, but it does burn calories. The intimidating pretzel poses, often associated with yoga are not essential to achieve maximum benefits.

### Yoga and Sports

Yoga trains the body, mind & spirit to become strong and flexible, release stress and create inner peace, while developing a deep connection with one's spirit, intuition and personal power. All of these are essential for living a healthy balanced life and for the athlete to play a healthy balanced strong game. A regular yoga practice lasts from 30 min. to 1 1/2 hours long. Many poses are held from 1 to 5 minutes so that muscles and deep connective tissue are simultaneously stretched and strengthened giving them a rubber band memory not achieved in traditional exercise. This is of extreme importance to the athlete as the connective tissue attaches muscle to bone and stabilizes all of the joints thus, preventing or minimizing injury when the athlete is spontaneous in action, opposed to having controlled safe form in a gym workout. Yoga is not an aerobic exercise, but it does burn calories. The intimidating pretzel poses, often associated with yoga are not essential to achieve maximum benefits.

The athlete can benefit by increasing mobility in the joints, thus increasing range of motion for overall enhanced performance. The athlete will be able to reach farther, fall harder while preventing and minimizing injuries because their muscles have a memory from the deep stretching obtained in practicing yoga on a regular basis. Many athletes are having more injuries that require surgery because of the increased focus on strength training with weight resistance. This method for increasing strength and muscle mass is highly effective and efficient, yet it dramatically decreases flexibility. Yoga or other types of prolonged stretching are practiced in combination with strength training and practical application, injury can be minimized during engagement in other competitive sports that call for the athlete to be more spontaneous with their bodies, calling for overextended reaches, lunges, falls, etc., all of which increase the odds of injury, opposed to the safety of controlled mechanical motion used in weight room workouts. Yoga also helps strengthen connective tissue, break down adhesions from old injuries and over-training, which have tightened as we age thus helping create mobility of the joints and an anti-aging posture.

As the practice of yoga focuses on deep breathing while stretching, this diaphragm breath not only helps with sinking into a deeper stretch but also circulates the body's lymph fluid which increases the bodies capacity to cleanse and detoxify by 15% By cleansing the

body on a regular basis with this kind of breathing along with a clean diet, the body's immune system is boosted, the blood is purified, and this results in increased health and vitality. The deep rhythmic breathing performed in yoga also creates and builds up one's life force energies or Prana, also called Qi or Chi in Chinese healing and martial arts. So, one actually creates more energy than is expended during a yoga session. The type of energy that is not from the caloric intake of our diet, but a cosmic energy.

### **Why Yoga for Sports?**

Actually it is the Spirit, the Mind and then the Body. The athlete needs all three integrated to have peak performance.

#### **Spirit**

Everything starts from the Spirit. The athlete must first be inspired, meaning "in spirit", having a desire to compete, play, or win. To have team spirit. If the athlete lacks spirit he won't play his best.

Yoga connects the athlete deeper with his Spirit through the meditative poses thus allowing him/her to tap into their pure potentiality, unlimited.

#### **Mind**

Inspiration is not enough. Once inspired the athlete must prepare with his Mind. He must have a game plan, a strategy, and education of his game and opponents to fulfil his inspiration or desire to play and win. To follow through with a strategy, yoga trains the athlete to focus, balance emotions, concentrate, & get in the zone.

#### **Body**

Inspiration and preparation are still not enough. Perspiration is what makes it all happen. In order to ultimately fulfil the desire of the Spiritual body and execute the strength and game plan of the mental body.

### **Benefits of Yoga Practice for Sports and Runners:**

- ❖ Yoga can help you develop a better breathing technique while it improves your balance, flexibility, core strength, and endurance.
- ❖ Sport yoga can help athletes to reduce the chance of sports-related injury and heal more quickly from injury.
- ❖ If you participate competitively in sport or simply join the occasional fun run on a whim you are aware of the impact breathing can have on performance. Deep, relaxed breathing is the foundation of reducing performance anxiety and improving concentration. Yoga will help you develop a habit of breathing correctly.
- ❖ Yoga practice integrates the mind-body connection and athletes can benefit from this combination of skills training.
- ❖ **Increase Core Strength:** Yoga poses are all about building core strength. The slow, focused movements require a strong mid-section and the isometric contractions of many exercises will add a new form of resistance training to your typical machine-based workouts.
- ❖ **Increase Flexibility and Range of Motion:** Yoga routines incorporate slow, steady flexibility exercise that is ideal for athletes. Frequent yoga training may increase flexibility, and range of motion while relieving muscle tension. Whether you are a runner or a golfer, improved range of motion can often help improve performance.
- ❖ **Improve Balance.** Yoga is a perfect way to incorporate balance exercises into your training routine. Balance exercises are often overlooked by athletes, but are one of the most effective ways to correct muscle imbalance or body mechanic problems. With most

sports and weight training routines you tend to perform repetitive motions that develop some muscle groups while others are ignored. Yoga can fix these imbalances.

### **The Eight-Limb Path**

- ✓ **Yamas – dealing with the world around us.** This is our moral code of conduct. These are the moral principles that govern the way you treat others and the world around you.
- ✓ **Niyamas – dealing with yourself.** These are five observances or rules of conduct, by which we should live our lives i.e. purity, modesty, contentment, discipline, self-study and acknowledgement of our own limits.
- ✓ **Asana – dealing with the body.** These are the physical postures or exercises in yoga.
- ✓ **Pranayama – dealing with breathing.** This is the conscious control of energy by practising controlled breathing techniques.
- ✓ **Pratyahara – dealing with the senses.** This denotes the withdrawal of the senses. It teaches us to close the doors to the senses so that the mind can still be aware of external stimuli but no longer responds to them.
- ✓ **Dharana – concentration.** This is the ability to focus our entire concentration on one object, one question, or one consideration and keep it there.
- ✓ **Dhyana – meditation.** This is an interaction with the object of concentration whereby we become observers and view the object intuitively, free from subjective notions. It is an acceptance.
- ✓ **Samadhi – The absolute:** the inner freedom. This is the complete feeling of being at one with the world, knowledge of the true self.

### **Physical Benefits**

- Increase suppleness through stretching muscles
- Reduces risk of injury and assists with injury rehabilitation
- Effective as a form of soft tissue and collagen fibre rehabilitation
- Helps to bring the body back into alignment and improves posture
- Contributes to improved cardiovascular fitness and stamina
- Lowers resting heart rate and increases VO2 max
- Psychological Benefits
- Relieves performance anxiety and stress, and frees athletes from mental distractions
- Develops determination and self-discipline
- Helps athletes to understand the importance of relaxing, resting, and recovering

### **Yoga for Athletic Performance:**

Yoga we believe there are seven basic forms of movement that are vital to health and performance and that we try to include each session:

- **Standing Poses** – Build leg-strength as well as flexibility in the hips and hamstrings.
- **Balancing Poses** – Increase body awareness, stabilization, and proprioception.
- **Backward Bends** – Improve posture, respiration, digestion, and elimination.
- **Forward Bends** – Promote health of posterior chain and help balance autonomic nervous system.
- **Inversions** – Improve immune function and enhance circulation in legs.
- **Arm Balances** – Build core and upper-body strength and improve balance/body-awareness.
- **Twists** – Improve posture, shoulder-mobility, respiration, digestion, elimination, and health of spine and nervous system.

Endurance athletes are constantly striving to find the appropriate balance within their

bodies so they may continue to progress in their training. Injuries and mental burnout can inhibit the athlete's ability to consistently train and progress, resulting in a loss of precious time towards improvement. Athletes ranging from the novice beginner triathlete, to the professional cyclist, to the ultra-marathoner are turning to yoga to offset these challenges by balancing strength, flexibility.

### **Physical Benefits**

Endurance athletes spend the majority of their time in the forward moving plane of movement. Runners and cyclists propel their bodies forward through recruitment of the hip flexors, quadriceps, hamstrings, glutes, and core. Swimmers propel their bodies forward through the repetitive movement of rotating the shoulders, utilizing the pectoralis (chest) muscles, trapezius and latissimusdorsi (upper/mid back) muscles, and the core. The repetitive nature of these sports put the body at risk for muscular imbalances, which could eventually result in injury. Yoga encourages an individual to utilize both the superficial and deep muscle groups, resulting in appropriate balance in strength and flexibility. Overall body awareness and balance can improve with a better sense of where the body is moving in space-an important skill to have for appropriate technique in any sport.

### **Mental Benefits**

An important component to both training and racing that all too often can be overlooked is the mental component of the sport. Endurance sports take an incredible amount of focus, persistence, patience, and adaptability. An athlete can be in the best shape of his or her life, but if on race day their head is not it, neither will their body be. The practice of yoga improves mental focus by utilizing both the breath and the body as an anchor for the mind. The practitioner becomes more aware of their own thoughts as they improve their ability to be fully present with their body and breath. Yoga teaches the individual to stay calm, focus, and breathe with whatever shows up on their mat, and athletes can certainly take these skills with them into their sport when the going gets tough.

Yoga style that encourages you to utilize strength to support your flexibility. The safest way to take the body into a more intense range of motion is through supported strength and appropriate yoga props. Athletes in particular should support any deep stretches with strength, as there may already be vulnerable muscular imbalances resulting from the repetitive nature of their sport.

The following poses are excellent at building strength and flexibility in common muscular imbalances in the endurance athlete:

- ❖ **Downward Facing Dog-** Stretches the hamstrings and low back, builds strength in the quadriceps, trapezius muscles, rhomboids (muscles between the shoulder blades), adductors, and transverse abdomen's
- ❖ **Upward Facing Dog-** Stretches the ankles, hip flexors, pectoralis muscles (chest), builds strength in the glutes, hamstrings, trapezius muscles, rhomboids, spinal extensors.
- ❖ **Crescent Lunge-** Stretches the hip flexors, pectoralis muscles, strengthens the quadriceps, adductors, gastrocnemius and soleus (calf muscles), quadriceps, trapezius muscles, and rhomboids.
- ❖ **Pigeon-** Stretches the hip abductors (outer hips/glutes), hip flexors
- ❖ **Happy Cow Face-** Stretches the hip abductors, triceps, pectoralis muscles, strengthens the hip adductors, trapezius muscles, and rhomboids.

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## Recent Trends in Sports management

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### Introduction

Today's world is changing in more complex and unforeseeable ways than ever before but sports and games continue to be important for the holistic development of the individual. These days sports of several kinds are played across nations and with the passage of time huge amounts of money, name, fame, and glamour and media attention have become an integral part of sport. Sports management in the current scenario, therefore, is much more than merely managing sports. It has a business aspect and a sports aspect. The business aspect of sport involves economics, accounting, marketing, etc. and the sports aspects involve, besides the sports, sports finance, sports ethics, sports law, sports marketing etc.

With the advancements in technology, nearly every aspect of sports management has experienced a noticeable change that include sports as well. The financial aspect involved in the popular sports activities and events is no longer restricted to the immediate requirements of sport only, but it has to be considered from a business angle. To have a clearer picture of the recent trends related to sports management, one has to study the changes in the environment that have had a profound effect on sport. This includes the current trends in management and the human resource besides the technology, business and media, and much more; that are forcing a change in the trends of sport management.

This paper aims to discuss the important issues facing sports management practitioners. It extends our understanding of sports management by examining different types of businesses involved in sport to offer practical implications for sport practitioners. However, the scope of study being very wide, this paper merely touches upon some of the salient aspects related to business and sport impinging on the sport management.

### Management and sports

We can, with certain amount of conviction, say that the management is an evolving concept. It continues to develop new approaches for challenging situations experienced and the ever changing environment that is influencing the individuals. The modern manager has to deal with change at almost every stage to avail of the opportunities and ward of the threats emerging from the environment. The changes in the environment due to technology have led to a significant change in the outlook of individuals, their relationships with others, their lifestyle etc. Since management involves working with and through the people to efficiently and effectively manage resources to have the desired and set outcomes; it renders the process of management even more complex.

The organisations, business as well as sport, in terms of their structures and their effectiveness, have experienced great changes to be in tune with the changing environment. The concept and view of management warrants out of the box approaches to excel in evolving situations. Hence, even in sports and sports related activities, there is a need to apply various approaches of management as per prevailing scenario, including a mix of various approaches through their integration, to meet the emerging requirements of business and sport.

### Human Resource Management and sports

All the business and sport activities are conducted through the people. Their management plays a vital role in the outcomes of the concerned organisations. Each

individual is unique, however, we try to focus on activities that can be applied across the board for effectiveness in the related areas. The trends in education, vocational training, security of jobs, lure of greener pastures, ever increasing demands of the jobs, relationships at work and family life, work-life balance, technology, globalisation are a few aspects that shape the outlook of individuals. Their recruitment to retirement concepts are no longer the same as what used to exist sometime back.

The scope of human contribution even in the sports field has grown tremendously. Advancement in technology has rendered some of the existing processes obsolete and has ushered in new approaches for recruitment, selection, training and development and maintenance of personnel, their motivation etc. The demands placed on the sports persons are phenomenal due to the pressures of performance, finances involved, spectators, media etc. Winning at all costs has shifted focus on to doping. Under these prevailing conditions, managing the human resource has become a major challenge that requires new approaches to overcome the setbacks due the varied situational demands.

### **The sports industry**

**Sports media** - The sports media landscape is evolving rapidly, especially in terms of who creates content and who has the right to distribute it. Digital and mobile channels remain a critical component of the media ecosystem. These changes in the media industry aren't limited to content distributors; they also extend to content owners.

**Data and analytics** - Data and analytics in sports typically concentrate on player development. Having the best players is critically important, but so is having key insights to create better fan experiences, drive more revenue, and create more value. Business functions, such as finance, marketing, and sales, are seeking ways to better understand the sources of data they have access to and to improve their strategy and operations as a result. Failing to apply what's gleaned from data often is typically the biggest barrier to driving value from analytics. The end goal is to improve interactions with consumers, enhance sponsorship opportunities, and support increased efficiency and effectiveness of such internal functions as finance and marketing.

**Game day viewing-** The improvement of the home viewing experience has challenged sports teams to think about how they can better draw their audience to the stadium. Technological in-stadium enhancements, and experiential personalisation; has varied, and long-term effectiveness is, in many ways, yet to be determined. Teams also continue to search for ways to optimize fan experience beyond the stadium walls. Capitalizing on the consumer habits of this subset of the population is important. "For years, teams have sought new ways to improve the in-stadium experience. Now, they're doing so through unique and innovative partnerships." While catering to regular attendees and season-ticket holders is obviously valuable, there's untapped potential in fan bases that have no access to the stadium at all. An opportunity exists in expanding the reach and generating revenue from these displaced fans.

**Augmented reality and virtual reality** - The sports industry is increasing investment in AR and VR technologies, acknowledging their potential to disrupt content consumption. Teams and leagues believe these could be solutions for enhancing the experience for casual fans and transporting displaced fans halfway around the world into courtside seats. Franchises are partnering with VR start-ups to install 360-degree cameras in stadiums and to offer games in virtual distribution. Teams also are incorporating VR technology into player training programs to recreate game situations and help with decision making, while reducing the risk of overtraining or injury.



Virtual reality gets more of the attention, but augmented reality often has more practical applications for fans. Apple is investing heavily in AR and is preparing to enable their operating systems to support the technology. The sports industry should anticipate and capitalize on this advancement by considering the potential benefits of integrating software into the real world. While VR may keep sports fans on the couch, AR has in-stadium applications. AR apps could customize venue signage for each user, tell fans where a friend is sitting, or overlay stats on players in a game.

Unlocking the ultimate value of AR and VR in sports will take trial and error for start-ups and franchises alike, but there's no denying the impact these technologies will have on the industry.

**Cyber risk in the sports industry** - The priority for sports leagues and teams to be secure has traditionally focused on protecting the safety and wellbeing of physical assets – the fans, athletes, and venues. However, the industry's increasing adoption of digital technology, analytics, and an online presence has exposed a new class of assets and vulnerabilities that extend well beyond the physical realm into cyberspace. The question no longer is whether you will be hacked, it's what your response will be when you face a cyber-attack. "With increased investments in digital technologies, sports teams must manage the cyber risks that can result from such innovations. The very tools used to gain a competitive advantage could expose organizations to new cyber threats." malicious actors can be successful in attacking sports organizations using some of the most common attack patterns reported across industries. In one example, a franchise fell victim to an email phishing scam that leaked sensitive player financial information. Accessing the club's player notes can lead to competitive advantage.

Sports organizations can benefit from shifting the organizational paradigm to being secure and mastering fundamental information security practices. The traditional discipline of security, isolated from a more comprehensive, risk-based approach, is not enough to prevent the constantly changing landscape of cyber incidents. Greater focus is needed on gaining more insight into industry-specific threats and responding more effectively to reduce their impact. The industry's innovative use of technology and data will create first-order cyber risks that must be managed. Through an ongoing program to become secure, vigilant and resilient, sports organizations can be more confident in their ability to protect value for a more holistic set of strategic and evolving assets.

**Diversifying the sports enterprise** - The value of professional sports franchises has increased significantly over the past decade, driven largely by new state-of-the-art stadiums, lucrative media rights fees, and an overall dearth of teams available for sale. While business diversification isn't a new concept, it is manifesting itself in the sports industry in unique ways.

Stadiums increasingly are becoming the cornerstone of large mixed-use entertainment districts featuring hotels, restaurants, office space, and retail. These developments give owners the opportunity to capture fan spending before and after a game, as well as tap new revenue streams outside the traditional sports business.

Given the similar business models and generally low cost of entry, owners, and players are beginning to buy into new sports, such as e-gaming, which have significant growth potential. With access to and operating rights at stadiums and arenas, owners are able to reach a new generation of fans that may have less exposure to traditional stick-and-ball sports.

Similar to investing in new leagues, owners also are getting more involved in the start-

up community, creating business incubators and becoming outside investors in companies working to introduce new technology into the sports and entertainment industries. By expanding their personal business portfolio through such incubators, owners have at their disposal innovative products that can enhance the fan experience. If successful, they then can then tap their network to make the product available to other teams and leagues.

**Social activism in sports** - Athletes have long been generous about leveraging their public personas to support causes that are important to them, their families, or their communities. Teams and leagues have gone a step further, commercializing and promoting broad causes such as childhood fitness, and natural disaster recovery efforts etc. Players increasingly are using TV air time, their uniforms, and post-game press conferences as a way to draw attention to the issues or injustices that feel most critical to them, while teams and leagues stand by with varying levels of support.

“Social media has given athletes a much bigger platform to support and advocate for causes they are invested in, but also comes with a greater responsibility to be role models for others.” There is a fundamental question about the role athletes play in political and social activism. The rise of these politically and socially-minded activities may be a factor that impacts fan perceptions and shifts in viewership of live sporting events.

**Protecting the brand from corruption** - In addition to protecting physical and cyber assets, it is crucial for organizations to protect their brand. In this area, we see a significant trend emerging. Business leaders are joining forces with government, law enforcement, academia, and civil society to restore trust in the integrity of sports and inspire real change and create a common platform to unite all of the stakeholders involved in anti-corruption efforts. They also help create opportunities for governments, business, international and professional organizations, and civil society to discuss problems; share ideas, experience, and useful policy tools; launch anti-corruption projects, and jointly make strategic decisions. In the long run, we expect to see this trend grow as stakeholders feel the urgency to establish leading practices and international standards in order to help restore trust and inspire real, lasting change.

### **Sports industry trends**

There are some trends that are going to impact the business of sports, both on and off the field in the coming years. But invariably new stories, trends, and themes will emerge that further disrupt the industry, derail the game plan for industry executives, or delight sports fans. Sports professionals predict that innovation and disruption will dominate, whether it is non-traditional media pursuing sports rights or teams optimizing fan experience beyond the stadium. Trends that are likely to affect the sports industry in the coming years include:

The number of non-traditional media companies aggressively pursuing sports rights is expected to grow exponentially. As consumers shift to new media types, ownership of or distribution rights to unique content will likely be a key differentiator between companies as they seek growth opportunities.

The sports industry’s increasing adoption of digital technology, analytics, and an online presence has exposed a new class of assets and vulnerabilities that extend well beyond the physical realm into cyberspace. Sports organizations can benefit from shifting the organizational paradigm to being secure and mastering fundamental information security practices.

Players increasingly are using TV air time, their uniforms, and postgame press conferences as a way to draw attention to the issues or injustices that feel most critical to

them, while teams and leagues stand by with varied levels of support. The rise of these politically and socially-minded activities may be a factor that impacts fan perceptions and shifts in viewership of live sporting events.

Other sports trends include Data and analytics, innovating game day, augmented and virtual reality, diversification of the sports enterprise, and protecting the brand from corruption.

### **Trends for Sports Development and Management**

Sport as a business means different things to different people depending on the context and country. Some people see sport as a means of recreation and fitness, while others see it as a venue for gambling and socializing. Athletes see sport as a means to achieve personal achievement and to achieve international fame. Governments around the world see sport as a way to capitalize on tourism and to educate people about healthy living alternatives. The different meanings of sport make sport a global social phenomenon as it combines economic, commercial, political, physical, psychological and ethical aspects. Sport has become a global phenomenon because of its capacity to attract people of different nationalities.

**Use of Technology** - The use across the globe of multiple new media/digital platforms (Convergence of telecommunications, computing and traditional media, such as social media, video and audio streaming, internet, television, online video gaming etc.) in sports sponsorship communications, enables brands to employ multiple media channels and publicity methods in order to sell products

**Sports Business Trends** - Every year the world stands witness to the dramatic plays of the sports industry. The sports industry is now estimated to be worth somewhere in the region of \$ 500-600 billion worldwide-with impressive growth projected for the foreseeable future. The commercialization of what were once cherished pastimes has become a big business, and an indelible cultural force with the strength to unify continents. Looking globally at this industry and its progression into the future, several game-changing trends emerge. If you're in this business, thinking of entering or investing, these can't be ignored.

**Women** - In a stereotypically male-dominated industry, the world of sports business is in for disruption. Women as both athletes and fans have elevated their stature, and the sports business community is paying attention. Women's World Cup Soccer became the most-watched soccer event in US television history (surpassing the NBA Finals). Sports Illustrated's coveted "Sportsman of the Year Award", was appropriately renamed "Sportsperson of the Year" upon receipt of the year's winner, Serena Williams. Yahoo's annual report of the most searched athletes of 2015 was dominated by women. This "on the field" influence, can have a major rippling effect off the field. As every sports property tries to allure both the current and next generation of fans, prioritizing women is paramount.

**Trained professionals** - With world's largest youth population and one of the fastest growing economies, India has witnessed galloping growth in its sports industry in the past few years. Global events, thriving new infrastructure and large fan following for diverse sports is making India a major sports destination. With major sporting properties flocking to India, career opportunities are extensive and varied in this rapidly- expanding field. However, there is a huge shortage of trained professionals even though there are numerous career openings.

### **Conclusion**

Sports management is much more than merely managing sports. It has a business aspect and a sports aspect. Sport is watched and played globally and impacts business

management practices in a number of ways, including through sponsorship, recruitment, and manufacturing. In order to compete globally, managers of sport organizations need to work proactively to build and maintain an international presence. But as the value of teams continues to skyrocket, existing and new owners seek ways to find a return on their investment.

Looking globally at Sports business and its progression into the future, several game-changing trends emerge. From over-the-top streaming platforms to sports betting, and from wearable to the stadium of the future, the technology and strategic advancements have changed the game. As consumers shift from cable to digital media, we can expect an evolution of sports media. Data and analytics increasingly shape the business side of the sports industry. Teams look to innovate game day by optimizing the fan experience beyond the stadium walls. The augmented and virtual reality allow teams and leagues to become more personalized and integrate into players' and fans' daily lives. Sports organizations look to understand and reduce the impact of cyber risk in the sports industry. Sports organizations can benefit from being secure and be more confident in their ability to protect value for a more holistic set of strategic and evolving assets. Owners diversify the sports enterprise to build a more diverse sports experience. Women as both athletes and fans have elevated their stature, and the sports business community is paying attention. As political and social topics permeate headlines in the coming years, many athletes will likely continue to use their platform to bring awareness to the issues that matter to them most, leaving teams and leagues with decisions to make regarding how to enable, manage, or redirect this momentum. With all these dynamics of technology and management and their effect on sports, the trends for sports management have to be shaped accordingly to meet the emerging trends.

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## Medicine Ball Exercises for the Promotion of Motor Fitness of Basketball Players Aged 16 to 18 Years

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### Abstract

Advanced countries like USA, Australia, Germany, Britain, & Russia have made rapid progress in games & sports like Athletics, Soccer, Basketball etc. Sports scientists & Researchers have made the field of sports competitive & specialized. Basketball has undergone a tremendous improvement since 1891. Moontasir expressed that the basketball game demands highly skilled players with maximum physical conditioning. Modern day Basketball is very fast & aggressive, it requires a high degree of flexibility, strength, power, agility & coordination. Performance in every sport depends upon physical fitness. The technical skills and the tactical efficiency depend to a large extent on physical fitness. As a result, increased amount of stress is laid on physical conditioning of the basketball players all over the world.

In this study the researcher selected sixty subjects & divided them in to two equal groups; 30 in Experimental & 30 in Control group. The subjects of Experimental group were imparted selected ten medicine ball exercises for eight weeks and the effect was observed on Motor fitness components like speed, agility, flexibility, power and strength. Both the groups were pre tested for the selected variables using standard tests & also post tested after completion of training program of eight weeks.

On the basis of findings, the researchers have come to the conclusion that

- Medicine ball exercises could contribute to improve most of the motor fitness variables among basketball players.
- Medicine ball exercises could significantly improve performance in Basketball skills as a result of improvement in motor fitness variables.

### Introduction:

Advanced countries like USA, Australia, Germany, Britain, & Russia have made rapid progress in games & sports like Athletics, Soccer, Basketball etc. Sports scientists & Researchers have made the field of sports competitive & specialized. Basketball has undergone a tremendous improvement since 1891. Moontasir expressed that the basketball game demands highly skilled players with maximum physical conditioning. Modern day Basketball is very fast & aggressive, it requires a high degree of flexibility, strength, power, agility & coordination. Performance in every sport depends upon physical fitness. The technical skills and the tactical efficiency depend to a large extent on physical fitness. As a result, increased amount of stress is laid on physical conditioning of the basketball players all over the world.

### Materials & Method:

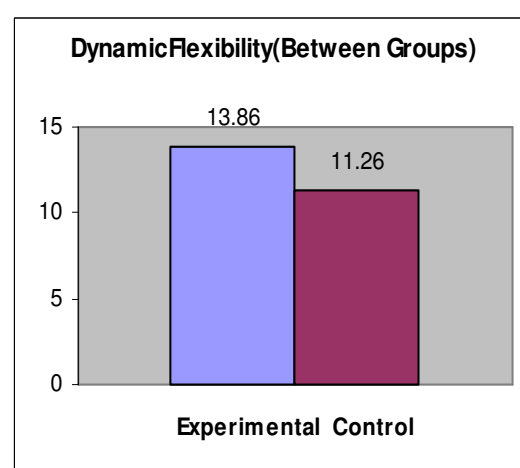
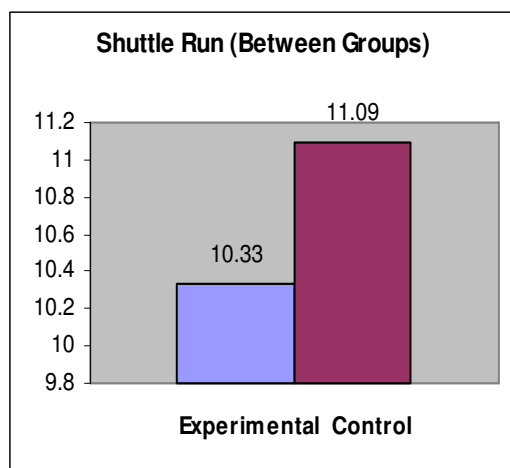
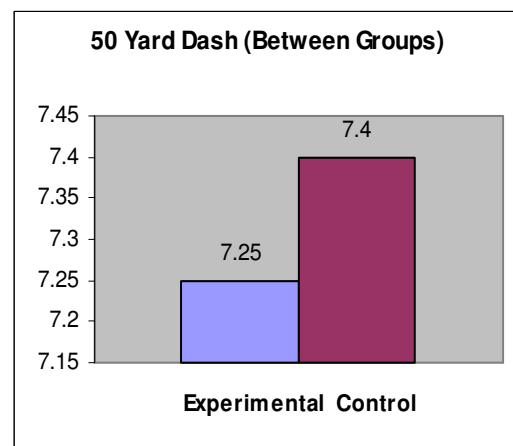
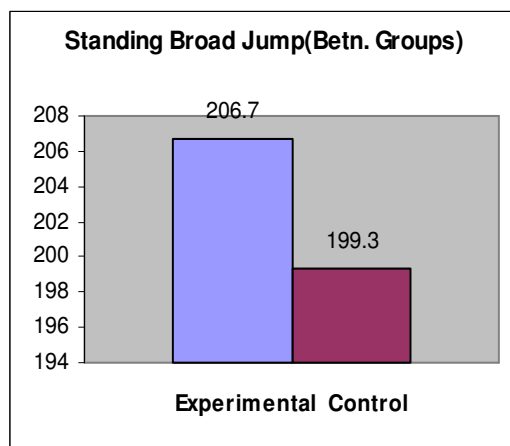
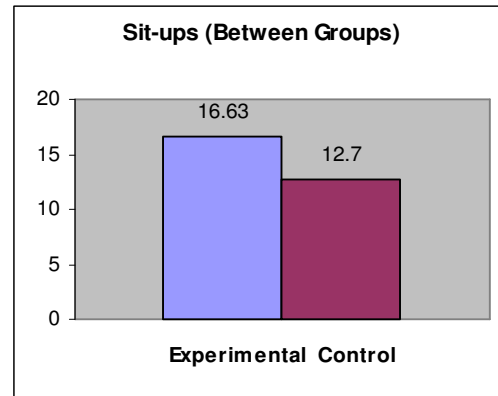
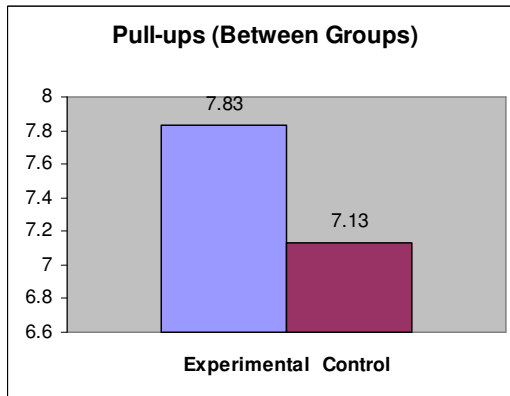
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were pre tested for the selected variables using standard tests & also post tested after completion of training program of eight weeks.

**Results:**

On the basis of findings, the researchers have come to the conclusion that

- Medicine ball exercises could contribute to improve most of the motor fitness variables among basketball players.
- Medicine ball exercises could significantly improve performance in Basketball skills as a result of improvement in motor fitness variables.



**Summary:**

Basketball is probably the most widely played & supported team game in the world. One of the beautiful facts about basketball is the way it makes use of the basic athletic skills like running, jumping, handling the ball, bouncing, catching, passing, throwing it to the target. So this has resulted in speeding up refining the game until it has great game for the youths.

Today it is considered to be a major National game in India. But one of the major reasons why Indian players mature very late as compared to their counterparts in the west is due to the lack of research in different skills of the game and scientific knowledge of coaching. To develop any game and sports is dependent upon the systematic effort and good research in that particular field.

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## **An Effect of Selected Yogic Exercises on Fitness of Hockey Players in Jalgaon District**

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### **Abstract:**

Today Yoga has been widely used for its benefits in sports. Rights from the multinational companies to management institute and even from school teams to various national teams are trying to get benefits of Yoga in various ways, Present study, therefore, incorporated yoga as a training intervention in Hockey players. Life won't be existence without physical exercises. Through physical exercises alone individuals had the capacity make due in this world. The tale of development tosses some light on the nature and sorts of exercises which are a crucial piece of present day physical exercises which are to be fit for normal presence and to meet the incidental crises that emerge. Whatever may the crisis that trust itself on people the individuals need to straighten out and bear on.

History of sports also witnessed inclusion of Hockey at National and International Championship. Since the competitive status of the game " Hockey " is gaining momentum day by day in various Indian states and other countries along with creation of new records, advancements in its technical and tact skills as well as planned scientific training is essentially required to prepare a player of high caliber.

Eighty (n = 80) male elite Hockey players studying in Jalgaon District were selected for this investigation. The age group of the subjects was 16 to 18 years, whereas the age, height, weight index was 250 and or below were pulled randomly as sample by employing Fisher's random Table. The line age has strained upon world new banes vise uneasiness, nervousness, dirtiness and deviate issue. The recent practices very will provide answers for the contemporary social science, mental and therapeutic problems. Ayurveda, yoga, aggressive procedure, needle treatment and weight purpose back rub area unit 2 or 3 the recent Oriental practices. Yoga and aggressive machine on the exciting of kundilini or chi essentiality or life power especially fixture traditions that circulate through the frame in channels called meridians. At particular centers referred to as chakras, essentiality receives the possibility to be engaged.

**Key words:** Hockey, physical exercises, Yoga, History, sports, scientific training

### **Introduction:**

Physical wellness is essential to life and an establishment for profitable action in life. Physical wellness assumes an imperative part in deciding the execution of a player. The top-level execution goes ahead the length of a man tries to enhance physical wellness standard. Change matter is a deep rooted procedure. The low level of physical wellness guarantees defenselessness of the people to numerous issues.

Today Yoga has been widely used for its benefits in sports. Rights from the multinational companies to management institute and even from school teams to various national teams are trying to get benefits of Yogain various ways, Present study, therefore, incorporated yoga as a training intervention in Hockey players.

A decent Hockey player must have the accompanying qualities. He must have the specialized capacity to perform the different aptitudes that the session of Hockey requires. These incorporate scooping, passing, pushing, lifting and spilling with exactness precision and certainty. Flawlessness in pushing, hitting, scooping and spilling is most essential for every single great player regardless of the position they play aside from the objective attendant.

**Methods :****Sample :**

Eighty (n = 80) male elite Hockey players studying in Jalgaon District were selected for this investigation. The age group of the subjects was 16 to 18 years, whereas the age, height, weight index was 250 and or below were pulled randomly as sample by employing Fisher's random Table. The criteria for inclusion and exclusion of the subjects were as follows:

- The players who are the regular practitioners of hockey were included in the experiment.
- The subjects who are expected to remain present till the experimental trials are finished were incorporated in this study.
- The subjects irrespective any communities, willing to participate in this study, were incorporated.
- The players suffering from known serious health problems are to be excluded.

Moreover, players having incapacitating physical illness as ruled out by clinical investigation were excluded prior to the study.

**Experimental Design :**

The subjects were divided into two equal groups viz., Group A and Group B. Group A, were participate in the "Experimental group" (Yogic Exercises Training Schedule), and Group-B, were acted as "Control Group." There were daily 45 minutes practice considered the above schedules except Sundays and holidays. During daily experimental period while all the subjects of selected groups were involved with their respective training schedules, the subjects of control group were kept busy with some recreational activities in Physical Education. Moreover, after completion of daily training schedule for 45 minutes, there was a regular practice of hockey game for 30 minutes.

All the experimental as well as control groups were combined participate in the same. The total Length of time of the experimentation were at least for three months (including testing dates, Sundays, and holidays) which include the one experiment, one follow-up programme to record the long term effects of the experiment. This is a randomized block design (Hubbard, 1973) which consists of the following steps:

**Step-I (Pretest) :**

Selected Fitness components of all the subjects belonging to control and experimental groups were tested prior to the experiment by using standard tests. The selected fitness components as required by the hockey players were assessed by implementing standard tests (Frost & Cureton, 1977), whereas the Hockey skills were assessed by implementing SAI Hockey Skill Tests. The scores of fitness components with hockey skills were recorded carefully.

**Step-II (Training / Treatment) :**

After pre-testing, the subjects of experimental groups was receive their respective training, as stated above, for 45 minutes daily which were followed by a practice of hockey game for 30 minutes. The topics of the manipulate organization were stored busy with leisure activities. Thus all of the topics were concerned for duration of one hr. and 15 mins every

day besides Sundays and holidays. The length of time of this experimentation became at least 12 weeks.

Yoga intervention changed into organized with a number of the Asanas and Pranayamas. This additionally consists of Omkar recitation. These types of contents have been decided on on the basis of diverse reviews on Yoga and sports activities and also based on suggestion from the experts of Kaivalyadhama Yoga Research Institution, Kaivalyadhama, Lonavla. However, following yogic exercises was imparted to the experimental group for total of six weeks:

Table No.1  
List of Names of Yogic Practices

Sr. No.	Name of Yoga Practice	Sr. No.	Name of Yoga Practice
1	Shavasana	12	Parvatasana
2	Pawanmuktasana	13	Tadasana
3	Naukasana	14	Utkatasana
4	Viparitkarani	15	Chakrasana
5	Bhujangasana	16	Vrikshasana
6	Shalabhasana	17	Trikonasana
7	Sarpasana	18	Halasana
8	Vajrasana	19	Sukhasana
9	Vakrasana	20	Padmasana
10	Paschimottanasana	21	Anuloma- Viloma
11	Janushirasana	22	Kapalabhati

### Step-III (1st Post Test) :

After completion of the 6 weeks of experiment, as stated above, all the subjects are both the control and experimental groups were directed for **1st Post-test**. Here the test procedures were same as mentioned in the pre-test.

### Step-IV (1st Follow-Up Programme & 2nd Post Test) :

First Follow-Up (F.U.) Programme was started for another 6 weeks after completion of 1st post test, (Step-III). In that programme, the subjects of all the groups (both control and experimental) were practice hockey regularly for 30 Minutes, day<sup>-1</sup> except Sundays and holidays what they already learnt in Step-II. After completion of the **1st follow-up programme** of 6 weeks, all the subjects of both the control and experimental group were instructed for **2nd Post Test**. Here the testing procedures were same as mentioned in the pre-test.

Table No.2  
Statistical Model for Presentation of data in 2 x 7 Factorial ANOVA

Fitness Variables	Control Group (B1)	Experimental Group (B2)
Body Height (A1)	(A1B1)	(A1B2)
Body Weight (A2)	(A2B1)	(A2B2)
Ball Control test (A3)	(A3B1)	(A3B2)
Goal Shooting (A4)	(A4B1)	(A4B2)
Agility (A5)	(A5B1)	(A5B2)
Strength (A6)	(A6B1)	(A6B2)
Flexibility (A7)	(A7B1)	(A7B2)

**Descriptive Analysis of Data :**

The elucidating measurements of the information have been displayed in Table 3. The scores of pretest (Mean and SD) of control and test gatherings in Body Height test were 173.59 (SD = 14.25) and 172.33 (SD = 15.49) individually. This outcome demonstrates that the pretest method for both the control and the exploratory gatherings were pretty much comparable.

**Table No.3**  
**Central Tendency and dispersion of Experimental and Control Groups in Morphological and Skill Variables of Hockey Players**

Dependent Variables	Control Group (B1)		Experimental Group (B2)	
	Pre	Post	Pre	Post
Body Height (A1) Cm	173.59 (14.25)	174.86 (15.77)	172.33 (15.49)	174.65 (16.21)
Body Weight (A2) Kg	60.50 (8.88)	61.82 (9.39)	62.84 (7.81)	55.30 (8.72)
Ball Control test (A3) Sec	26.36 (4.62)	25.11 (5.22)	25.55 (4.09)	21.94 (5.03)
Goal Shooting test (A4) No	10.50 (3.43)	12.40 (4.02)	11.45 (3.04)	15.72 (4.01)
Shuttle Run test (A5) Sec	12.01 (2.04)	9.90 (1.03)	11.94 (1.24)	8.86 (1.06)
Standing Broad Jump test (A6) Cm	150.10 (20.32)	153.70 (21.20)	157.1 (19.15)	162.7 (20.32)
Sit and Reach test (A7) Cm	21.40 (6.55)	23.11 (7.27)	22.8 (6.10)	29.5 (8.17)

However, in the post-test scores of Body Height (Mean and SD) control and experimental groups were 174.86 (SD = 15.77) and 174.65 (SD = 16.21) respectively (Table 3). The result in turn revealed that although the real difference could not be evident here, however, the post-test score of experimental cluster was more than the management cluster in Body Height check.

The descriptive statistics of the information as conferred in Table 3 disclosed that the pretest execution scores (mean and SD) of management and Experimental gatherings in weight, check were 60.50 (SD = 8.88) and 62.84 (SD = 7.81) individually. This outcome demonstrates that the pretest method for both the control and the trial gatherings were pretty much comparable.

The post-test performance scores in body Weight (M and SD) control and experimental groups were 61.82 (SD = 9.39) and 55.30 (SD = 8.72) respectively (Table 3). The result in turn revealed that although the real difference could not be evident here, however, the post-test performance of experimental group was higher than the control group in Body Weight test.

The descriptive statistics of the data on Ball Control Test, as presented in Table 3, revealed that the pretest execution scores (Mean and SD) of control and test gatherings in were 26.36 (SD = 4.62) and 25.55 (SD = 4.09) individually. This outcome demonstrates that the pretest method for both the control and the exploratory gatherings were pretty much comparative.

The post-test performances (M and SD) control and experimental groups were 25.11 (SD = 5.22) and 21.94 (SD = 5.03) respectively (Table 3). The result in turn revealed that although the real statistical difference could not be assessed here, however on the basis of general observation, the post-test performance of experimental group was lower than the control group in Ball Control Test.

The descriptive statistics of the data on Goal Shooting Test as presented in Table 3 revealed that the pretest execution (Mean and SD) of control and test gatherings were 10.50 (SD = 3.43) and 11.45 (SD = 3.04) separately. This outcome demonstrates that the pretest method for both the control and the exploratory gatherings were pretty much comparative.

Similarly, the post-test performances (M and SD) control and experimental groups were 12.40 (SD = 4.02) and 15.72 (SD = 4.01) respectively (Table 3). The result in turn revealed that although the real statistical difference could not be determined here, however, the post-test performance of experimental group was higher than the control group in Goal Shooting Test.

The descriptive statistics of the data on strength as presented in Table 3 revealed that the pretest execution scores (Mean and SD) of control and trial gatherings in Shuttle Run test were 12.01 (SD = 2.04) and 11.94 (SD = 1.24) separately. This outcome demonstrates that the pretest method for both the control and the test gatherings on transport run were pretty much comparable.

Similarly, the post-test performances (M and SD) control and experimental groups were 9.90 (SD = 1.03) and 8.86 (SD = 1.06) respectively (Table 3). The result in turn revealed that although the real statistical difference could not be determined here, however, the post-test performance of experimental group was higher than the control group in Shuttle Run Test.

The post-test data (M and SD) on strength of control and experimental groups at pre and post tests were 150.10 (SD = 20.32) and 157.1 (SD = 19.15) respectively (Table 3). The result in turn revealed that although the real statistical difference could not be evident here, however, the post-test performance of experimental group was higher than the control group.

Similarly, the post-test performances (M and SD) control and experimental groups were 153.70 (SD = 21.20) and 162.70 (SD = 20.32) respectively (Table 3). The result in turn revealed that although the real statistical difference could not be determined here, however, the post-test performance of experimental group was higher than the control group in Standing Broad Jump Test.

The descriptive statistics of the data on Sit and Reach Test as presented in Table 3 revealed that the pretest execution (Mean and SD) of control and test gatherings were 21.40 (SD = 6.55) and 22.80 (SD = 6.10) separately. This outcome demonstrates that the pretest method for both the control and the trial gatherings were pretty much comparable.

Similarly, the post-test performances (M and SD) control and experimental groups were 23.11 (SD = 7.27) and 29.50 (SD = 8.17) respectively (Table 3). The result in turn revealed that although the real statistical difference could not be determined here, however, the post-test performance of experimental group was higher than the control group in Sit and Reach Test.

Thus, the information, as obtained from measures of central tendency and dispersion, presented in Table 3 revealed that the Yoga Training selected in this study might have the treatment effect in improving some of the variables of physical fitness, however, it is not clearly evidenced statistically that which variables of physical fitness have been influenced.

**Factorial Analysis of data :**

The report of investigation (2x7 Factorial ANOVA) as displayed in table 4 uncovered that the execution scores in the chose morphological and expertise variables of the control and exploratory gatherings were not fundamentally comparable ( $F = 91.66$ ,  $p < 0.01$ ). The effect of such measurable distinction has been prove on account of their gathering correlation ( $F = 29.44$ ,  $p < 0.01$ ). Table 4 additionally demonstrates that the chose Yoga Training couldn't assist to enhance a percentage of the variables ( $F = 1.65$ ,  $p > 0.05$ ).

From Table.4 despite the fact that it is obvious that a portion of the variables couldn't pick up fundamentally, the distinguishing proof of those variables were dictated by utilizing Scheffe's Post Hoc methods. The thing shrewd or occasion astute investigation has been exhibited underneath.

Table No.4

**ANOVA for Mean Performance in Dependent Variables of Selected Subjects**

Source of Variation	SS	D f	MS	F
TOTAL	15380.61	398	--	--
Dependent variables (A)	7106.04	4	1776.51	91.66**
Subject's Group (B)	570.65	1	570.65	29.44**
Interaction (AB)	223.86	7	31.98	1.65
ERROR	7480.06	386	19.38	--
** p < 0.01		* p < 0.05		

**Conclusion :**

The results as presented in this thesis help to conclude that, although yoga training brought positive trend of improvement in body height of selected hockey players, but it was not statistically significant. Many of the selected hockey players had more body weight and yoga training intervention helped to reduce them within normal range. Yogic exercises helped to improve the skill abilities of hockey players. Occurrence of sports injury was also reduced due to yoga training intervention. There was critical relationship between hockey playing capacity and physical wellness variables nimbleness and velocity of the hockey players. It was reasoned that the hockey playing capacity of hockey players could be anticipated from the chose physical wellness variables to be specific, spryness and speed. There was critical relationship between hockey playing capacity and physiological variables basic limit of the hockey players. It was inferred that the hockey playing capacity of hockey players could be anticipated from the chose physiological variables in particular, imperative limit and resting heartbeat rate.

It was reasoned that the hockey playing capacity of hockey players could be anticipated from the chose Yogic activities. There was noteworthy relationship between hockey playing capacity and expertise variables spilling, ball control and objective shooting exactness of the hockey players. The measurable critical distinction exists in the middle of pre and post test scores of pace for test gathering is because of the yogic activities for both prepared and novice players. For concerning with control bunch, there is no measurable noteworthy contrast in the middle of pre and post test scores. For amateur players, the trial and control gathering was indicated huge distinction on the execution of rate. So the yogic activities impact the execution of rate for tenderfoot players.

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## **A Survey of Sports Participation Motives among the College going Youth of Kashmir**

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**Dr. Ujwala Koche:**

### **Abstract**

The objective of the study was to understand the reasons behind participations in sport among the college going youth of Kashmir. Fifty student athletes were randomly contacted during the Four days annual inter-college athletic meet-2017 at the University of Kashmir athletic ground. The Participation Motivation Questionnaire (PMQ) (Adapted from Gill, D.L., Gross, J.B., and Huddleston, S. 1983) was distributed among the athletes to seek their respond on the questions regarding their motivation to participate in sports. Independent sample 't' test was used to analyze the gender difference in sports participation motivation, and it was found that except two subscales (Fun, Competitiveness) there are no difference in the mean value of participation motivation scales between male and female athletes. Further, it has been found that among the female athletes the most important reason for the participation in sports was "team spirit" and the least important reason was "competitiveness" whereas, among the male athletes the most important reason was "skill improvement" while the least important reason was "competitiveness". The results of the study will help the physical education teachers and coach to identify what motivates students to participate in sports. Through identification of these motivations professional will be able to adjust the sports activities to suit the desires of your students. In doing so, it will help to motivate students by giving them activities that they want to partake in and to break down the barriers that prevent motivated sports participation.

**Key Words:** Motivation, Sports, College Youth and Kashmir,

### **Introduction**

The benefits of participations in physical activities and sports are well documented in the literature of sports sciences. Regular participation in sports help to improve physical, mental, social, psychological, and physiological components of the individuals personality. As stated by the President's Council of Physical Fitness & Sports (Staff, 1992), 'If exercise could be packed into a pill, it would be the single most widely prescribed and beneficial medicine in the nation'. In spite of the fact that sports and physical activities have so many benefits, the participations of youth in sports is not high. Motivation is the one of the very importance factor for youth participation in sports, motivation comes in many forms. Sometimes it is internal and come from a personal desire to find success independent of external rewards and enticements. Sometimes it is external in nature and come from a desire to gain notoriety, fame, or financial reward. A number of differences were found when comparison of motives behind sports participation among the youth. This study aims to find out whether there is a difference, on the basis of gender on subscales of participation motivation scale.



## Methods & Materials

### Participants

The participants were from different colleges of Kashmir division affiliated to University of Kashmir. Fifty male and female students (25 each) were randomly selected among the hundreds of student athletes who had participated in the four days annual inter-college athletic meet-2017 at the University of Kashmir athletic ground.

### Tool used

For the purpose of measuring motives among the students a modified version of the Participation Motivation Scale was utilized. The Participation Motivation Scale for Sport Activities was developed by Gill, Gross and Huddleston (1983). Participation Motivation Scale for Sport Activities is consisted of 27 items and 7 subscales to explain the individuals' reasons to participate in sport activities. In order to determine significance of each independent reasons of respondents regarding participating sport and exercise activities, a three-point Likert Scale was used, which consisted of items as "Very Important", "Somewhat Important" and "Not Important". This instrument is made up of 7 subscales (Fitness, skill, fun, affiliation, recognition, team spirit and competitiveness).

## Results and Discussions

Results from the analyses carried out in accordance with the purpose of the study were presented in the tables below. The descriptive statistics were calculated to understand the college students' motivation behind participation in sports and it is found that all the factors of motivation are equally important for the participation in sports (Table No. 1).

**Table 1. Descriptive statistic of the subscale of participation motives for sports**

Subscales	Gender	N	Mean	Min.	Max.	Std. Deviation
Fitness	Male	25	8.24	3	9	.723
	Female	25	8.12	3	9	.665
Skill	Male	25	16.80	6	18	1.11
	Female	25	16.40	6	18	.816
Fun	Male	25	14.56	5	15	.58
	Female	25	14.16	5	15	.746
Affiliation	Male	25	5.00	2	6	.707
	Female	25	4.72	2	6	.678
Recognition	Male	25	14.20	5	15	.763
	Female	25	14.12	5	15	.725
Team factor	Male	25	14.12	5	15	.832
	Female	25	14.28	5	15	.541
Competitiveness	Male	25	7.20	3	9	.577
	Female	25	6.32	3	9	.988

**Table 2. Comparison of participation motives scales between male and female youth**

Subscales	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Fitness	.610	48	.545	.12000	.19664
Skill	1.445	48	.155	.40000	.27689
Fun	<b>2.112</b>	48	.040	.40000	.18938
Affiliation	1.429	48	.160	.28000	.19596
Recognition	.380	48	.706	.08000	.21071
Team factor	-.805	48	.425	-.16000	.19866
Competitiveness	<b>3.844</b>	48	.000	.88000	.22891

**Table 3. Motives reported Male and Female and their Rank**

Subscale	Male		Female	
	Rank	Mean	Rank	Mean
<b>Fitness</b>	5	2.74	5	2.70
<b>Skill</b>	3	2.8	4	2.73
<b>Fun</b>	1	2.91	2	2.83
<b>Affiliation</b>	6	2.5	6	2.36
<b>Recognition</b>	2	2.84	3	2.82
<b>Team factor</b>	3	2.82	1	2.85
<b>competitiveness</b>	7	2.4	7	2.10

Independent sample 't' test was used to analyze the gender difference in sports participation motivation, and it was found that except two subscales (Fun & Competitiveness) there are no difference in the mean value of participation motivation scales between male and female athletes (Table 2.). Further, it has been found that among the female athletes the most important reason for the participation in sports was "team spirit" and the least important reason was "competitiveness" whereas, among the male athletes the most important reason was "skill improvement" while the least important reason was "competitiveness" (Table 3.).

The results of the study indicate that college athletes irrespective of gender, some of the factors namely: fitness, skill, fun affiliation, recognition, team spirit and competitiveness

are the basic motives for involvement in sports among the youth. A previous study (Flood & Hellstedt, 1991) reported collegiate female athletes being most motivated by social and fitness factors, with competition being a secondary motive. In lines with the previous studies it is found that, the fun and excitements are the primary reasons for male athletes' participation in sports, whereas, Team factor is the primary reasons for the female athletes' participation in sports.

### Conclusions

The present study attempted to identify the individual's reasons or motivations for participating in sports. The results of the study will help the physical education teachers and coach to identify what motivates students to participate in sports. Through identification of these motivations professional will be able to adjust your lesson programs and activities to suit the desires of your students. In doing so, it will help to motivate students by giving them activities that they want to partake in and to break down the barriers that prevent motivated sports participation.

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## **Effect of Ballistic Training on Strength and Skill Performance of Male Volleyball Players**

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### **Abstract**

Today specialized training programmes are developed taking into the consideration of the physical and psychological ability of a player, therefore every sport is played in a highly competitive and organized manner. The purpose of this study was to collect scientific evidence in connection with the utility of Ballistic Training for the promotion of Strength and skill performance of male volleyball players. To achieve the purpose of the study the parallel group design was formulated for this study in which forty subjects were randomly selected from 200 players. The subjects were selected from various colleges from Thane District affiliated to University of Mumbai and People's Education Society, Thane, with the age group from 16 to 25 years divided into two equal groups of experimental and control group, twenty subjects in each. The experimental group was assigned with Ballistic Training (ie Resistance Training and Plyometric Exercises) programme for a period of 4 months 3 days in a week, in the morning session for 1 hour duration and the control group was strictly under control not involved in any special training. Pre-tests and Post-tests were conducted on the Strength and skill performance of male volleyball players administering standardized test for all the selected subjects. The Collected data were analyzed by using the following tests. The pre-test and post-test scores were subjected to statistical analysis using paired 't' test and Analysis of covariance ( ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses. From the findings it is concluded that the Ballistic Training showed significant improvement on strength ( Shoulder, Abdominal and Leg ),and Skill Performance (Passing Ability, Service Ability) of male volleyball players.

**Key words:** Ballistic training, strength, service

### **Introduction**

Life is symbol of active movement which was considered synonymous by Plato who said "When and where movement finishes life finishes itself." Essence life is vigorous physical movement. In modern scientific age in every field of human endeavor systematic objectives and scientific procedures are followed in accordance with the principles based on experiences understanding and application of knowledge of science and inter-related subjects. Today specialized training programmes are developed taking into the consideration of the physical and psychological ability of a player, therefore every sport is played in a highly competitive and organized manner. Volleyball is one of the most successful and popular

competitive & recreational sports in the world. It is fast and exciting and action is explosive. Volleyball has developed into highly competitive sport which requires a high level physical, physiological and psychological.

### **Ballistic Training**

Ballistic training was first used among elite athletes who were looking for a method to develop explosiveness. The word ballistic comes from the Greek word βάλλειν (*ballein*), which means "to throw." In this type of training the athlete accelerates and releases the weight into "free space." Common ballistic training exercises are bench throws, jump squats, cleans, snatches, and push presses. Ballistic training forces the athlete's body to recruit and trigger fast twitch muscle fibers. This is important because these muscle fibers have the greatest potential for growth and strength. Ballistic training requires the muscles to adapt to contracting very quickly and forcefully. This training requires the central nervous system to coordinate and produce the greatest amount of force in the shortest time possible.

### **Research Aim and Objectives of the Study**

- To study the effect of Ballistic training on Strength (shoulder strength) of male volleyball players.
- To study the effect of Ballistic training on Strength (abdominal strength) of male volleyball players.
- To study the effect of Ballistic training on Strength ( leg strength ) of male volleyball players.
- To study the effect of Ballistic training on Skill performance (service ability) of male volleyball players.
- To study the effect of Ballistic training on Skill performance (passing ability) of male volleyball players.

### **Hypotheses**

H<sub>1</sub>: The Ballistic training will significantly improve the shoulder strength of male volleyball players.

H<sub>2</sub>: The Ballistic training will significantly improve the abdominal strength of male volleyball players.

H<sub>3</sub>: The Ballistic training will significantly improve the leg strength of male volleyball players.

H<sub>4</sub>: The Ballistic training will significantly improve the passing ability of male volleyball players.

H<sub>5</sub>: The Ballistic training will significantly improve the service ability of male volleyball players.

### **Research Methodology**

The purpose of this study was to collect scientific evidence in connection with the utility of Ballistic Training for the promotion of Strength and skill performance of male volleyball players. To achieve the purpose of the study the parallel group design was formulated for this study in which forty subjects were randomly selected from 200 players. The subjects were selected from various colleges from Thane District affiliated to University of Mumbai and People's Education Society, Thane, with the age group from 16 to 25 years divided into two equal groups of experimental and control group, twenty subjects in each. The experimental group was assigned with Ballistic Training (ie Resistance Training and

Plyometric Exercises) programme for a period of 4 months 3 days in a week, in the morning session for 1 hour duration and the control group was strictly under control not involved in any special training. Pre-tests and Post-tests were conducted on the Strength and skill performance of male volleyball players administering standardized test for all the selected subjects. The Collected data were analyzed by using the following tests

### Statistical Analysis and Findings

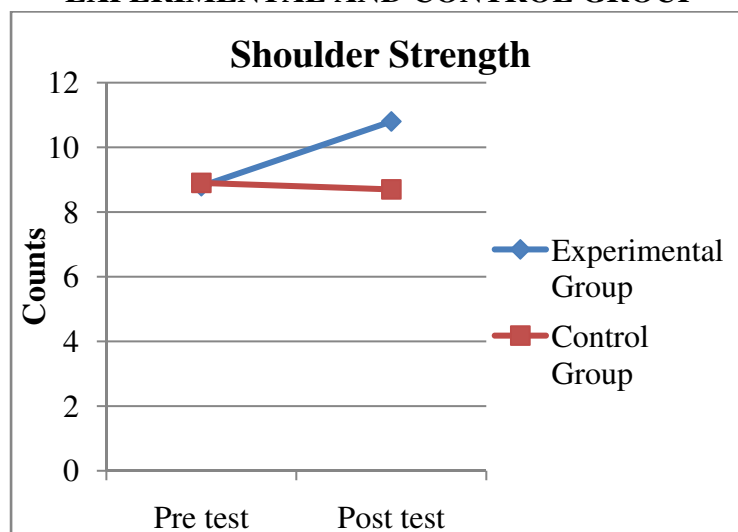
The Collected data were analyzed by using the following tests. The pre-test and post-test scores were subjected to statistical analysis using paired 't' test and Analysis of covariance ( ANCOVA) to find out the significance among the mean differences, whenever the 'F' ratio for adjusted test was found to be significant Scheffe's post hoc test was used. In all cases 0.05 level of significance was fixed to test hypotheses.

### Result of (Shoulder Strength ) among Experimental and Control Group

The initial mean of shoulder strength of experimental group was  $8.80 \pm 2.09$ , while that of control group was  $8.90 \pm 1.65$ . After four months of Ballistic Training, mean of shoulder strength of experimental group was  $10.80 \pm 2.37$  while that of control group was  $8.70 \pm 1.55$ . Similarly, before the commencement of training the minimum and maximum shoulder strength of experimental group was 6.0 and 14.0 respectively, while that of control group was 6.0 and 12.00 respectively. After four months of ballistic training the minimum and maximum shoulder strength of experimental group was 8.00 and 15.00 respectively, while that of control group was 5.00 and 12.00 respectively. From the discussion it is evident that after four months of ballistic training the mean difference in shoulder strength of experimental group was significant. Thus the hypothesis  $H_1$ : "The Ballistic training will significantly improve the shoulder strength of male volleyball players" is accepted.

Figure 1

### MEAN PLOTS OF PRE TEST AND POST TEST ON SHOULDER STRENGTH OF EXPERIMENTAL AND CONTROL GROUP



### RESULT OF (ABDOMINAL STRENGTH) AMONG EXPERIMENTAL AND CONTROL GROUP

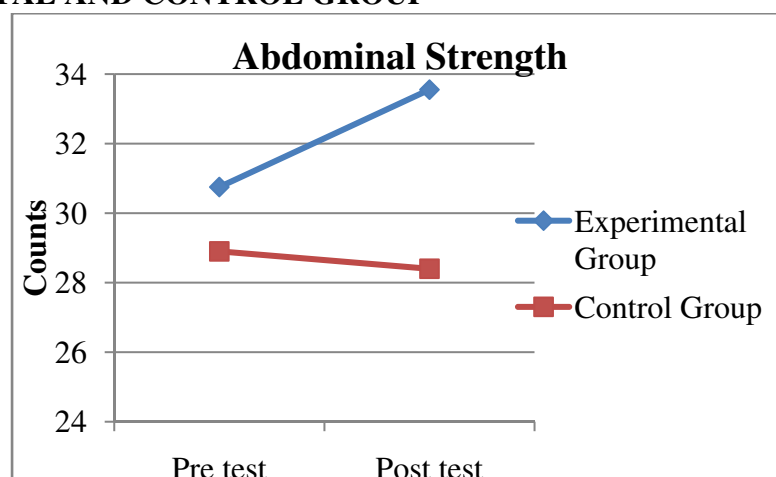
The initial mean of abdominal strength of experimental group was  $30.75 \pm 6.01$ , while that of control group was  $28.90 \pm 6.78$ . After Four months of Ballistic Training mean of abdominal strength of experimental group was  $33.55 \pm 6.41$  while that of control group was  $28.40 \pm 7.04$ .

Similarly, before the commencement of training the minimum and maximum abdominal strength of experimental group was 19 and 47 respectively, while that of control group was 19 and 45

respectively. After four months of ballistic training the minimum and maximum abdominal strength of experimental group was 25 and 52 respectively, while that of control group was 15 and 41 respectively. From the above it is evident that after four months of ballistic training the mean difference in abdominal strength of experimental group was significant. Thus the hypothesis  $H_2$ : **“The Ballistic training will significantly improve the abdominal strength of male volleyball players”** is accepted.

Figure 2

#### MEAN PLOTS OF PRE TEST AND POST TEST ON ABDOMINAL STRENGTH OF EXPERIMENTAL AND CONTROL GROUP



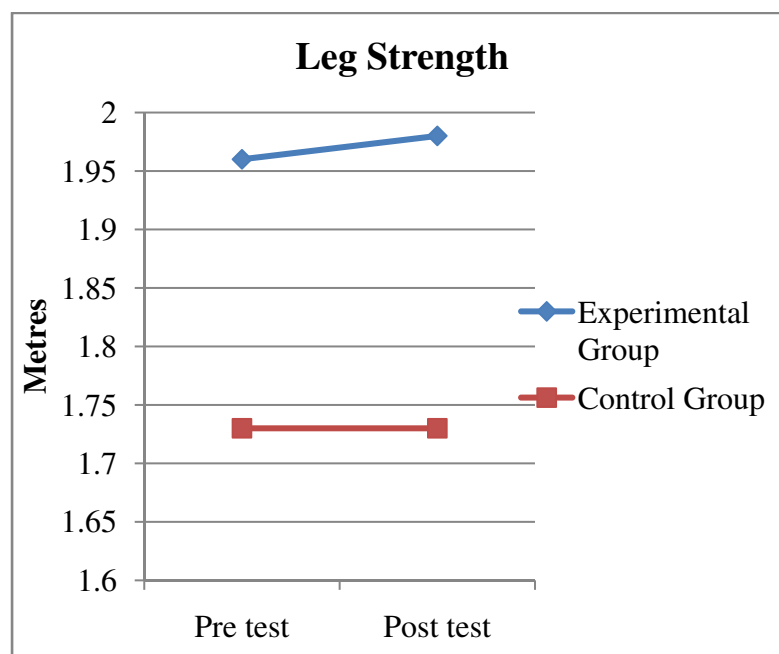
#### RESULT OF (LEG STRENGTH) AMONG EXPERIMENTAL AND CONTROL GROUP

The initial mean of leg strength of experimental group was  $1.96 \pm .27m$ , while that of control group was  $1.73 \pm .30m$ . After Four months of Ballistic Training mean of leg strength of experimental group was  $1.98 \pm .27m$  while that of control group was  $1.73 \pm .30m$ .

Similarly, before the commencement of training the minimum and maximum leg strength of experimental group was  $1.45m$  and  $2.40m$  respectively, while that of control group was  $1.05m$  and  $2.05m$  respectively. After four months of ballistic training the minimum and maximum leg strength of experimental group was  $1.47m$  and  $2.40m$  respectively, while that of control group was  $1.06m$  and  $2.05m$  respectively. From the discussion it is evident that after four months of ballistic training the mean difference in leg strength of experimental group was significant. Thus the hypothesis  $H_3$ : **“The Ballistic training will significantly improve the leg strength of male volleyball players”** is accepted.

Figure 3

**MEAN PLOTS OF PRE TEST AND POST TEST ON LEG STRENGTH OF EXPERIMENTAL AND CONTROL GROUP**

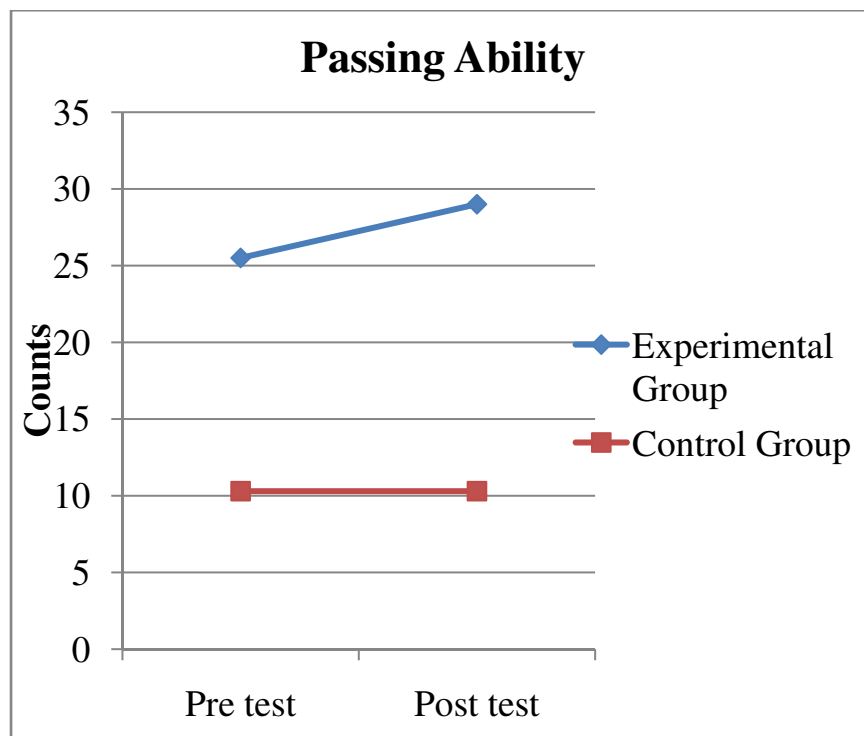


**RESULT OF SKILL PERFORMANCE (PASSING ABILITY) AMONG EXPERIMENTAL AND CONTROL GROUP**

The initial mean of passing ability of experimental group was  $25.50 \pm 4.85$ , while that of control group was  $10.30 \pm 3.13$ . After Four months of Ballistic Training mean of passing ability of experimental group was  $29.00 \pm 4.53$  while that of control group was  $10.30 \pm 3.01$ . Similarly, before the commencement of training the minimum and maximum passing ability of experimental group was 15.00 and 32.00 respectively, while that of control group was 6.00 and 17.00 respectively. After four months of ballistic training the minimum and maximum passing ability of experimental group was 20.00 and 35.00 respectively, while that of control group was 6.00 and 15.00 respectively. From the discussion it is evident that after four months of ballistic training the mean difference in passing ability of experimental group was significant. Thus the hypothesis  $H_4$ : **“The Ballistic training will significantly improve the passing ability of male volleyball players”** is accepted.



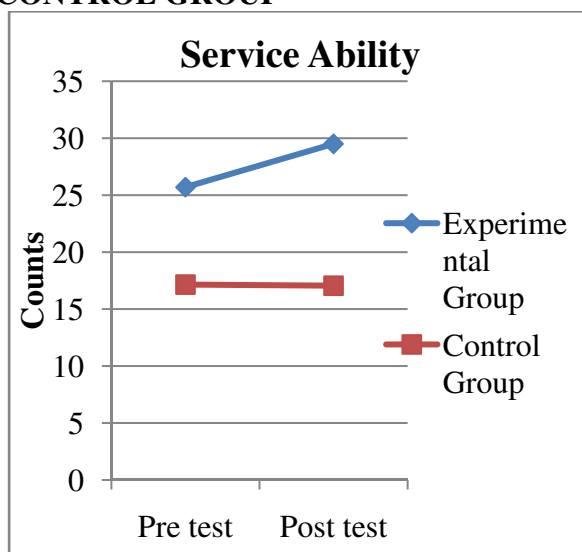
**Figure 4**  
**MEAN PLOTS OF PRE TEST AND POST TEST ON PASSING ABILITY OF EXPERIMENTAL AND CONTROL GROUP**



**RESULT OF SKILL PERFORMANCE (SERVICE ABILITY) AMONG EXPERIMENTAL AND CONTROL GROUP**

The initial mean of service ability of experimental group was  $25.70 \pm 4.23$ , while that of control group was  $17.15 \pm 2.96$ . After Four months of Ballistic Training mean of service ability of experimental group was  $29.55 \pm 4.46$  while that of control group was  $17.05 \pm 3.69$ . Similarly, before the commencement of training the minimum and maximum service ability of experimental group was 18.00 and 35.00 respectively, while that of control group was 12.00 and 24.00 respectively. After four months of ballistic training the minimum and maximum service ability of experimental group was 22.00 and 39.00 respectively, while that of control group was 10.00 and 24.00 respectively. From the discussion it is evident that after four months of ballistic training the mean difference in service ability of experimental group was significant. Thus the hypothesis  $H_4$ : **“The Ballistic training will significantly improve the service ability of male volleyball players”** is accepted.

**Figure 5**  
**MEAN PLOTS OF PRE TEST AND POST TEST ON SERVICE ABILITY OF EXPERIMENTAL AND CONTROL GROUP**



### Conclusions:

From the findings it is concluded that the Ballistic Training showed significant improvement on strength ( Shoulder, Abdominal and Leg ),and Skill Performance (Passing Ability, Service Ability ) of male volleyball players.

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## Study of Efficacy of Department of Sports in Development of Sports in Colleges

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### Abstract

With sports gaining importance in India, schools and colleges too have been giving prominence to sports because it is said that for overall development of students, sports or physical education plays an important role. As per UGC it is compulsory for colleges to have a Department of Sports and appoint a Physical Education Director. Intention is to encourage sports among students. In school too, there is a sports teacher. In foreign countries, especially in the west, students from school life are encouraged to learn sports while in India the scenario is quite different. Involvement of students in sports activities is lacking. Students involved in sports face various issues from various centers. This paper examines the importance to sports given by colleges and efficiency of functioning of Department of Sports, what are the hurdles in developing sports in colleges, etc. The aim of this paper is to get insight into sports in colleges and suggest measures to improve the Department of Sports.

**Key words:** Sports, Physical Education Director, Department of Sports, Sports Quota, Colleges

### Introduction

In India since Vedic era various sports have been played. India has been the origin of playing cards, snake and ladder and chess which were later spread to foreign countries where they changed their form. Kabbadi, wrestling, hockey, were sports played since many years. Since the British rule cricket and football too became popular. Various awards are initiated to encourage sports. For accomplishments in sports India's highest awards – The Rajiv Gandhi Khel Ratna and the Arjuna Award were introduced and for appreciating excellent coaches, Dronacharya Award was originated. Department of Sports was established in 1982, the year in which IX Asian Games took place in New Delhi. The aim was to promote sports. Later the name was changed to The Ministry of Youth Affairs and Sports. Sports Authority of India, working under the said Ministry, was given the responsibility to help develop youth and give a chance to their talent and provides them with the necessary facilities, equipments and infrastructure and harness their talent by providing them opportunities to take part in various sports competitions. India has not only co-hosted several sports events but also individually hosted them. The list includes 1951 and the 1982 Asian Games, Cricket World Cup in 1987 and 1996, Afro-Asian Games in the first of 2000's, Hockey World Cup and Commonwealth Games in 2010. Chennai Open, Mumbai Marathon, Delhi Half Marathon, and the Indian Masters are international sporting events held in India. It has also co-hosted Cricket World Cup and the Indian Grand Prix. Various associations are formed for varied games played in India with a vision to motivate them.

India has a list of players who have got name and fame to India – Bishen Singh Bedi, Nawab Pataudi, Kapil Dev, Sunil Gavaskar, Sachin Tendulkar, etc. in cricket, Sania Mirza, Mahesh Bhupathi, Leander Peas, etc. in tennis, Michael Ferreira, Geet Sethi, Pankaj

Advani, etc. in Billiards, Vishawnathan Anand in Chess, P.T. Usha, etc. in running race, Prakash Padukone in Badminton, Vijendra in wrestling, Abhinav Bindra in shooting, etc.

With a lot of publicity to these games and their players, it seems that all is well in and with sports. It is a known fact that with the population and potential of India, the performance in various sports shows an unhappy picture. It is always recommended that sports should start at a very young age – from primary school itself. An attempt must be made to know how much their school or college played a role in their success. This paper tries to find out the role of Department of Sports in colleges.

### **Objectives of the Study**

1. To critically understand the functioning of Department of Sports in colleges.
2. To find out the problems related to Department of Sports, if any and suggest practical measures.

### **Hypothesis of the Study**

H0: There are no problems of Department of Sports.

H1: There are problems of Department of Sports and there is need to overcome the problems so that they serve the purpose for which they are established mandatorily.

### **Research Methodology**

The research area for the study is Bhusawal taluka of government aided degree colleges. In Bhusawal talukathere are four colleges of undergraduate level. For primary data Random Sampling Technique with a sample size of 50 respondents, who were taking part in sports activities of colleges was taken. 5 Directors of Physical Education from not only Bhusawal but also other college in North Maharashtra University were interviewed. For students, questions relating to their admission into college – through sports quota or not, who encourages them for sports, their expectations from college relating to sports, etc. were asked mainly by multiple choice and open-ended questions. Physical Education Directors were asked open ended questions. Secondary data too was made use of to get a better understanding on the topic.

### **Data Analysis**

From the analysis of questionnaires received from respondents, interview with Physical Directors and secondary data, the findings were as follows:

#### **1. Involvement of Girls in Sports**

India has been condemned for neglecting women in sports. It is a well-known fact that women's sports associations lack funds and are under-sponsored. On the other hand, it is witnessed that female cricket team is getting recognition. But it cannot be denied that in a stereotypically male-dominated country, the participation of girls in sports is less due to lot of family pressure. From the findings itself it was found that in all women's college in Bhusawal sports was just a formality with little or no participation.

When these girls and other girls of other colleges were interviewed expressed that there was lack of encouragement from the parents and family members. The society's way of thinking is a big hurdle in a family encouraging girls to participate in games and sports. In general, there is lack of sports orientation of the people living in the society and the situation becomes worse when it comes to girls.

In addition, appointment of male Physical Director and coaches too become a stumbling block for parents allowing their girls to take part in sports as it requires practice till late in the evenings and going out of town to participate in tournaments and matches.

The level of restrictions on girls' participation in sports depends not only on family and parents but also on the community, tradition, religion and college environment.

An interesting fact which came into light was that girls of government college expressed more reluctance towards sports as compared to girls of private college. This was agreed by Physical Education Directors who would meet at various matches and tournaments where students of private colleges also participate.

## **2. Interference from Parents**

In India there is a tendency of parents to interfere with the decisions of the child, be it education, sports or jobs/professions. Parents interference is too much. This hinders the child to play the game fairly. They are Paly the game parents want. They even try to influence the Physical Director. This affects the quality of performance of sports of college. 40% of the Physical Directors asserted to this.

## **3. Encouragement**

It is not only girls who are not encouraged. Encouragement is not given by parents as in spite of too much publicity to games and their players most of the parents prefer their children to go in for traditional education and get a respectable job. Most of the student respondents in sports said that they were self-motivated and a little bit encouragement from uncles. None received encouragement from sports teachers. The reason could be that the Physical Director may not be aware that a particular student is interested in sports.

## **4. Infrastructure**

All the respondents opined that the facilities required for sports was missing. Various equipment and playing material were either not there or worn out.

## **5. Playground**

A quick glance of India's passion for sportsexpose the non-sportiness of the people. This isn't because they don't like sport, but that there's just no place to play. Even if there is a playground, it is uneven, affecting the practice and performance of the student. For a student to practice the college playground is not enough. There should be place near his house too to play. The Playgrounds have either been taken over for real estate projects. At time they are turned into mega stadiums where only a few can play. Indoor arenas are few, expensive and barred to most of the public.

## **6. Funds for Sports**

Sports Directors complained that very less percent of budget is kept for sports by colleges. To get reimbursement from college for expenses also is a big problem because of various administrative procedures and paperwork. This takes away a lot of time of theirs which could be utilized for caching.

## **7. Starting Age**

Most of the respondents started playing only in or after 9<sup>th</sup> Standard. For becoming a national and international level sportsperson, one has to start from a very young age. Thus, many students who play from colleges are able to reach only state level.

## **8. Recognition**

All respondents felt that their efforts to bring name and fame through sports and winning prizes in it does not get them the required recognition in comparison to students who do academically well. This causes a lot of frustration.

## **9. Cooperation from Management, Teaching Faculty and Physical Education Director**

90% plus respondents complained that they faced lack of support either from management, teachers or at times from physical education director. This attitude causes a lot

of hardships to students when it comes to internal exams and attendance. Cooperation between teachers and Physical Education Director and non-teaching staff is missing. In a research paper an incident was cited where professor “forgot” to register him under it and thus began all the problems. With a poor attendance owing to sports commitment and not being registered under the sports quota, he was not allowed by the college to sit for his exams. He had no other option than to apply in other colleges with a hope that he will be allowed to join the second year, instead of having to repeat his first year. He could not even celebrate the team’s victory. Lack of empathy of college staff is deterrent to sports in colleges.

#### **10. Stringent Rules**

In a country obsessed with education, conflict of interest is but natural. Technically, every student must have attendance of eight per cent to be able to sit for exams. This rule is at times taken too seriously and students going for sports practice and tournaments are harassed and at times students of a particular sport is given concession while other is not. 80% of the students involved in sports complained of it. Through the study of secondary data there are instances where teachers don’t grant attendance and put their foot down insisting that it is imperative that a student take up an assignment or test. This is when as per rule there is relaxation of attendance for such students.

#### **11. Coping with Education and Sports**

With whatever little time the student gets other than practice of sports or going for tournaments, he has to catch up with college education. Sports practice and tournaments takes a lot of time and the student is unable to attend regular lectures. He has to either depend on notes or friends. Coping with college exams— internal as well as external, becomes a problem. And non-cooperation from teachers adds to his woes.

#### **12. Admission through Sports Quota**

A lot is talked about government encouraging sports by providing admission to colleges through sports quota. But all the respondents interviewed said that they did not get admission through sports quota. The question is then who gets in through the quota.

Though the presence of sports quota across universities is a boon to young sporting talent, looks like there’s still a long way to go till it shapes up to fully justify its existence. This is so because from the study of written material on sports it came to light that the sports quota has turned into just an entry route for better educational institutions rather than an opportunity to enhance the sporting skills and take the sporting career ahead. The attitude is more unprofessional in the professional courses like engineering and medicine where seats are ‘costly’.

Universities and colleges across the country have been recognizing sporting talent by offering seats through the sports quota, though the percentages or seats may vary. As per the regulations of the Delhi University, a minimum of 66 per cent attendance is required, beyond which special requests can be made to the VC. There are ordinances in place, where attendance should be given to students participating in sports, but people don’t follow rules. As stated in point no. 10 teachers put their foot down and do not allow students to sit for exams.

In Andhra Pradesh, there is nothing sporting about the sports quota in the educational institutions and unfortunately some unsporting methods are used to drive away the real sportsmen. Physical Directors in the universities and colleges believe that lesser-known sports are included in the eligibility list by the Sports Authority of Andhra Pradesh to favour children of officers and politicians. The students secure national-level certificates of such

games playing for one or two years and participate in the competitions that lack seriousness. For example, seats in the popular OU College of Engineering have been taken by roller skating sportsmen in the last three years.

It is also shocking, but true, that seldom players from popular sports like cricket, football, hockey, basketball or athletics get a fair share in sports quota admissions and the lion's share is grabbed by sports like Taekwondo, Ice Hockey and Roller Skating.

Admissions in the sports quota are based on the level of the competition played by the candidates and not the marks secured in the qualifying examination. It is easy to manipulate in lesser-known games whereas it takes at least 10 years to reach national-level in popular sports, revealed a sports authority in an interview.

Though unfortunate but it is a fact that the sports quota is misused in the name of law and it doesn't serve its actual purpose. Due to lesser-known games being included for sports quota, the students who play games like hockey, cricket, football, and are in athletics are at a loss as they are not admitted on the basis of their sports and ultimately lose the opportunity and concessions to utilise the facilities provided by colleges.

Many colleges which are famous for sports lure students excelling in sports by extending academic and monetary concessions. Unfortunately, those who excel in college at undergraduate level fade away later due to many factors and circumstances and thereby defeat the very purpose of sports quota.

### **13. Lethargy of students**

An interesting point that came to notice after interview with Physical Education Directors and literature review that many discontinue sports once they gain admission to colleges. They cease to play their sport but continue to enjoy the privileges like less attendance, that come with the quota. It becomes unfair on the student who has got in through the quota and works hard to balance both his studies and sport.

### **14. Filling Records**

One of the most destructive forces in youth sports are sports teachers that take huge rosters of players for financial reasons, and then don't give attention to the students in playing time. They fill their rosters not for the benefit of the players (who get less playing time or none at all) but for the bottom line of the college. This is at times due to pressure from management.

The above findings confirm that "H1: There are problems of Department of Sports and there is need to overcome the problems so that they serve the purpose for which they are established mandatorily" is accepted. The researcher provides practical measures to overcome the problems to make Department of Sports more efficient.

### **Recommendations**

On the basis of findings from the study of replies given by respondents – students and Physical Education Directors and review of literature, the following suggestions are given:

#### **1. Involvement of Girls in Sports**

- i) Because of male coach female's parents are apprehensive, appoint a female referee, coach or a female assistant to a male Physical Education Director.
- ii) Counsel the parents of girls during admission as how important or good it is for girl to take part in sports. This is especially if the girl has earlier participated in sports activities or is interested in a particular sport. Let the parents know that their girls will be secure in sports.

**2. Interference from Parents**

No parent should be allowed to interfere with sports his child will play. Quality should be the only criteria. For this Management and Physical Education Directors have to be firm. Sports student should be allowed to take his own decision. Because as per psychology one excels in something he or she is interested in and not because they were forced by someone.

**3. Encouragement**

There must be a good leadership among physical education personnel and a proper motivating system. Counselling and motivation by especially Physical Education Directors and staff will go a long way in improving the performance of the students in sports.

**4. Infrastructure**

Proper modern facilities, equipments and playing material required for sports should be provided. The best way to see that it is done is that NAAC Committee should allot more points for sports performance and the infrastructure required for it.

**5. Playground**

- i) Playground should be made even and clean or else it might hurt the student doing sprotsactiving in the playground.
- ii) In a country with a high level of population it is difficult to have playgrounds in every 1 km radius but wherever possible an attempt should be made.
- iii) For students to be able to use stadiums, a particular time must be allotted to them through an MoU with colleges.

**6. Funds for Sports**

- i) Budget for sports should be increased.
- ii) Reduce administrative procedures and paperwork for the Departemnt of Sports to claim for reimbursement of expenses or take advance.

**7. Starting Age**

Government should make rules to ensure that each and every school student is involved in at least one type of sport. He may excel or not but those interested could definitely know their liking or hidden talent in a particular sport. All should be given an opportunity to explore sports from very young age.

**8. Recognition**

- i) Give the winners or matches and tournaments the required recognition at important functions of the college – Prize Distribution or College Day or celebrate a special Sports Day function. This will act as a motivating factor.
- ii) The matches and tournaments played and won could be recorded on mobile phones and circulated among the students and teachers.

**9. Cooperation from Management, Teaching Faculty and Physical Education Director**

If the management shows keen interest in encouraging sports, there is definitely going to be a big imporvemnt in the level of cooperation from and among teaching faculty and physical education director. All problems shall be then taken care of. Thus, it is for trustees of the college to take the initiative. It must be realized that winning of college in sports activities goes a long way in brining name and fame to the college, in addition to academic performance.

**10. Stringent Rules**

- i) Relaxation of rules for sports students should be strictly adhered to. For this, teachers should be made aware of the rules and regulations. Since most of the teachers are not



from the sports background, they fail to understand the importance of sports.

- ii) Rules and regulations have to be re-written for sports students and made more need-based. It must be college's decision to decide how much of a leeway to give a sports student.

### **11. Coping with Education and Sports**

- i) Teachers should provide notes to students or could take up extra lectures. But even the sports student should show keen interest for it.
- ii) Credits mechanism –Symbiosis International University (SIU), Pune has introduced the mechanism of credits for sports. They believe that credits for sports instead of marks for sports encourage the students. For every 15 hours of sports activity, be it participating or organizing events, the students can avail of one credit. Three credits are reserved for sports in a year per student. Giving marks freely will be like comparing physical activity to mental activity. Students should be awarded for what they have worked. Recognition for the talent is important, and the academic institute should ensure that there are no repercussions on the future of the students, is the objective behind this initiative. This is important to build a sports culture. This system could be applied by other universities and colleges too.

### **12. Admission through Sports Quota**

- i) Share of popular sports like cricket, football, hockey, basketball or athletics too should be given the same share as to other sports like Ice Hockey, Taekwondo and Roller Skating.
- ii) While giving the sports quota it must be realized that it is easy to grab prizes at national level in ice-hockey, roller-skating, etc. than in popular sports as competition is more in the latter. The number of times he has played the popular game could be considered than the level at which he has played.
- iii) Favoritism and nepotism towards children of officers and politicians should be avoided. When fair game has to be played by sports students, fair rules have to be followed.

### **13. Lethargy of students**

It must be made mandatory for a student getting admission through sports quota to pursue games after admission too or a huge fine be imposed on him. Delhi University has made it mandatory for all students given admission under the sports quota to sign a judicial stamp paper stating they would continue with their respective sports and also be available for all college and university sporting events.

### **14. Filling Records**

It must be mandatory for Physical Education Director that while showing number of sports students in the roster, a record to games he played, won and also his practice time in college at least. This will keep a control on redundant names.

### **Conclusion**

It cannot be denied that making establishment of Department of Sports in college mandatory is with a good intention which is defeated due to problems of funding, disinterest of management, improper rules, lack of cooperation from teachers, interference of parents, inadequate infrastructure, poor playgrounds, lack of recognition and encouragement to sports students, misuse of sports quota, etc.

One doesn't need the judicial system to fix our youth sports problems. Every party-management, teaching and non-teaching staff, physical education director, students and parents involved can shoulder some blame. The need is for counselling of parents and teachers, cooperation amongst the teachers, management and physical education personnel, encouragement, recognition of sports students and publicity of sports, leniency in rules and

regulations relating to attendance, use of credits mechanism, adequate infrastructure and latest sports equipment and material, proper use of sports quota, etc.

What is required is rethink, reframe the procedures and take initiatives to change the way sports in colleges is functioning, seen and judged. Sport in India is will reach its peak only after the combined efforts of government, college management and administration, teaching staff, physical education director, sports students and parents and society in general by changing its attitude towards sports.

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## **Yoga as a Holistic Science for Spiritual Development of Individuals**

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The world has made man highly sensitive. There is a threat to an individual's well being both physically as well as mentally. Inner peace and contentment are lost resulting in adjustment problems (inter and intrapersonal), psychosomatic disorders, other illnesses and increased crime rate in society. Our society has become too stressful, violent and fast paced. How can we hope to meet National Curriculum demands and achieve its learning objectives when the pupils are equally stressed, agitated, aggressive, overly emotional and mentally exhausted? These can be rooted through yogic philosophy and its practices. Through personal experiences, Yoga acharyas were able to guide sincere aspirants along the correct path, removing any confusion misunderstanding and excessive intellectual contemplation and yoga emphasizes qualitative development which is probably the most neglected domain of contemporary urban society. Yoga education is a holistic science. It is a conscious and systematic process for the complete physical, mental, emotional and spiritual development of men.

Yoga education is a holistic science. It is a conscious and systematic process for the complete physical, mental, emotional and spiritual development of men. Various studies have shown the positive effects of yoga on physical, psychological, intellectual and social aspects of individual life. Yoga is an ancient ethnic practice - it originated in India many thousands of years ago -designed to develop a union of body, mind, and spirit. Yoga is a complete science of life that confers balance upon the practitioner. In recent years, plenty of research has been carried out on therapeutic the effects of Yoga. In fact, studies have shown that the practice of Yoga contributes enormously to one's physiological and psychological growth. Yoga normalizes and regulates electrical and chemical impulses within the brain, heart rhythm, blood pressure, as well as the skin's capacity for resistance besides many other internal functions of the body. On the psychological level, Yoga helps curtail anxiety, depression, irritability and moodiness. The continued practice of Yoga is known to enhance one's comprehensive ability, memory, heal old traumas, improve emotional stability and render joy and happiness to the practitioner. All said and done, the practice of Yoga leads to overall vitality and rejuvenation.

This, in fact, is just the tip of the iceberg; most of the abovementioned benefits are secondary to the original intents. Primarily, Yoga helps melt down the ego and, subsequently, the practitioner attains union one's Individual consciousness and the cosmic consciousness. The ancient Yogis (seers and sages) viewed the gross, physical body as a vehicle, the mind as its driver and only the soul as the True Self. Here, action, emotion and intelligence are considered the three forces that draw the vehicle.

These seers and sages put together exclusive teachings and techniques to unite the body, mind and soul into one harmonious whole through the balance of action, emotion and intelligence. Personality is a central theme of the disciplines of Yoga and psychology. Personality refers to persistent patterns of a person's behavior. It tells about the unique characteristics of a person. You are aware that in modern psychology, personality has been



'In relation to happiness, misery, virtue and vice, by cultivating the attitude of friendliness, compassion, gladness and indifference respectively, the mind becomes purified and peaceful'.

The above aphorism (sūtra) shows us the way to sublimate our negative emotions into positive ones. In day-to-day life, a person may have negative attitudes. She/he may be preparing us to behave in a particular way. They are accompanied by emotions and feelings. For instance, a student may be jealous of the students who got better grades. A person may be indifferent towards the suffering of others. We may become indifferent to good people and get angry with vicious people. All these behaviours show the negative attitude.

Patañjali stressed that we should have positive attitudes. Thus, jealousy towards happy people can be replaced by friendliness, and indifference and disgust for miserable people can be replaced by compassion. Indifference and jealousy towards virtuous people can be replaced by gladness and the disgust towards vicious people can be replaced by indifference. These positive bhāvas bring happiness within and also help in our social, emotional and spiritual development. Nevertheless, Yoga puts general emphasis on adopting positive attitude in life which can be developed with Vairāgya bhāva (detachment), Samatva bhāva (equanimity), Sākṣībhāva (witnessing as an observer), Niḥkāma bhāva (action without expectations), Kartavya bhāva (dutifulness), Egolessness and Śraddhā (faith). If a person wants not to be emotionally involved in a given task or situation, then she/he should work with faith and sense of duty. This would help her/him in developing a right perspective and help her/him in taking right decisions. This would also protect the person from emotional turmoil and also help in her/his social and spiritual development.

Yoga also talks of a human being in terms of her/his 'guṇas' namely sattva guṇa, rajas guṇas and tamas guṇas. Sāttvika personality is dominated by sāttvika guṇas like peace, purity and self-control. Rajas personality is dominated by the passions toward the actions and such a person is more attached to the fruits of his/her action. Tāmasika personality has got the main characteristic of inertia. However, in real life we find that a person would be a mix of sāttvika, rājasika and tāmasika guṇas in different proportions. An integrated or holistic personality requires a balanced development of all the dimensions of one's personality, namely, physical, intellectual, emotional, social, and spiritual dimensions.

Aṣṭāṅga Yoga was enunciated basically for mental and spiritual development, but it is also very relevant to attain holistic personality. Aṣṭāṅga Yoga, if adopted properly would help in physical, intellectual, emotional, social and spiritual development of a person. It consists of eight components; therefore, it is known as Aṣṭāṅga-Yoga (eight-limbed Yoga). The components/limbs mentioned in Aṣṭāṅga Yoga are: Yama, Niyama, Āsana, Prāṇāyāma, Pratyāhāra, Dhāraṇā, Dhyāna and Samādhi. These eight components have been further divided into two parts known as Bahiraṅga Yoga and Antaraṅga Yoga. Bahiraṅga Yoga consists of Yama, Niyama, Āsana, Prāṇāyāma and Pratyāhāra; while Antaraṅga Yoga consists of last three limbs – Dhāraṇā, Dhyāna and Samādhi.

Limbs of Aṣṭāṅga Yoga

- Yama: Ahiṁsā-satya-asteya-brahmacarya-aparigrahā-yamā P.Y.S. 2.30

Yama can be interpreted as self-restraints or the social code of conduct, which are to be followed in social life. Ahiṁsā (non-violence), Satya (truthfulness), Asteya (non-stealing), Brahmacharya (continence) and aparigraha (non-acquisitiveness) are yamas. Yamas are very

important. They tell us how we should behave in our social life. Ahiṣā means not harming others in any manner – through intention, speech or action. Truthfulness means we should be truthful and honest in our thoughts and actions. Asteya means non-stealing which is opposite to stealing. Asteya includes not taking or using the things belonging to others without their permission. Brahmacharya means exercising control in our sexual behaviour. Aparigraha means that we should not accumulate or hoard things property/wealth etc, which are not required. If we analyse them in depth, we would find that the behaviour guided by these principles will help to control our emotions, promote our relations and would also lead towards spiritual path.

We all know that social problems like murders, corruption, theft, polygamy, rape etc. are caused by the violent tendencies, dishonesty, untruthfulness, greed, hoarding, stealing and sexual urges. If we exercise control on these, the society will be peaceful and our interpersonal relations will be good. In addition to this, yamas also bring emotional balance and mental peace and lead us to the spiritual journey. Thus, with the help of Yama, emotional, social and spiritual development is facilitated.

- Niyama: Śauca-santoṣa-tapaḥ-svādhyāya-īśvara-praṇidhānāni-niyamāḥ P.Y.S. 2.32

Five niyamas are: Śauca (purity cleanliness), Santoṣa (contentment), Tapaḥ (austerity to discipline body mind), Svādhyāya (study of self by introspection and studying scriptures), and Īśvara-praṇidhāna (surrender to God). Niyama can be viewed as observances or code of conduct in personal life. The niyama of śauca implies that our body and our surroundings should be clean and mind should be pure. Santoṣa means that we should be contented with what we have in life and should not hanker after more and more; such cravings would lead to frustrations in life. The niyama of tapaḥ implies that we should discipline our body and mind by developing a habit of austerity; it will protect us from unnecessary extravagance for satisfying never-ending desires. Svādhyāya means the study of self and study of scriptures. It can be promoted by introspection and self-analysis. By svādhyāya we can develop an insight into our behaviour, to know about our weaknesses and strengths. This will guide our behaviour and protect us from our wrong doings. Practising niyama in day-to-day life promotes emotional stability, knowledge about the 'self' and a sense of right and wrong; thus facilitating emotional, intellectual and spiritual development of oneself.

Yama and niyama put together, thus, help to promote social, emotional, intellectual and spiritual development of an individual.

- Āsana: Sthira-sukham-āsanam P.Y.S. 2.46

Patañjali defines āsana as the steady and comfortable position (of the body). He does not talk about any specific āsanās. It is the Hatha Yoga tradition in which various body-postures have been suggested by the proponents of Hatha Yoga. Āsana helps to regulate the prāṇika flow in the body facilitating the functioning of various systems and organs of the body. Thus, āsanās help to promote physical development. Alongside, they also help regulation of emotions by working upon autonomic nervous system.

- Prāṇāyāma: Tasmin sati śvāsa-praśvāsayor-gatavicchedaḥ prāṇāyāmaḥ P.Y.S.2.49

Prāṅāyāma means control and regulation of breathing process. Practising Prāṅāyāma helps in physical development by improving capacity and functioning of lungs. They help in emotional development by activating the parasympathetic system of the CNS (Central Nervous System). The activation of parasympathetic system makes a person relaxed. Regular practice of prāṅāyāma makes a person energetic and relaxed. Thus prāṅāyāma works not only at physical level, it also helps in emotional management. Our negative emotions like anger can be effectively managed by prāṅāyāma.

- Pratyāhāra: Sva-viṅaya-asamprayoge citta-svarūpānukāra ivendriyāṅāṅ  
pratyāhāraṅ P.Y.S. 2.54

Patañjali, in the above sūtra, defines pratyāhāra as withdrawal of senses from their respective objects and experiences. It is related to control of senses. Actually, our senses play a crucial role in our mental states and actions. We receive various inputs from our senses (seeing, hearing, smelling, touching and tasting). These inputs affect our mind and may make it agitated. For example, if we see a movie full of violence, our mind gets affected accordingly. As a result, for the whole day we may not be able to focus on our work as the violent scenes of the movie are disturbing us again and again. This kind of situation would not have aroused, had we not seen that violent movie. So in order to control the mind, sensations are to be withdrawn. This withdrawal (pratyāhāra) protects us from emotional turbulences which are caused by continuous worldly inputs. However, it is not always possible to stop the inputs. In that case, pratyāhāra can be exercised by taking right inputs from our senses. The right selection of our inputs would protect our mind from undesirable states. Thus, pratyāhāra helps in emotional management.

Pratyāhāra can be done with the help of self-analysis and introspection. During introspection and self-analysis, we focus our attention within. It helps to make an inward journey. It makes the person aware of her/his strengths and weaknesses and leads her/him towards self-improvement. Thus, pratyāhāra helps a person in her/his emotional, intellectual and spiritual development.

- Dhāraṅā: Deśabandhas-cittasya dhāraṅā P.Y.S. 3.1

Dhāraṅā means fixing up of mind on a particular object as Patañjali says in the above sūtra. Dhāraṅā helps to improve concentration and stabilizes the mind. Thus, it helps in emotional, intellectual and spiritual development.

- Dhyāna: Tatra pratyayaikatānatā dhyānam P.Y.S. 3.2

Dhyāna means an unbroken or uninterrupted flow of citta towards the object of contemplation. In simple words, it is the prolonged dhāraṅā. The practice of dhyāna promotes the concentration and may lead towards emotional, intellectual and spiritual development in a person.

- Samādhi: Tadevārthamātra-nirbhāsam svarūpa-sūnyamiva samādhiṅ P.Y.S. 3.3

Samādhi is that state of dhyāna in which the subject-object distinction is submerged. It

is the final stage of Yoga. Samādhi leads to the state of self-realization. In this state, the object of dhyāna becomes more vivid and the awareness about one's own existence disappears. In this state, all emotions go away, and the individual is led towards inner peace, happiness and complete bliss. It is an increased state of concentration. In this state, mind appears as if not functioning but it is not blank. This state is characterised by the increased level of consciousness about the 'self'. 'Samādhi', therefore, would certainly contribute to emotional, intellectual and spiritual development of one's personality.

Dhāraṇā, dhāyana and samādhi, together called 'Sāyama' are beneficial for one's intellectual, emotional and spiritual development.

Yoga and Yogic practices have a great potential to develop a holistic personality in an individual human being. Yogic attitudes protect a person from unwanted negativities and help in proper development of emotional, social and spiritual dimensions of his/her personality. It boosts emotional stability. It also develops a sense of well being and calm. Spiritual development is comprehensive awareness of inter-dependence between body, mind, and soul; such awareness encourages one's to live in "oneness." It helps to discover one's True Self. It also sets oneself free from the illusions and preconceptions. It also establishes union between Individual Consciousness and the cosmic consciousness. Thus, Yoga works as science for holistic development of individual being.

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## Information Technology and Sports Science

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### Abstract

With the economic development and scientific technological progress, information technology raised rapidly, and become the dominant factor of socioeconomic development. Information technology applied in nearly all industries, in the field of sport science, information technology promote the development of sports science, and sports science development cannot be separated from the information technologies; This study analyze the application of information technology in the field of sport science, explain the importance of information technology application to develop sports science, proposed creating a unique means of information technology in sports to make sports science have a better development.

**Keywords:** sports, physical education, information technology, sports science.

### Introduction

In the same way that the printing press heralded the start of the Renaissance and the study of physics helped to foster the Industrial Revolution, technological advances in computation and communication in the 20th century have set the stage for the "Age of Information." Yet, scientific and technological changes are accelerating so fast they are outpacing existing institutions such as schools, media, and industry, and government—structures originally designed for the needs of the Industrial Age.

In the emerging information age, sports research and practice development model should meet the times, to make sport toward a "digital sports" direction. Information technology demonstrate a concise form to the regular pattern of complex sports, And can provide strong support to build a digital model of sports. In information technology-driven era, anyone who first mastered the new methods and theory can stand out from the competition. Similarly, in sports, who first mastered the ways to develop sport and cultural resources, the latest scientific training methods and new technology to increase the level of sports can be an invincible position in internal field of sports.

### Information Technology Applications in the Field of Sports

Information technology has changed the human way of life, and similarly, sports information becomes a necessary requirement to change the sports culture naturally. Information technology use in sport is undergoing tremendous changes from simple application to the depth dependence. With the rapid development of internet, informatization of economic and social has become a global trend. We can combine the experience and lessons in development, identify developing problems, and strengthen all aspects of intelligent building sports venues, so as to promote the continuous development of our sport, turning China into a sports power. Information technology will become a new impetus to the field of sports.

In Sports Stadiums Modern Sports have been closely related to information technology. Information technology has injected vitality into the development of sports, while sports provide a platform for the development of information technology. Modern digital information technology has been widely used in sports stadiums, and has become an

important support for the development of force. With China's information technology applications in the stadium design and management aspects of a late start, there are still many deficiencies to be improved, according to foreign intelligence stadium construction and development experience and our own problems, the following future trends.

Physical fitness and entertainment venues use the information technology to form physical products technology products, mainly in the following areas:-

Fitness and entertainment venues in Fitness Club Like treadmills, and the other fitness equipments, these are the most common sports intelligence products in fitness and entertainment venues. At the same time, the fashionable online campaign of sports begun to attract wide attention, which operate through the computer, database, network technology, carrying out fitness guidance for remote participants. Online sports platform of these fashionable sports and fitness programs meets the needs of different consumers, also providing online guidance.

#### **Application of intelligent management systems-**

We can Use computer software programming and multimedia information technology to achieve the automation of fitness and recreation sports management, and establish health management systems and office automation systems.

Money is always an issue for today's sport management professional. Databases are particularly useful for tracking donors or potential donors whether and they contribute money or in-kind services. In addition to the expected biographic information will be other keys to successful fund raising such as the source of their motivation or affiliation and the frequency with which they give.

Databases are also essential for other types of administrative information. Examples include accounting and business records, employee files, equipment inventories or facility maintenance records. The organizational marketing information system (MIS) is also typically a database program in which are tracked information such as season ticket sales, gate receipts or merchandising sales. It is particularly useful if different software applications interface with each other seamlessly which is to say, "do the programs talk to each other?" Can, for example, the data entered in the MIS resulting from ticket sales be imported directly to the accounting program?

To be effective, databases can and should be regularly updated to record changes. Bear in mind that the passage of time presents a more comprehensive picture of most activities and the ability to record change and make sense of it is essential for long term survival. Further, there is nothing so constant as change, particularly in sports organizations, and a well thought out and maintained database is a great way to develop and maintain an "institutional memory"; a record of those changes and the impact they have had on the organization.

There are numerous software packages that are designed for fitness and nutrition professionals to organize data and produce reports, ideal for visitors to this site. Here are a couple of packages that come recommended by Topend Sports.

- Team Beep Test — the most versatile and useful software for conducting and recording results of the bleep / beep test, with results recorded directly onto your computer.
- Body Byte — a universal standalone computer software program specially developed to comprehensively organize and manage all the information associated with nutrition, training and fitness.

**E-commerce-**

It is also appropriate to briefly examine how the web will change the sale and distribution of sporting goods which is central to running sport programs. The relative cost for sports equipment can be an issue for the profession, particularly in terms of trying to broaden the appeal of sport to the greatest number of participants. E-commerce through the Internet holds the potential for containing costs for sports equipment as illustrated by the following example.

In the traditional model of manufacture and distribution through a sporting goods store, it is not uncommon for a tennis racquet which cost \$40 to manufacture to be marked up as much as 300 to 400% to as much as \$160 as it moves through various wholesalers and retailers in the distribution chain to a tennis player. With an e-commerce arrangement whereby the manufacturer can reach the player directly without going through middlemen, the mark-up in distribution can be reduced to as little as 50% of the traditional retail price resulting in a sale price to the end user of about \$80. Very simply, the more middle men in a distribution chain, the greater the benefit derived to the end user from using e-commerce distribution.

With the fast growing advances of the technological field in sports comes challenges, like finding trained professionals who know how to implement sport sciences with professional sport organizations in a seamless way, or to train members of the training/coaching staff to be able to take full advantage of the benefits that technology is bringing to sports. An example is of what benefits advanced sleep and rest data can bring to a team. But if there is no one able to create a program to optimize athletes' rest, recovery and sleep quality will it be valuable? Another important fact to highlight is that some technologies provide objective data and measures that need processing, analysis of the data according to each athlete's characteristics, and statistical analysis in order for it to make sense and to produce positive results for the teams. On the other hand, some of the technology that is being made available can already make its own calculations and algorithmic analysis, providing an outcome that also needs to be looked at with caution, as in some instances these technologies provide estimates and approximations, instead of exact measurements.

Even though there are some obstacles, the future of sport and technology is bright – there is potential to see a great deal of improvement in team performance enhancement and health maintenance coming from sport and performance technologies, especially with programs that make the adequate use of, and correct adaptation of the technology that is currently available. Finally, there are plenty of reasons to be excited for and to be looking forward to the future of sport performance technologies, as new conforming wireless technologies are being created and improved, and more efforts are being made in preparing knowledgeable professionals that will make the best use of them

**Hawk-Eye Technology**

Hawk-eye is the name of a computer and camera system which traces a ball's trajectory. It is being used in international cricket and tennis, and many other sports are also looking at making use of this technology. The system is also being trialled in soccer as part of the goal line assessment. The Premier League of Football in the UK has agreed to the introduction of goal-line sensors after being given approval by football's rule-makers. The system being developed by the UK company Hawk-Eye, would give a definitive decision on whether the ball had crossed the line. The Hawk Eye uses a camera taking 600 frames a second on the goal-line, with the information is analyzed by computer and sent to the referee's

headset or a device on his wrist. In 2015, Hawkeye technology was also used by rugby officials at the 2015 Rugby World Cup, to improve decision-making by the television match official (TMO) and also assist with player safety. In this case it is enhanced video review, rather than the ball tracking technology as used in other sports.

### **Sport Specific**

- Tennis - it is now standard at the major tennis tournaments for a line review system to be in place, with players given power to review contentious line calls. It is powered by the Hawk-Eye ball tracking system. See more about Hawk Eye for Tennis
- Soccer / Football - Soccer is looking at joining the 21st century, looking at various technologies for the goal line to determine if the pass passes over the line or not. See more about Football/Soccer Technology
- Basketball - the NBA uses replay vision to review 'last touch' decisions in the final two minutes of games, and also to determine whether players release the ball before the shot clock expires.
- Cricket - technology in cricket has been driven by advances in the TV coverage. Things that were once extra information provided by the TV networks are now being incorporated into the decision referral system (DRS), such as hawk-eye and hot spot, and maybe even the old favorite snicko. See more about Cricket Technology.
- Aussie Rules Football - umpire review system has also been implemented in AFL, with an off field umpire in certain circumstances adjudicating on whether the ball passes over the goal line or is touched, using video evidence via multiple camera angles. See more about Technology in AFL.
- Baseball - In 2014 a challenge system was put in place for the MLB to use replays to challenge certain umpiring decisions. See more about Technology in Baseball.
- Rugby Union - In 2015, Hawkeye technology was used by rugby officials at the 2015 Rugby World Cup. The video review technology with synchronised camera views was used to improve decision-making by the television match official (TMO) and also used by medical staff to assist with player safety by identifying possible concussion instances and behind play incidents.
- Rugby League - The NRL was an early implementer of using the video referee to help adjudicate questionable tries.

### **Conclusion**

With the rapid development of internet, informatization of economic and social has become a global trend. Today's information technology has greatly changed the social life, sports and electronic information naturally become the inevitable demand for sports, and especially the more rapid development of sports in our country today the more focus of attention. A wide range of applications of Information technology in sports venues have made great contributions for our sports and mass sports development. It is precisely the modern information technology support makes the development of various service-oriented sports products possible, such as fitness equipment, scoring equipment, related software, sports management, sports and other electronic databases, which have contributed to China's sports venues, the development of intelligent information. We can combine the experience and lessons in development, identify developing problems, and strengthen all aspects of intelligent building sports venues, so as to promote the continuous development of our sport, turning China into a sports power.

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## **Sports Tourism & Current Scenario of Sports Tourism in India**

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### **Abstract:**

Future of sports tourism and adventure sports in India is very bright. Although Sports Tourism is a niche segment in India, it is growing rapidly, with a large number of entrepreneurs willing to invest in it. While sports tourism has gained popularity in recent years, one must stop and consider what it really is and why it has become so popular among the sports fan crowds. Not only has it managed to steadily increase each year, but it has also taken a spot among the top reasons for travelling and vacationing. It appears as though more and more people are using their well-earned vacations to see their favourite players in action. This paper will provide detail information of Sports tourism, its classification and its benefits as well as Current Scenario of Sports Tourism in India.

**Key words:** Sport Tourism, Sport Events, Sport Industry.

### **Introduction:**

Sport tourism is a new concept in the world having the most growth in tourism industry. Many countries enjoy an appropriate status with respect to sport tourism and, accordingly, contribute directly to their nation's economic prosperity.

One of the fastest-growing areas contributing to these staggering statistics is sport tourism. Although sport tourism is a relatively new concept in terms of contemporary vernacular, its scope of activity is far from a recent phenomenon. The notion of people travelling to participate and watch sport dates back to the ancient Olympic Games, and the practice of stimulating tourism through sport has existed for over a century. Within the past five years, however, sport and tourism professionals have begun to realize the significant potential of sport tourism and are aggressively pursuing this market niche.

### **What is Sports Tourism?**

Sports Tourism is defined as a specific travel outside of the usual environment for either passive or active involvement in competitive sport where sport is the prime motivational reason for travel and the touristic or leisure element may act to reinforce the overall experience. Another definition worth noting explains sport tourism as a combination of sports activities and travel.

### **Definition of Sport-Event Tourism:**

Sport-Event Tourism is similar to what we call pilgrimage in India. Thousands of people in India travel long distances for visiting famous temples, churches, and mosques in our country. Sport-Event tourism is similar to this concept but with a slight difference. In Sport-Event Tourism the host city has to draw on the interest of people who like to participate in Sport-Events as Organizers, participants, or spectators and build up a continuous long lasting tourism demand and supply system.

### **Classification of Sports Tourism:**

One of the theories suggested that the sports tourism is defined as Hard Sports Tourism and Soft Sports Tourism while another theory suggested that there are three types of

sports tourism which includes Sports Event Tourism, Celebrity and Nostalgia Sport Tourism, Active Sport Tourism, Passive Sports Tourism.

**Benefits of Sport Tourism:**

- Sports are an investment in the tourism industry.
- Creates economic growth through filled hotels, restaurants and retail establishments.
- Creates exposure and enhances a positive image for your community.
- Creates new product, a new tourism destination.
- Maximizes facility use in your community.
- Builds community relationships and strengthens corporate support.
- Creates youth opportunity/entertainment.
- Attract high-yield visitors, especially repeaters.
- Generate favourable image for the destination.
- Develop new infrastructure.
- Use the media to extend the normal communications reach.
- Generate increased rate of tourism growth or a higher demand plateau.
- Improve the organizational, marketing, and bidding capability of the community.
- Secure a financial legacy for management of new sport facilities.
- Increase community support for sport and sport-events.
- stimulate the local economy
- enhance the area's image
- provide outstanding entertainment and in some instances, the opportunity to participate
- contribute to the quality of life

**Economic Benefits of Sports Tourism:**

- Revenue generation from the increased demand for hotel accommodation;
- Transportation Services;
- Food and Beverage;
- Entertainment;
- Television and Media Coverage.

**Social Benefits of Sports Tourism Events:**

- Increase in the level of local interest in the activity associated with the event
- Pleasure in experiencing event
- Influence on community pride and increased involvement of individuals in community activities
- The improvement of regional identity that is seen as being closely related to urban renewal
- Entertainment and social opportunities for local residents
- Volunteerism – improve local social support networks
- Strengthen cultural values and traditions
- Build national identity

**Potential of India in Sports Tourism:**

As quoted by the World Tourism Organization, by the year 2020, it is expected that India will become the leader in the tourism industry in South Asia, with about 8.9 million arrivals. Of late the Indian tourism economy has been deemed as the second-most rapidly increasing tourism economy in the world, by World Travel and Tourism Council. It also objectively analyses the current scenario and future prospects of the Indian tourism industry, focusing on different parameters of the industry such as: inbound and outbound tourism and

expenditure by inbound tourists. It helps analyse the opportunities and factors, which are crucial to the success of the tourism industry in India.

**India offers a wide range of sports for tourists:**

- Trekking and Skiing in the Himalayas
- White Water rafting on the rivers such as Ganges and Beas
- Camel and Jeep safaris in the deserts of Rajasthan
- Paragliding in Himachal Pradesh
- Water-sports in Goa
- Scuba diving in Andaman and Lakshadweep islands
- Lakshadweep islands also offer excellent wind surfing
- Snorkelling in the crystal clear waters of the lagoons.

**Conclusion:**

Sport tourism is a relatively new and ever increasing industry in the tourism industry focusing on the target planning of developing countries. It is also believed that sport tourism shall restructure the rural and urban communities from social and economic perspectives. Seemingly, sport tourism shall improve the individuals' life quality through tourist attraction and results in the economic welfare of the local communities. Today, sport and tourism are concerned with the important economic activities in the developed and developing countries.

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## Effect of Selected Yogic Asana on Long Jump Performance

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### Abstract

Sport and Yoga in the current era are two interdependent disciplines. In sport, there is a lot of importance physical exercise. Today, professional sport has become an interesting aspect of physical exercise including yoga practices. Yoga and sports are physical activities but so different that they could be considered as an opposite alternative or a complement as well. Every sport and game involves vigorous movements such as running, jumping, throwing, stretching etc. The practice of yoga can help the sports person not only during his competitive professional life, but also in his personal life after his withdrawal from the sporting contest. Yoga is “Gentle” form of exercise and Sports is highly selective, competitive and performance oriented form which needs agility, flexibility, stamina and strength. The present research paper is based on how the combination of Yoga and Sports can lead human lives to the peacefulness and serenity.

The present study aims to determine the status of long jump performance of athletes in North Maharashtra University of Jalgaon. Total sample selected in the subjects’ age group was ranged from 18 to 25 Years. The sample consists of 30 subjects were divided randomly into two groups viz; Group –A (Yoga training;  $n_1 = 15$ ) and Group – B (Control;  $n_2 = 15$ ) with equal in numbers. The experimental group was given training in selected yogasana for eight weeks, whereas the control group was not given any specific training during experimental period. After done of Scoring data were treated as a mean, SD, T test. After the data interpretation significant difference in experimental group is better than control group.

**Key word:** - Yoga, Sports, Long Jump, Physical Exercise

### Introduction

Long jump is an elegant, prestigious and traditional sport which reflects the success qualities that are important to contemporary people who seek a challenge to both body and mind through a competitive blend of patience and determination, discipline and competitiveness. In fact, long jump is also referred to as physical chess by many proponents. While there may be a relevant comparison here, the physical aspect of long jump is underestimated more often than not in this analogy. Long jump is a demands physical power, agility and flexibility. Professional jumpers spend a lot of time being physically fit. The training routine involves exercises, weight training and stretches. Individually, jumpers do their regular runs, weight training and follow various other exercise routines while they should ideally be following a more specific routine to improve their jumping skills.

With long jumpers needs to none his basic responses, have a certain level of physical fitness and mental strength. The main muscles that allow balance, agility and coordination are the ones to be focused on in a sport such as long jump. Long jump has many features and skills; long jumper should have to be distinguished from other sports because it requires a great efforts in specific time with ability to do his best continually at uneven periods. Therefore, there is need to develop special training program for long jumpers to attain the basic physical fitness and concentration which is a key for success in jumping competitions.

In this context, it was thought to introduce yogic exercise program as a training part for jumpers, because numerous studies demonstrated that yoga has many physiological psychological benefits. In fact, Yoga is a significant part of worldly philosophy. It is an ancient Indian system which helps to keep person physically and mentally fit. It has been scientifically proved that yoga helps to improve concentration which is a key factor for achieving success in competitions. In this investigation, therefore, an attempt has been made to see the efficacy of yoga training on long jump.

### **Objectives of the study**

In the light of the above statement, the following are the objectives of the study:

- ❖ To prepare a suitable yoga training program keeping the view enhances long jump performance.
- ❖ To evaluate the efficacy of yoga training programme on long jump performance.

### **Hypotheses**

H<sub>1</sub>: The Yoga training programme would improve long jump performance.

### **Methodology**

The present study was undertaken with a view to evaluate the Effect of Yoga on long jump performance. To achieve the purpose of this study out of one hundred fifty players (n= 120), Sixty athletes (n = 30) from North Maharashtra University, Jalgaon, affiliated colleges (Jalgaon zone) were selected randomly as sample by employing Fishers Random Table. The subjects' age group was ranged from 18 to 25 Years.

### **Experimental Design**

A completely randomized group design (Rothstein, 1985) of two groups of equal numbers was adopted for this study. Making use of table random numbers all the 30 subjects were divided randomly into two groups viz; Group –A (Yoga training ; n<sub>1</sub> = 15 ) and Group – B (Control; n<sub>2</sub> = 15) with equal in numbers. The design of the experiment has been planned in three phases.

- ❖ Phase – I: Pretest
- ❖ Phase- II: Training or Treatment
- ❖ Phase- III: post test

### **Pre Test (Phase – I)**

As the purpose of this study was to measure the performance of long jump athlete, tests were administered for this purpose. Both the experimental and control groups were exposed to pre-test.

### **Training (Yoga Practices – Phase II)**

After the pre testing was over, all the subject of experimental group underwent a eight weeks training of yoga practices along with their as usual regular exercise and long jump practice daily for one hours except Sunday and holidays.

The total 30 subjects were divided in to two groups” Group A Experimental and Group B- Control. Both the groups participated in their regular training schedule. Additionally, the subjects of Group A underwent special training programme of yoga practice. The subjects of Group B i.e. Control group were engaged in training as per their schedule but not allowed to participate in yoga programme. The controlled subjects, altogether did not receive the above mentioned yoga training, were kept busy with some recreational activities for one hours daily in the morning except Sunday and holidays during the total period of experiment.

**Post Test (Phase III)**

Finally, when the treatment or training period of eight weeks was over the post test of long jump performance assessed for both the group. A completely randomized group design (Rothstein, 1985) for two groups of equal numbers was adopted for this study. The scores in each criterion measure were taken before and after the experimental period of eight weeks.

**Variable Selected for the Study**

To obtain pertinent information about yoga for improving flexibility and long jump performance ability, the following dependent and independent variables were selected. Before and after experiment following variables on all the subjects were assessed with the help of some test items:

Variables	Tools / Method Used
Long jump Performance	Meters/ cm

**Method of Designing Yoga Training**

Yoga intervention was prepared with some of the asanas, pranayama and meditation, which are to maintain one's health, and develop long jump performance. All this contents were selected on the basis of various reports on yoga and sports and also based on suggestions from the experts. However, following yoga training was imparted to the experimental group for total of eight weeks.

Sr. No.	Name of the yoga practice	Sr. No.	Name of the yoga practice
01	Shavasana	10	Bakasana
02	Naukasana	11	Trikonasana
03	Sarvangasana	12	vrikshasana
04	Chakrasana	13	Utkatasana
05	Bhujangasana	14	Ujjai Pranayama
06	Dhanurasana	15	Suryavedan Pranayama
07	Poschimattanasana	16	Anulom Vilom
08	Vajrasana	17	Trataka
09	Shalbhhasana	18	Om Chanting

**Statistical treatment of data:**

The data collected were analysed and the summaries of the analyses were presented in tables to highlight the findings.

**Table No. 01:** Control group Long jump performance shows the mean, SD., and 't' value

	N	Mean	SD	't'	S/NS
Pre test	15	5.43	0.134	1.54	NS
Post test	15	5.58	0.154		

**Interpretation** – The obtained 't' value is less than the table 't' value at 0.05 level of significance, that means it is not significant.

**Table No. 02:** Experimental group Long jump performance shows the mean, SD., and 't' value

	N	Mean	SD	't'	S/NS
Pre test	15	5.40	0.120	2.61	S
Post test	15	6.14	0.122		

**Interpretation** – The obtained 't' value is greater than the table 't' value at 0.05 level of significance, that means it is significant, therefore, the hypothesis is accepted.

**CONCLUSION**

On the basis of the results, the present investigation concludes the followings:

- Yoga programme contributes to improve long jump performance.
- This investigation developed a “yoga training programme” that could be applicable for the male long jumpers athletes playing at college level competition. This study, in fact, adds a quantum of knowledge to the literature of physical education and sports especially for Indian male long jumper’s athletes. Yoga programme as developed in this study can be incorporated while imparting sports training to male players.

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## Study of Correlation between Performance and his Anthropometric Body Measurements of 400 m Hurdle of National Player

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### Abstract

The present study is focused on the Study of correlation of runners performance and their anthropometric body measurement in National 400 m Hurdle competition. For the study following anthropometric measurements Standing height, Setting height, Weight, Leg length, Hand length, Foot palm length, Quadriceps circumference, Calf circumference, B.M.I selected and their competition performance is considered for the study. Survey method was used for the study. Total 300 male players (age 18 - 25 years) are selected. Out of which 150 male players were selected from All India interuniversity Athletics competition as the sample of the study. To analyze and interpret the data Pearson product moment coefficient correlation was used. Hence, the researcher concludes that there was no significant relationship in Standing height, Setting height, Weight, Hand length, Quadriceps circumference, Foot palm length, Calf circumference, B.M.I with the performance of 400 m hurdle player at 0.05 level of significance, but as there was significant relationship between the 400 m hurdle players performance and Leg length, at 0.05 level of significance.

**Key word:** 400 m hurdle, Performance, Anthropometrics measurement.

### 1. Introduction

Playing is natural tendency of every person. From child to adults, everybody loves to play. People chose their games depending upon the culture of their country, time, place, situation, culture, environment. Playing is an art as well as science. If you want to progress in any field then your base should be scientific. It is just like a tree, if the roots of the tree go deep inside the base, then the main branch of the tree becomes stable and strong. Physical activity is utmost important in the athletics. If we understand the physical activity scientifically, then it will be easy and helpful to learn new skills in sports and also to make changes in the learnt skills through scientific knowledge. In a scientific selection of the player, we must put aims in front of us while choosing them as well as for athletes to know ability of the individual for particular games, demand and need of skills of sports. We must not give chance to a wrong person or a person not possessing those qualities to be able to excel in that particular sport. The future of sport is in the dreams like an idea, training is also similar to dreams because there are so many things which are new for the science and which are yet to be discovered and invented by the scientists. Sport is an event where different situations happen and sometime it is very difficult to understand the reasons behind these performances done by the players. If we go into the depths then we understand muscles micro defect and chemical reaction cells also effects on skins of a player. The aim of training is to realize athletes their hidden potential and take out the best out of them and for that purpose science plays a vital role. In today's modern scientific world in every step of success scientific knowledge, experience, understanding and use of all these factors will help to achieve the

goals and objectives to excel more in the sports, games and physical education and reach to greater heights in the performance of the athletes.

In the present scenario all over the globe dominating countries in the sports are America, Russia, Jamaica, Germany and France. These countries have increased their sport performance so high with the help of science and technology. It happens just because of research and use of knowledge and a vision for success.

## 2. Research procedure

Researcher has used correlation research method from descriptive research method. The study has been conducted by choosing ten tools to measure their anthropometric measurements and 400M Hurdle performance tool to measure their performance and then used statistical tools for interpretation of the data.

**Table no. 2**

Sr.No	Test Name	Measurement
1	Standing height	Centimeter
2	Setting height	Centimeter
3	Weight	Kg
4	Leg length	Centimeter
5	Hand length	Centimeter
6	Foot palm length	Centimeter
7	Quadriceps circumference	Centimeter
8	Calf circumference	Centimeter
9	B.M.I	Kg
10	400m Hurdle performance	Sec

## 3. Population and sampling

Population for this study was 300 subjects amongst the 261 University of India and from 300 populations researcher has selected 150 players aged between 18yrs to 25yrs as a sample for case study.

## 4. Result

**Table no. 2**

Descriptive statistical analysis of performance and body measurement

Name	N	Mean(Sec)	Std.dev	Std.err	Mini	Max
400M H performance	150	54.74	2.4929	0.20155	50.51	62.99
Standing height	150	1.71	5.9140	0.00737	1.52	1.90
Setting height	150	87.36	3.67949	0.29650	77	98
Hand length	150	75	3.7218	0.29992	66	91
Leg length	150	98.29	4.3763	0.3526	84	110
Foot palm length	150	24.32	2.095	0.16193	19	28.00
Quadriceps Circumference	150	47.84	5.037	0.40595	23.00	57.00
Calf circumference	150	32.11	2.74	0.22147	25	45
Weight	150	66.38	7.00	0.56436	50	87
B.M.I	150	22.71	1.997	0.1609	18.07	28.96

The above mentioned statistical data interprets mean of 400m Hurdle performance is 54.74 and standard deviation is 2.4929 and standard error is 0.20155 Minimum performance is 50.51 sec. and maximum performance is 62.99 Sec. Mean of standing height of 400m Hurdle is 1.71, standard deviation is .5.9140 and standard error is .00737 minimum in standing height is 1.52 and maximum is 1.90. Mean of sitting height of 400m Hurdle is 87.36, standard deviation is 3.67949 and standard error is 0.29650 minimum in standing height is 77 and maximum is 98. Mean of Hand length of 400m Hurdle is 75.0, standard deviation is 3.7218 and standard error is .29992 minimum in Hand length is 66.00 and maximum is 91.00. Mean of leg length of 400m Hurdle is 98.29, standard deviation is 4.3763 and standard error is 0.3526 minimum in leg length is 84 and maximum is 110. Mean of foot palm length of 400m Hurdle is 24.32, standard deviation is 2.095 and standard error is 0.16193 minimum in foot palm length is 19.0 and maximum is 28. Mean of quadriceps circumference of 400m Hurdle is 47.84, standard deviation is 5.037 and standard error is .40595 minimum in quadriceps circumference is 23.00 and maximum is 57. Mean of calf circumference of 400m Hurdle is 32.11, standard deviation is 2.74 and standard error is 0.22147 minimum in is 25.00 and maximum is 45.00 m. Mean of Weight of 400m Hurdle is 66.38 kg, standard deviation is 7.00 and standard error is 0.56436 minimum in is 50.00 kg and maximum is 87.00 kg. Mean of B.M.I of 400m Hurdle is 22.71 kg, standard deviation is 1.997 and standard error is 0.1609 minimum in is 18.07 kg and maximum is 28.96 kg.

**Table no. 3****Relationship of Anthropometric Measurements with 400 M Hurdle performance**

Name	N	Pierson's co-efficient of correlation	Significance level
Standing height	150	-.026	0.747
Setting height	150	-.068	0.405
Weight	150	-.031	0.708
Hand length	150	-.078	0.339
Leg length	150	.167 <sup>x</sup>	0.039
Foot palm length	150	-.0.122	0.133
Quadriceps Circumference	150	-0.133	0.166
Calf circumference	150	-.110	0.174
B.M.I	150	-.069	0.399

In the above table after interpretation of data the correlation between 400m Hurdle performance and standing height is -.026 and significance level is found 0.747 which states that there is no correlation between the two components and not significant at the 0.05 level of significance. The Setting height and performance of 400m Hurdle is not significant at 0.05 level of significance as correlation found between the two components is -.068 and significance level is found 0.405. The Weight and performance of 400m Hurdle is not significant at 0.05 level of significance as correlation found between the two components is -.031 and significance level is found 0.708. The Hand length and performance of 400m Hurdle is not significant at 0.05 level of significance as correlation found between the two components is -.078 and significance level is found 0.339. There is good correlation found between the leg length and performance of 400m Hurdle as correlation of coefficient is found to be .167<sup>x</sup> and significance level is 0.039 which is significant at 0.05 level. The foot palm

length and performance of 400m Hurdle is also not significant at 0.05 levels of significance as correlation of coefficient between the two components is found  $-0.122$  and significance level is found  $0.133$ . The quadriceps circumference and performance of 400m Hurdle is not significant at 0.05 level of significance as correlation found between the two components  $-0.133$  and significance level is found  $0.166$ . The calf circumference and performance of 400m Hurdle is not significant at 0.05 levels as it showed correlation of coefficient  $-0.110$  and significance level is found to be  $0.174$ . The B.M.I and performance of 400m Hurdle is not significant at 0.05 levels as it showed correlation of coefficient  $-0.069$  and significance level is found to be  $0.399$ .

### **5. Conclusion**

1. In 400m Hurdle, performance and standing height has no significant correlation.
2. In 400m Hurdle, performance and Setting height has no significant correlation.
3. In 400m Hurdle, performance and Weight has no significant correlation.
4. In 400m Hurdle, performance and Hand length has no significant correlation.
5. 400m Hurdle performance and leg length has significant correlation.
6. 400m Hurdle performance and foot palm length has no significant correlation.
7. 400m Hurdle performance and quadriceps circumference has no significant correlation.
8. 400m Hurdle performance and calf circumference has no significant correlation.
9. 400m Hurdle performance and B.M.I has no significant correlation.

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## Personality Characteristics among Individual Game Players and Team Game Players

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### Abstract

Objectives of the study: To Examine of Personality traits among Individual game players and Team game Players. Hypothesis: There will be significant difference between individual game players and team game player dimension on Psychotic Personality Traits. There will be significant difference between individual game players and team game player dimension on Extravert Personality Traits. There will be significant difference between individual game players and team game player dimension on Neuroticism Personality Traits. Sample: The present study was conducted on a purposive sample consisting of 100 among them 50 Individual Game Players and 50 Team Players ranging between 18-25 years of age belonging to Maharashtra State. Tools: Eysenck Personality Test: This test is developed and standardized by Eysenck. The test consisted of 78 Items. The subjects were required to respond to each item in terms of 'YES' OR 'NO'. The reliability coefficient of the test was found 0.87 with Spearman Brown formula. The validity coefficient was found 0.91. Conclusions: 1. Individual Game Players have significantly high Psychotic than Team Game Players. 2. Team Game Players have significantly high Extravert than Individual Game Players. 3. Individual Game Players have significantly high Neuroticism than Team Game Players.

### Introduction:

It is unclear whether the effect of extraversion on team performance observed by Barrick et al. (1998) stems from the effect of the assertiveness/dominance component of extraversion (i.e., extraverts are assertive) or from the sociability/affiliation component of extraversion (i.e., extraverts are sociable). Thus, one goal of the current research is to define specific personality facets within the higher-level Big Five traits that are relevant to team effectiveness.

Eysenck, Hans J.; Nias, D. K.; Cox, D. N. (1982) Sport and personality Advances in Behavior Research & Therapy. On the relationship between participation in sports and personality measures. Athletes tend to be extroverted, low in neuroticism and anxiety, and high on the psychotics-superego variable. Factors that have been used to explain this profile include assertiveness, sensation-seeking, competitiveness, and a lack of cortical control and inhibition of ongoing behavior and immediate reactions. Evidence does not support the suggestion that sporting activity may have a beneficial effect on personality, particularly in reducing anxiety and depression. Automobile driving and sexual activity share characteristics of sports and show correlations with many of the same personality variables. The role of physical-skills learning and genetic factors in both sport and personality is also considered.

Stephen R. McDaniel, Choonghoon Lim, Joseph E. Mahan III (June 2007) The role of gender and personality traits in response to ads using violent images to promote consumption of sports entertainment. The promotion of violent media has become an issue for both marketers and public policymakers. One common form of mediated violence can be found in televised sports. Some media research suggests that males tend to enjoy violent sport media more than females. However, personality research related to the notion of Optimum Stimulation Levels (OSL) suggests certain audiences might be drawn to violent media stimuli,

to help maintain their OSL, regardless of gender. Building upon marketing and media psychology, the current study examines the effect of central (sensation seeking, SS) and surface (Curiosity About Morbid Events, CAME) traits, along with gender, to account for variance in consumer reactions to advertisements utilizing violent/non-violent images to promote sports media. Regression results indicate that subjects' ad response is moderated by OSL constructs, while CAME is found to mediate the effect of SS. Practical and theoretical implications are discussed along with future directions for research.

R. E. Franken, Ross Hill, James Kierstead (*October 1994*) Sport interest as predicted by the personality measures of competitiveness, mastery, instrumentality, expressivity, and sensation seeking. The study was designed to examine sport interest in a sample of male and female university students in order to determine if the personality measures of competitiveness, instrumentality, expressivity, and sensation seeking are predictive of sport interest as well as sport participation in a variety of sports. Factor analysis of Franken's WCMP Scale (a scale that contains a variety of questions pertaining to winning, competitiveness, mastery, and persistence) produced three factors that were named: the Motivation for High Performance Scale (MHP), the Motivation for New Learning Scale (MNL), and the Importance of Winning Scale (WIN). The emergence of the MHP and WIN as distinct factors was taken as evidence for the idea that sometimes people seek out competition in order to perform at a high level or observe others perform at a high level while at other times people seek out competition in order to be a winner or observe others as winners. MHP was the best predictor of sport interest for both males and females although WIN, the Competitiveness Scale of Spence and Helmreich's Work and Family Orientation Questionnaire (WOFO), and Instrumentality were also good predictors for certain sports. MNL, the Mastery Scale of the WOFO, and Expressivity were significant predictors of sport interest but mainly in connection with female interest in figure skating and gymnastics. Sensation seeking was not a predictor of sport interest although certain subscales of Zuckerman's Sensation Seeking Scale did predict sport interest in certain instances. Analysis of sex differences indicated that female as compared to male participants were significantly more interested in gymnastics and figure skating, whereas male as compared to female participants were significantly more interested in hockey, football, baseball and basketball, golf, tennis, and boxing. Males obtained higher scores on all of the personality measures used except expressivity (where females scored significantly higher).

### **Method**

#### **Objectives of the study:**

19.1 To Examine of Personality traits among Individual game players and Team game Players.

#### **Hypothesis:**

2. There will be significant difference between individual game players and team game player dimension on Psychotic Personality Traits.
3. There will be significant difference between individual game players and team game player dimension on Extravert Personality Traits.
4. There will be significant difference between individual game players and team game player dimension on Neuroticism Personality Traits.

#### **Sample:**

The present study was conducted on a purposive sample consisting of 100 among them 50 Individual Game Players and 50 Team Players ranging between 18-25 years of age

belonging to Maharashtra State.

**Tools:**

**Eysenck Personality Test:**

This test is developed and standardized by Eysenck. The test consisted of 78 Items. The subjects were required to respond to each item in terms of 'YES' OR 'NO'. The reliability coefficient of the test was found 0.87 with Spearman Brown formula. The validity coefficient was found 0.91.

**Variables of the study:**

**Independent Variable:**

1) Game Players a) Individual b) Team

**Dependent Variable:**

- I. Psychotic
- II. Extravert
- III. Neuroticism

**Statistical Analysis**

**Table No.01 Mean, S.D, and 't' ratio of Psychotic of Individual Game Players and Team Game Players**

Game Players	Mean	S.D	N	DF	't'
Individual Game Players	16.12	1.23	50	98	19.48
Team Game Players	11.50	1.14	50		

The results related to the hypothesis have been recorded. Mean of Psychotic score of the Individual Game Players Score is 16.12 and that of the Team Game Players Score 11.50 The difference between the two mean is highly significant  $t=19.48$ ,  $df=98$ .

Thus the hypothesis is confirmed Individual Game Players have significantly high Psychotic than Team Game Players.

**Table No.02**

**Mean, S.D, and 't' ratio of Extravert of Individual Game Players and Team Game Players**

Game Players	Mean	S.D	N	DF	't'
Individual Game Players	13.08	1.51	50	98	18.78
Team Game Players	17.40	0.82	50		

The results related to the hypothesis have been recorded. Mean of Extravert score of the Individual Game Players Score is 13.09 and that of the Team Game Players Score 17.40 The difference between the two mean is highly significant  $t=18.78$ ,  $df=98$ .

Thus the hypothesis is confirmed Team Game Players have significantly high Extravert than Individual Game Players.

**Table No.03**  
**Mean, S.D, and ‘t’ ratio of Neuroticism of Individual Game Players and Team Game Players**

Game Players	Mean	S.D	N	DF	‘t’
Individual Game Players	16.14	1.18	50	98	16.43
Team Game Players	12.06	1.30	50		

The results related to the hypothesis have been recorded. Mean of Neuroticism score of the Individual Game Players Score is 16.14 and that of the Team Game Players Score 12.06 The difference between the two mean is highly significant ‘t’= 16.43, df =98.

Thus the hypothesis is confirmed Individual Game Players have significantly high Neuroticism than Team Game Players.

**Conclusions:**

- 1) Individual Game Players have significantly high Psychotic than Team Game Players.
- 2) Team Game Players have significantly high Extravert than Individual Game Players.
- 3) Individual Game Players have significantly high Neuroticism than Team Game Players.

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## **To Compare Effective Factors on Job Satisfaction of Male and Female Faculty Members of Physical Education and Sport Sciences Faculty, Tehran Islamic Azad University, Central Branch**

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### **Abstract**

The present study aims to compare effective factors on job satisfaction in male and female faculty members of physical education and sport sciences faculty in Tehran Islamic Azad University, central branch. The method of study was field study. Statistical society consists of all faculty members of physical education and sport sciences faculty in Tehran Islamic Azad University, central branch. In general, 30 faculty members were available for study. Two questionnaires, based on Likert scale, were used to collect information. To analyze data, descriptive (frequency, percent, and graph) and inferential (independent T and Pearson correlation coefficient) statistical methods were used. Results indicate that job satisfaction was higher in women professors. Correlation coefficient showed that no significant correlation exists between job satisfaction and salary among male and female professors. The main implications of study include generalizing the subject of study to other effective factors in job satisfaction, extending research domain, considering the process of management and its style in achieving job satisfaction.

**Keywords:** job satisfaction, demographic information, faculty of physical education

### **1- Introduction**

Nowadays, people seek more opportunities in order for showing capabilities to reach job satisfaction. Among four sources available for organization management, i.e. human resources, equipment, capital and information, the most important one is human resources around which management affairs ought to be established. When satisfaction and motivation occur in employees, other sources are applied in a more effective manner. So, it seems necessary identifying factors lead to positive view of human resources towards career and work environment. One vital issue in management of human resources is job satisfaction. Managers should create an environment in which employees being motivated as well as work parallel effectively (Shafi abadi, Abdullah, 1992, p.123). Job satisfaction is a factor contributes to more efficiency and personal satisfaction (Bagheri, Hadi, 2009).

Spector (1997) believes job satisfaction is the most prominent variable in considering organizational behavior (Huff& William, 2000). Hoppock defines job satisfaction a complicated and multi-dimensional concept being related with psychological, global and social factors. A single factor cannot produce job satisfaction; instead, a specific combination of various factors cause an employee feels satisfied and points to job satisfaction. Through emphasizing on different factors including salary, social value, work conditions and job productivity in different times, one denotes its job satisfaction. Job attitude includes individual reaction to some part of job. A combination of personal attitudes towards various aspects of a career produces job satisfaction of an employee (Shafi abadi, Abdullah, 1992, p.

124). Lock defines job satisfaction a sense in which job evaluation facilitates achieving job values, which consists of four factors: rewards (salary and job promotion), job context (job benefits), human relations with managers and colleagues, and characteristics of job (Mortazavi, Shahnaz, 1992, p.7). Blanchard considered job satisfaction the pleasure arising from meeting requirements and hopes (Alagheh band, Ali, 1989, p.231).

A variety of factors play role in satisfaction all of which are hard to identified. Therefore, paying attention to job satisfaction can be considered one important issue in management (Shafi abadi, Abdullah, 1998, p.123). Shertzler believes many factors intervening in job satisfaction among which the following are vital:

- a) Salary: the proportion of salary with job and the extent of applied work.
- b) Security: people prefer a stable and permanent job. Security means possessing a valid job not disappearing due to an accident. Most people prefer a job with low salary and high durability, rather than a job with high salary but not durable.
- c) Good work condition: this factor, generally, is known very important in job satisfaction. Employees like to work in a clean and pleasure environment. White collars can earn more money in the case of performing specialized manual works, but they don't change their work.
- d) Chance to promotion: sometimes, people reject a job with high salary and choose one with lower income by the hope of faster organizational promotion. What is important in choosing a job is fair behavior. Employees don't want a guaranteed promotion but rather seek a fair chance to move forward.
- e) Human resources: employees expect reward in the case of good efforts; also, if things go wrong, they ask help. This manifests people have other objectives than money in work environment. A job would be satisfactory if delivers security, equipment, good work condition, and proper salary in accordance the job employees perform (Zandi poor, Saleh, 1990, p.76).

Concerning effective factors on job satisfaction and personal motivation, a series of theories are in hand being classified under two broad categories. One is content theories which consider the content of job satisfaction and motivation (Maslow theory, Herzberg theory ...). The other category relates to procedures in achieving job satisfaction (Adams theory, Victor theory ...) (Eghtedari, 1991; Alvani, 1996).

The most common theory in the process of considering job satisfaction is Herzberg theory. Based on this, effective factors on job satisfaction are grouped in external (preventive) and internal (attitude, motivation) factors. Each encompasses specific domains (Herzberg, 1990), which help in recognition of more significant factors in job satisfaction so that can lead to catapulting the quality of performance in professors.

It can be argued that every job has its own characteristics influencing employees' responsibilities. These characteristics can both make satisfaction and reluctance towards job. Features like tasks variation, extent of responsibility, social status and job position in organizational hierarchy lead to internally satisfactory job. The more a job is internally satisfactory and possesses more independence, the more it motivates people to work better.

Today, academic centers, due to having knowledge and expertise, are so valid around the world and play a huge role in social change. Higher education is a process expected to exert more influence in social and economical changes and walk along with development (Shoari nezhad, Ali akbar, 1995, p.129).

Faculty members are among the main elements of higher education, who through

instructing students play a substantial role in training professional human resources and developing the whole state. Undoubtedly, maintaining faculty members is so vital. It is evident that, to reach objectives, universities need motivated professors to be influential in increasing knowledge of students and social health. Tension and lack of job satisfaction among faculty members can be threatening to physical and mental health and life quality. This, also, hinders achieving personal and social development targets. In this study, concerning the importance of job satisfaction between faculty members in progressing academic objectives and more productivity, has been tried to study two organizational factors among faculty members regarding job satisfaction, including:

- 1- Payroll
- 2- How to manage

Therefore, the present study seeks to study effective factors on job satisfaction of professors based on their gender.

### 1-2- Research hypothesis

1-2-1- How to manage in job satisfaction is more important for female professors than male professors.

1-2-2- Payroll in job satisfaction is more important for male professors than female professors.

### 2- Methodology

Based on research objectives, developmental- applicational method was used. Survey study was used to meet the hypotheses and quantitative data. Statistical society consists of all faculty members of physical education and sport sciences faculty in Tehran Islamic Azad University, central branch. In general, 30 faculty members were available for study (15 male and 15 female). This number, through applying statistical mechanisms, was generalized to whole society. To gather data, a researcher-made questionnaire was designed. It consisted of two parts. One part relates to personal information consisting of 20 questions which clarify the level of job satisfaction. The other part, consisted of 30 questions, showed the extent of satisfaction from payroll and management. All questions were four-choices and were scored based on Likert spectrum. To determine reliability of questionnaire by Cronbach's alpha, a 96% reliability was found for personal satisfaction questionnaire and a 86% reliability for payroll and management questionnaire. In addition to descriptive statistics like frequency, mean and standard deviation, inferential statistics like Pearson correlation coefficient was applied.

### 3- Findings

In this section, data regarding research variables are presented in descriptive tables.

**Table 1: quantitative description of job satisfaction in male and female professors**

Gender	number	mean	standard deviation
female	15	60.53	8.51
male	15	52.93	9.75

Table 1 presents standard deviation and mean of variables among male and female faculty members. It shows that mean of job satisfaction in female is more than male professors, which manifest more job satisfaction among female professors.

**Table 2: quantitative description of attitude of faculty members about management**

Gender	number	mean	standard deviation
female	15	45.80	8.45
male	15	45	6.34

Table 2 presents standard deviation and mean of variables among male and female faculty members. It suggests that there is no difference between attitudes of these two groups.

**Table 3: quantitative description of attitude of faculty members about payroll**

Gender	number	mean	standard deviation
female	15	28.93	4
male	15	27.33	5.55

Table 3 presents standard deviation and mean of variables among male and female faculty members. Therefore, it shows female professors have somehow higher mean regarding payroll.

**Data analysis**

H1: How to manage in job satisfaction is more important for female professors than male professors.

**Table 4: test of independent samples**

equal variances	variance analysis (F)	SIG	T	degree of freedom	SIG (2-TAILED)
satisfaction	0.252	0.620	2.273	28	0.031
management	0.922	0.345	0.293	28	0.772
payroll	1.016	0.322	0.905	28	0.373

Based on results, it can be said that no significant difference is among satisfaction, management and payroll, so, variances are equal. For T, equality of variances is considered. Results of T equation show that a significant difference between male and female job satisfaction exists. Female professors, with mean of 60, are of more job satisfaction comparing male professors. Regarding management, significance is on 0.772 ( $P=0.772>0.05$ ). It means difference is not significant. Concerning mean of male and female professors in management, 45.8 for women and 45 for men, a relatively similar attitude was available among two groups.

Now, it is possible to consider the relation between management and satisfaction with gender, in other words, comparing men, a higher relation exists between management and job satisfaction among female professors.

**Table 5: female correlation coefficient**

female	management	payroll
Pearson correlation coefficient	0.691	- 0.014
significance	0.004	0.962
number	15	15

Results point to the fact that, based on the amount of correlation coefficient and significance, a significant correlation exists between management and job satisfaction among female professors.



**Table 6: male correlation coefficient**

male	management	payroll
Pearson correlation coefficient	0.631	- 0.358
significance	0.012	0.190
number	15	15

Results point to the fact that a significant correlation exists between management and job satisfaction among male professors. So, there is a significant correlation between management and job satisfaction among both groups, that is, job satisfaction of male and female professors relates to management. But, this is higher among female professors.

H2: Payroll in job satisfaction is more important for male professors than female professors.

As was mentioned, there is a significant correlation between payroll and job satisfaction in male and female faculty members. It should be clarified whether a significant correlation exists between payroll and job satisfaction with gender.

In female professors, correlation coefficient and significance are 0.01 and 0.962, respectively. Therefore, it is concluded that no significant relation is between job satisfaction and payroll in women. Based on table 6, it is clear that no significant relation exists between job satisfaction and payroll in men.

Therefore, no significant correlation is among job satisfaction and payroll in both groups. This rejects hypothesis 2.

#### **4- Conclusion**

Considering the given data, and the fact that university is an organization with a variety of positions, the present study tries to consider job satisfaction in male and female faculty members of physical education and sport sciences faculty in Tehran Islamic Azad University, central branch.

Regarding the first hypothesis, the mean of job satisfaction, how to management, and payroll in women (n= 15) was 60, 45, and 28, respectively. For men (n=15), they were 52, 45, and 27, respectively. Based on the results of standard deviations in men and women, it was clarified that significance of job satisfaction, management, and payroll are 0.6, 0.3, and 0.3, respectively. That is why equal variances were considered in the process of data analysis. After performing independent T, results show that a significant difference exists between male and female regarding job satisfaction. Women had a higher amount of job satisfaction than men. Results of this study are in accordance with Toft (1993) regarding gender, and also, Clark (1997) about gender and job satisfaction. In the case of management with significance of 0.772, it can be mentioned that there is no significant difference among faculty members, but, generally, women have higher satisfaction. Findings suggest there is a significant correlation between management and job satisfaction, but, correlation coefficient in women is relatively higher than men.

About hypothesis 2, correlation coefficient showed that there is no significant correlation among men and women, so it was rejected.

It can be mentioned that universities are among organizations responsible of producing knowledge and scientific information, and training professional staff. In this regard, employees, especially faculty members, are considered as an effective factor in universities performance. This scientific institute can have an appropriate performance if use its human resources in an organized manner. In the case of having valid and trustful faculty members

and employees, universities are capable of meeting their optimal objectives and prevent from wasting resources. To reach this target, it is recommended that:

- 1- To promote job satisfaction among men, more attention should be paid to managerial procedures.
- 2- To achieve a more comprehensive image of job satisfaction in professors, other universities, fields and faculties have to be studied.
- 3- This study focused on just two variables. Therefore, it is suggested other effective factors be studied to reach more complete results in relation to effective factors on job satisfaction.
- 4- It is recommended the same study be performed with a broader statistical society.
- 5- It can be a good field of study to consider what procedures are influential for men and women separately.

It hopes the present study be a useful approach for authors and practitioners and could meet its objectives.

### **5- Acknowledgments**

Hereby, it is highly acknowledged all faculty members, who through presenting their fruitful views, helped in promoting the quality of this article.

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## Holistic Approach in Yoga along with Applied Spirituality to Enhance Sports Activities

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### Abstract

In the past few years Yoga and Meditation becomes the necessity of life. Generally these concepts are mostly used to improve our mind power. The present work proposes methodology to improve or enhance the sports activities. There are two major phases on which we are concentrating one is to improve the spiritual power and the second is minimum warm exercise suggested in this paper. The propose methodology can be use along with the traditional methods used in the sports academy. Holistic approach is explained along with the spiritual concepts. Holistic approach in Yoga will help the sportsman to make sportsman mind healthier and hence will imbibe the spiritual concepts immediately.

**Index terms:** Holistic approach in yoga, Spirituality in daily life

### I. INTRODUCTION

#### 1.1 PROBLEM STATEMENT

It is found that most of the sportsman is starting the training enthusiastically but most of them cannot continue till end even after getting the continuous guidance from their coach, doctors . We found some of the reasons after conducting surveys in various sports academy and then we generalized it into following two categories.

1. Lack of spiritual power
2. Minimum warm up exercise needed in daily life.

The propose methodology finds the reason in the above two problems and also suggest the methods to improve the sports activities.

#### 1.2 LITERATURE SURVAEY

Stress management is the useful methods suggested and is useful in lowered stress, anxiety, and depression and that “clinicians should be prepared to talk with their patients about the role that a meditation program could have in addressing psychological stress” [1].

There are 36 values and one can imbibe any one of the values in their life which is valuable according to their way of thinking and the same is useful to learn new things [2].

Dr. Sara Lazar explains that “meditation can literally change your brain” by increasing the size of the hippocampus, which is associated with learning and memory, and the temporal-parietal junction, which is associated with empathy and compassion [3].

Dr. Kelly Brogan, holistic women’s health physician, describes those changes as decreased heart rate, blood pressure, rate of breathing, and muscle tension, and she adds that this “relaxation response” can combat stress, a part of “what is actually driving chronic diseases such as auto-immune, cardiovascular, and psychiatric pathology”(Brogan, 2014) [4].

Sister Shivani from Brahmakumaris Organization explains in her lecture that there are Belief Patterns in everyone mind accordingly he reacts and to breaking these boundaries made by “Belief Patterns” is necessary. One can cross the boundaries and enjoy the life but then he has to learn the meditation techniques accordingly. [5].

**2. Need to understand Applied Spirituality:** Spiritual powers are related with mind, brain and his way to deal with certain problems number of times. When we learn spiritual power one has to lose its body consciousness and tried to remain in soul consciousness. It is not easy to convert your thoughts in the direction which will divert your body consciousness to soul consciousness. To do this we need to understand certain spiritual concepts, values, powers. Only understanding the concepts is not enough but using these concepts one should be able to utilize the inner powers.

**2.1 Belief pattern hidden in ourselves:** Belief pattern may be because of our culture, family members, society in which we are living. We need to understand how these belief pattern is developed and one should realize the limitations because of these belief pattern. To understand the belief pattern one need to introverts, need to discuss with others and think how the way to deal with the situation can be different than the person's traditional way. Sportsman need to understand their hidden belief patterns otherwise these belief pattern will becomes obstacles in developing new strategy in their games.

**2.2 Cultural Understanding and Global thinking:** Information technology has penetrated almost every aspect of our lives, "shrinking" our world into a global village. Economies and cultures have come closer. People are now aware of the cultures, traditions, lifestyle, living conditions prevailing in almost every corner of the world. Interestingly, this is going beyond awareness and into a state of integration that is a result of cross-pollinated views, ideologies, products and services. This evolution is termed as "globalization". Our thinking should be global that means broad vision. We may need to travel across various countries having different styles, so we should be able to compare how the peoples in different parts of world react in certain situations. The sportsman are also traveling across the country and may need to understand this cultural difference. To accept the others is also one important value because if one will not accept others then the learning from others ( peer to peer learning has more importance in Bloom's Taxonomy) will also not occur.

**2.3 Soft Skills:** Soft Skills are also an integral part of applied spirituality. We know that attitude is more important than the talent. To develop learning attitude is one kind of soft skills. It is proved that the 80 % success is because of soft skills and also it is not necessary that these skills should be in your blood. One can develop these skills at his own. In every match the sportsman get chance to improve his game because of Soft Skills. Literature is available on soft skills. 2.4

**2.4 Meditation with open eyes:** We have tradition to do meditation with closed eyes. Here we suggest meditation with open eyes. In real world sportsman has to play gamewith open eyes . We have performed experiment on peoples by telling them to meditate without closing their eyes and it is found that their capacity to take decision, alertness is increased instead of meditating with closed eyes. It may find difficult at start but once practice the same power sportsman can easily apply in his game too.

**3. Holistic approach in Yoga:** Since last few years, most of the coach recommend Yoga in daily routine. In Yoga, the various kinds of Asanas are also suggested which gives flexibility to body. We suggests the method called "Holistic Approach" means the exercise which will accepted by all. Even when our body is paining or if the person is tired because of lot of exertion, then also 15 minutes of Yoga in "Holistic Approach" is beneficial. In Holistic Approach, Sportsman has to perform simple exercise using old film songs. The body has to give slow movement in along with the songs. It is found that it also gives relaxation to body and mind simultaneously.

**4. CONCLUSION:** After implementing these two methods, Holistic Approach and Applied Spirituality in sportsman routine life we find them not only more energetic and alert while playing game but spiritual and positive too. We are recommending these methods in their routine schedule. It is found that these methods will also improve the regularity and punctuality in their routine schedule.

#### **XII. ACKNOWLEDGMENT**

When it comes to acknowledge people who have helped us in our project ,the first name would definately Brahmakumaris Organization and Brahmakumaris Sports Wing. Also we are thankful to various sports academy who had given chance to study the psychology in sportsman.

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## Yoga- a Perfect Strength Developmental Remedy For Seniors

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### Abstract

For every movement, we require muscle strength. In technical terms, muscle strength describes the force generated when a muscle or group of muscles contracts. In practical terms, muscle strength refers to the capacity to lift, push or pull against weight. Maintaining muscle strength over the long term is an essential component of our good health. The increasing age decreases strength, these made effect on mobility and its decline social engagement of the seniors. United Nations Population Fund and Help Age India suggests that India had 90 million elderly persons in 2011, with the number expected to grow to 173 million by 2026, of the 90 million seniors, 30 million are living alone, and 90 per cent work for livelihood The researcher was conducted a research, to find out health developmental exercise module for seniors. The present experiment was conducted by using Double-Pretest Posttest Single-Group Design. Urban Male Senior Citizens, aged 60 to 70 years was the target population of the study. *Thirty (n=30) Male Senior Citizens* of aged 60 to 70 years from Junagar Citizen Club, Navi Mumbai were selected for the experiment. Yogic Practices were selected as Independent Variables whereas Muscular Strength was selected as Dependent Variable. Upper and Lower body muscular strength of the seniors was recorded in Pretest-1 Pretest-2 and Posttest. After Pretest-1, all selected subjects were *restricted* to participate in any yogic practices for 'Ten Weeks' i.e. blank period of the study, after the blank period of 'Ten Weeks', *Pretest-2* of the same variables were conducted. After Pretest-2 all selected subjects were exposed to '*Yogic Treatment*' for the period of 'Ten Weeks', daily in the morning for 60 minutes, except Sundays. After '*Yogic Treatment*' Posttest of the same variable was conducted and data was recorded for the further investigation. It can be seen that there is significant difference in Lower Body Strength as well Upper Body Strength between Pretest-1 and Posttest at *0.01 level*. This study was concluded that, Ten weeks selected Yoga training program helps to improve the Strength of Lower Body and Upper Body in Senior Urban Citizens.

**Keywords:** -*Muscular Strength, Senior Citizens, Yoga*

### INTRODUCTION

For every movement we require muscle strength. In technical terms, muscle strength describes the force generated when a muscle or group of muscles contracts. In practical terms, muscle strength refers to the capacity to lift, push or pull against weight. Maintaining muscle strength over the long term is an essential component of our good health.

Many literatures revealed that, older adults have a highest rate of chronic diseases, such as cardiovascular disease, cancer, diabetes, osteoporosis and arthritis. The increasing age decreases sensation of test, smell vision, hearing, mental ability, organic functions, cardio respiratory endurance, strength, flexibility, muscular endurance, balance and reaction

time, these made effect on mobility and its decline social engagement of the seniors. This is a serious and important problem because, a report released by the United Nations Population Fund and Help Age India suggests that India had 90 million elderly persons in 2011, with the number expected to grow to 173 million by 2026, of the 90 million seniors, 30 million are living alone, and 90 per cent work for livelihood (Government of India, 2017).

The growth of the elderly population in the coming decades will bring with it unprecedented burdens of morbidity and mortality across the country. As we have outlined, key challenges to access health for the Indian elderly include social barriers shaped by gender and other axes of social inequality. Hence the researcher was conducted a research, to find out health developmental exercise module for seniors. The conducted research study was followed the following methods.

#### METHOD

- **Design of the study**

The present experiment was conducted by using *Double-Pretest Posttest Single-Group Design* (Kirk Roger, 2013).

- **Sample**

Urban Male Senior Citizens, aged 60 to 70 years was the target population of the study. *Thirty (n=30) Male Senior Citizens* of aged 60 to 70 years from Juinagar Citizen Club, Navi Mumbai were selected for the experiment.

- **Independent Variable**

The following Yogic Practices presented in Table 1 were selected as Independent Variables for the experiment.

**Table 1**  
*Independent Variables i.e. Asnas, Kriyas, Pranayama and Dhyana*

'Asnas'	'Kriya'
<b>Seating Posture</b>	• Kapalbhata
• Vajrasana	<b>'Pranayama'</b>
• Ardhpadasana	• Anulom-Vilom
• Gomukhasana	• Ujjayee Pranayama
• Parvatasana	<b>Dhyana</b>
• Paschimottanasana	• Omkar
• Shavasana	
• Pawanmuktasana	
• Bhujangasana	
• Ardhalasana	
• Ardhalbhasana	
• Naukasana	
• Shalabhasana	
• Tadasana	
• Utkatasana	
• Vrikshasana	

- **Dependent Variables**

Health Related Physical Fitness Component *Muscular Strength* was selected as Dependent Variable.

- **Procedure of the Study**

The researcher was conducted *Pretest-1* of Upper Body Strength as measured by Arm Curl Test and Lower Body Strength as measured by 30-Second Chair Stand Test (Morrow, Allen, Jackson, Disch, & Mood., 2005) to measure and recorded the data of upper and lower body muscular strength of the seniors. After *Pretest-1*, all selected subjects were *restricted* to participate in any yogic practices for 'Ten Weeks' i.e. blank period of the study, after the blank period of 'Ten Weeks', *Pretest-2* of the same variables were conducted. After *Pretest-2* all selected subjects were exposed to '*Yogic Treatment*' for the period of 'Ten Weeks', daily in the morning for 60 minutes, except Sundays. After '*Yogic Treatment*' Posttest of the same variable was conducted and data was recorded for the further investigation.

## RESULT

*One Way Repeated Measure ANOVA* followed by *Least Significant Difference Method* (LSD) was used to analyze the data (Verma, 2013) and the results are presented below.

**Table 2**  
***Descriptive Statistics of Lower Body Strength of Seniors***

	<i>Mean</i>	<i>SD</i>	<i>N</i>
Pretest-1	12.60	1.79	30
Pretest-2	13.17	1.46	30
Posttest	16.53	2.93	30

*SD*= Standard Deviation

Table 2 shows descriptive statistics of Lower Body Strength of Seniors. Mean score of Pretest-1 is 12.60 (SD 1.79), Pretest-2 is 13.17 (SD 1.46) and mean score of Posttest is 16.53 (SD 2.93).

**Table 3**  
***Summary of Repeated Measure ANOVA of Lower Body Strength of Senior***

<b>Source of Variance</b>	<b><i>df</i></b>	<b><i>SS</i></b>	<b><i>MS</i></b>	<b><i>F</i></b>	<b><i>Remark</i></b>
Tests	2	271.27	135.63	51.96	<b><i>p&lt;0.01</i></b>
Error	58	151.40	2.61		
Total	60				

From *Table 3* it is evident that, *F ratio* for treatment is 51.96 which is significant at 0.01 level with  $df = 2/58$ , it reflects that the Repeated Measure Mean Scores of Lower Body Strength of Senior Urban Citizen, taken three tests in different time, differs significantly. In order to know which Test of Lower Body Strength mean score is significantly higher than the other tests. The data were further analyzed by using Least significant difference method and results are given in *Table 4*.



**Table 4**  
**Multiple Comparisons of Repeatedly Measured Tests of Lower Body Strength**

		Mean Difference	Std. Error	Remark
Pretest-1	Pretest-2	0.57	0.24	$p > 0.05$
Pretest-2	Posttest	3.36**	0.49	$p < 0.01$
Pretest-1	Posttest	3.93**	0.47	$p < 0.01$

\*\* Significant at 0.01 level

From Table 4. it can be seen that there is significant difference in Lower Body Strength between Pretest-1 and Posttest at 0.01 level. In case of Pretest-2 and Posttest there is significant difference in Lower Body Strength at 0.01 level. In case of Pretest-1 and Pretest-2 no significant difference is found, it may be therefore said that the Post-test found to be significantly high Lower Body Strength as compare to Pretest-1 and Pretest-2.

**Table 5**  
**Descriptive Statistics of Upper Body Strength of Seniors**

	Mean	SD	N
Pretest-1	17.63	4.94	30
Pretest-2	18.30	5.09	30
Posttest	22.33	4.98	30

Table 5 shows descriptive statistics of Upper Body Strength of Seniors. Mean score of Pretest-1 is 17.63 (SD 4.94), Pretest-2 is 18.30 (SD 5.09) and mean score of Posttest is 22.33 (SD 4.98).

**Table 6**  
**Summary of Repeated Measure ANOVA of Upper Body Strength of Urban Senior Citizens**

Source of Variance	df	SS	MS	F	Remark
Tests	2	388.02	194.01	34.31	$p < 0.01$
Error	58	327.98	5.65		
Total	60				

From Table 6 is evident that,  $F$  ratio for treatment is **34.31** which is significant at 0.01 level with  $df = 2/58$ , it reflects that the Repeated Measure Mean Scores of Upper Body Strength of Senior Urban Citizen, taken three tests in different time, differs significantly. In order to know which Test of Upper Body Strength mean score is significantly higher than the other tests. The data were further analyzed by using Least significant difference method and results are given in Table 7.

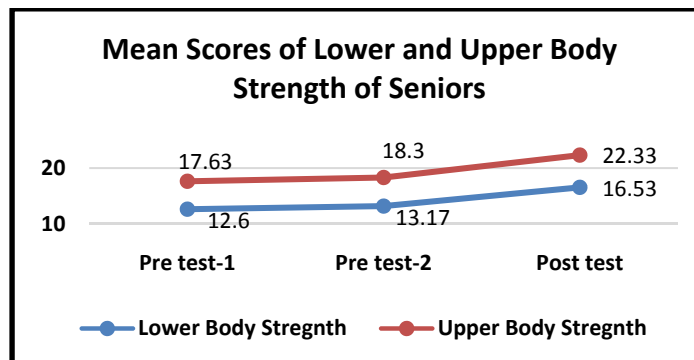
**Table 7**  
**Multiple Comparisons of Repeatedly Measured Tests of Upper Body Strength**

		Mean Difference	Std. Error	Remark
Pretest-1	Pretest-2	0.67	0.41	$p > 0.05$
Pretest-2	Posttest	4.03**	0.74	$p < 0.01$
Pretest-1	Posttest	4.70**	0.64	$p < 0.01$

\*\* Significant at 0.01 level

From Table 7. it can be seen that there is significant difference in Lower Body Strength

between Pretest-1 and Posttest at 0.01 level. In case of Pretest-2 and Posttest there is significant difference in Lower Body Strength at 0.01 level. In case of Pretest-1 and Pretest-2 no significant difference is found, it may be therefore said that *the Post-test found to be significantly high Upper Body Strength* as compare to Pretest-1 and Pretest-2. Figure-1 shows the mean scores of Lower and Upper Body Strength of Seniors.



**Figure-1 Mean scores of Lower and Upper Body Strength of Seniors.**

## DISCUSSION

Muscular strength is the maximal contraction power of the muscle, in the older age the muscular Strength becomes weak and thereby the elderly people cannot able to perform as powerfully as the younger.

The purpose of the present study was to study the efficacy of Ten Week Yoga Practices for the promotion of Muscular Strength of Lower and Upper Body of Senior Urban Citizens aged 60 to 70 years.

It appears from the results that the posttest performance of Lower Body Strength as measured by 30 sec. *Chair Stand Test* and Upper Body Strength as measured by *Arm Curl Test* of male Senior Citizens aged 60-70 years were significantly increased. It is evident from the result that the reviewed relevant studies conducted by other researchers viz., Raub & James, 2002; Hill et al. 2007; Gharote, 1976; Patel et al. 2012; are supporting, up to some extent, to the above stated result of the present study. It is also pertinent to note that the said relevant studies have been conducted by different researcher with different purpose and under different conditions too. On the other hand, the researcher has not come across any study conducted on 'Role of Yoga in Lower and Upper Body Strength of Senior Urban Citizens'.

The probable reason for the significant improvement in case of Lower and Upper Body Strength of Senior Citizens of Urban area is nothing but the systematic intervention of Ten Weeks Yogic Practices. Ten weeks' Yogic practices might have improved the Strength of Lower Body and Upper Body of the Senior Citizens. It is evident from the Yoga literature that Yogic practices are effective in improving Lower and Upper Body strength. Hence, due to the integrated and harmonious approach of the Yoga, the above result is evident in case of Senior Urban citizens. Therefore, systematic yogic practices could be justifiably incorporate in daily routine for Senior Urban Citizens aged 60 to 70 years.

## CONCLUSION

Ten weeks selected Yoga training program helps to improve the Strength of Lower Body and Upper Body in Senior Urban Citizens.

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## Sports Psychology

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### Abstract

Sports psychology is a branch of psychology that focuses on how individuals are affected by playing sports as well as how to improve a person's mind set in order to excel at sports. A sport psychologist understands that individuals who play sports must be healthy in both their bodies and minds in order to succeed. At times, some athletes need help overcoming psychological issues that do not allow them to play to their full potential. Reducing stress and extreme anxiety before events often leads to better performances by athletes. Sport psychologists often work with several different types of athletes, from amateurs to professionals. Athletes might seek out these professionals on their own, or coaches might seek the help of these types of psychologists when they notice that the athletes under their tutelage seem to be off. According to one study, the majority of Olympic athletes have used several different types of psychological treatments to reduce anxiety before performances.

### Sports Psychology

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Athletes aren't the only ones that can benefit from sport psychology, however, although they are the most likely. Some individuals who are in the middle of high stress and highly competitive careers might also benefit from a few counselling sessions with sport psychologists. This can include professionals such as business people, performing artists, and politicians. Sports psychology is the study of how psychology influences sports, athletic performance, exercise, and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan.

Professional sports psychologists often help athletes cope with the intense pressure that comes from competition and overcome problems with focus and motivation. They also work with athletes to improve performance and recover from injuries. But sports psychologists do not just work with elite and professional athletes. They also help regular people learn how to enjoy sports and learn to stick to an exercise program.

### Sports Psychology Today

Contemporary sports psychology is a diverse field. While finding ways to help athletes is certainly an important part of sports psychology, the application of exercise and physical activity for improving the lives of non-athletes is also a major focus.

There are a number of different topics that are of special interest to sports psychologists. Some professionals focus on a specific area, while others study a wide range of techniques.

- **Imagery:** Involves visualizing performing a task, such as participating in an athletic event or successfully performing a particular skill.
- **Motivation:** A major subject within sports psychology, the study of motivation looks at both extrinsic. Extrinsic motivators are external rewards, such as trophies, money, medals or social recognition. Intrinsic motivators arise from within, such as a personal desire to win or the sense of pride that comes from performing a skill.
- **Attentional Focus:** Involves the ability to tune out distractions, such as a crowd of screaming fans, and focus attention on the task at hand.

### Careers in Sports Psychology

Becoming a sports psychologist could be an exciting career choice for many psychology students, especially those who have a strong interest in sports and physical activity. The American Psychological Association describes sports psychology as a "hot career," suggesting that those working in university athletic departments earn around \$60,000 to \$80,000 per year. If you are interested in this career, learn more about the educational requirements, job duties, salaries and other considerations in this profile of careers in sports psychology.

The increased stress of competitions can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand.

This has led coaches to take an increasing interest in the field of sport psychology and in particular in the area of competitive anxiety. That interest has focused on techniques that athletes can use in the competitive situation to maintain control and optimise their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armoury in edge. Concentration, confidence, control and commitment are generally considered the main mental qualities that are important for successful performance in most sports.

- **Concentration** - ability to maintain focus
- **Confidence** - believe in one's abilities
- **Control** - ability to maintain emotional control regardless of distraction
- **Commitment** - ability to continue working to agreed goals.

### Concentration

This is the mental quality to focus on the task in hand. If the athlete lacks concentration then their athletic abilities will not be effectively or efficiently applied to the task

- **Broad Narrow continuum** - the athlete focuses on a large or small number of stimuli
- **Internal External continuum** - the athlete focuses on internal stimuli (feelings) or external stimuli (ball)

The demand for concentration varies with the sport:

- **Sustained concentration** - distance running, cycling, tennis, squash
- **Short bursts of concentration** - cricket, golf, shooting, athletic field events
- **Intense concentration** - sprinting events, bobsleigh, skiing

Common distractions are: anxiety, mistakes, fatigue, weather, public announcements, coach, manager, opponent, negative thoughts etc. Strategies to improve concentration are very personal. One way to maintain focus is to set process goals for each session or competition. The athlete will have an overall goal for which the athlete will identify a number of process goals that help focus on specific aspects of the task. For each of these goals the athlete can use a trigger word e.g. sprinting technique requires the athlete to focus on being tall, relaxed, smooth and to drive with the elbows - trigger word could be "technique"

Athletes will develop a routine for competition that may include the night before, the morning, pre competition, competition and post competition routines. If these routines are appropriately structured then they can prove a useful aid to concentration.

### **Confidence**

Confidence results from the comparison an athlete makes between the goal and their ability. The athlete will have self-confidence if they believe they can achieve their goal. When an athlete has self-confidence they will tend to: persevere even when things are not going to plan, show enthusiasm, be positive in their approach and take their share of the responsibility in success and fail.

To improve their self-confidence, an athlete can use mental imagery to:

- visualise previous good performance to remind them of the look and feel
- imagine various scenarios and how they will cope with them

Good goal setting can bring feelings of success. If athletes can see that they are achieving their short term goals and moving towards their long term goals then confidence grows.

Confidence is a positive state of mind and a belief that you can meet the challenge ahead - a feeling of being in control. It is not the situation that directly affects confidence; thoughts, assumptions and expectations can build or destroy confidence.

#### High self confidence

- **Thoughts** - positive thoughts of success
- **Feelings** - excited, anticipation, calm, elation, prepared
- **Focus** - on self, on the task
- **Behaviour** - give maximum effort and commitment, willing to take chances, positive reaction to setbacks, open to learning, take responsibility for outcomes

#### Low self confidence

- **Thoughts** - negative, defeat or failure, doubt
- **Feelings** - tense, dread, fear. not wanting to take part
- **Focus** - on others, on less relevant factors (coach, umpire, conditions)
- **Behaviour** - lack of effort, likely to give up, unwilling to take risks (rather play safe), blame others or conditions for outcome

### **Control**

Identifying when an athlete feels a particular emotion and understanding the reason for the feelings is an important stage of helping an athlete gain emotional control. An athlete's ability to maintain control of their emotions in the face of adversity and remain positive is essential to successful performance. Two emotions that are often associated with poor performance are anxiety and anger.

**Anxiety comes in two forms** - Physical (butterflies, sweating, and nausea, needing the toilet) and Mental (worry, negative thoughts, confusion, lack of concentration). Relaxation is a technique that can be used to reduce anxiety.

When an athlete becomes angry, the cause of the anger often becomes the focus of attention. This then leads to a lack of concentration on the task, performance deteriorates and confidence in ability is lost which fuels the anger - a slippery slope to failure.

### **Commitment**

Sports performance depends on the athlete being fully committed to numerous goals over many years. In competition with these goals the athlete will have many aspects of daily life to manage. The many competing interests and commitments include work, studies, family/partner, friends, social life and other hobbies/sports

Within the athlete's sport, commitment can be undermined by:

- a perceived lack of progress or improvement
- not being sufficiently involved in developing the training program
- not understanding the objectives of the training program
- injury
- lack of enjoyment
- anxiety about performance - competition
- becoming bored
- coach athlete not working as a team
- lack of commitment by other athletes

### **Successful emotional states**

The following are emotional states experienced with successful performance:

- **Happy** - felt that this was my opportunity to demonstrate an excellent performance. Felt I could beat anybody.
- **Calm and nervous** - Felt nervous but really at ease with these feelings. I accepted and expected to be nervous but felt ready to start.
- **Anxious but excited** - Felt so ready to compete but a little nervous. Nerves and excitement come together
- **Confident** - I remembered all the successful training sessions and previous best performances

### **Psychology Skills Training**

Psychology skills training for the athlete should aim to improve their mental skills, such as self-confidence, motivation, the ability to relax under great pressure, and the ability to concentrate and usually has three phases:

- Education phase, during which athletes learn about the importance of psychological skills and how they affect performance
- Acquisition phase, during which athletes learn about the strategies and techniques to improve the specific psychological skills that they require
- Practice phase, during which athletes develop their psychological skills through repeated practice, simulations, and actual competition.

### **Why Do We Need Sports Psychology?**

- Sport psychology can be used to help understand what motivates athletes and what makes them perform better. Professionals in this field are very knowledgeable and compassionate regarding the challenges and pressures that most athletes face today. Athletes that take advantage of counselling from a sport psychologist will often be better contenders and have more fulfilling careers.

- So, what's that mean for the Average Joes glued to their television sets every Sunday afternoon? Well, it gives us more reasons to cheer on our favourite athletes and sometimes makes us want to get up and compete ourselves.

### Areas of Psychology

Psychology is a broad and diverse field. Some different subfields and specialty areas have emerged. The following are some of the major areas of research and application within psychology:

- **Abnormal Psychology** is the study of abnormal behaviour and psychopathology. This specialty area is focused on research and treatment of a variety of mental disorders and is linked to psychotherapy and clinical psychology.
- **Biological Psychology**, also known as biopsychology, studies how biological processes influence the mind and behaviour. This area is closely linked to neuroscience and utilizes tools such as MRI and PET scans to look at brain injury or brain abnormalities.
- **Clinical Psychology** is focused on the assessment, diagnosis, and treatment of mental disorders. It is also considered the largest employment area within psychology.
- **Cognitive Psychology** is the study of human thought processes and cognitions. Cognitive psychologists study topics such as attention, memory, perception, decision-making, problem-solving, and language acquisition.
- **Comparative Psychology** is the branch of psychology concerned with the study of animal behaviour. This type of research can lead to a deeper and broader understanding of human psychology.
- **Developmental Psychology** is an area that looks at human growth and development over the lifespan. Theories often focus on the development of cognitive abilities, morality, social functioning, identity, and other life areas.
- **Forensic Psychology** is an applied field focused on using psychological research and principles in the legal and criminal justice system.
- **Industrial-Organizational Psychology** is a field that uses psychological research to enhance work performance, select employee, improve product design, and enhance usability.
- **Personality Psychology** looks at the various elements that make up individual personalities. Well-known personality theories include Freud's structural model of personality and the "Big Five" theory of personality.
- **School Psychology** is the branch of psychology that works within the educational system to help children with emotional, social, and academic issues.
- **Social Psychology** is a discipline that uses scientific methods to study social influence, social perception, and social interaction. Social psychology studies diverse subjects including group behaviour, social perception, leadership, nonverbal behaviour, conformity, aggression.

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## Availability of Learning Resources in Fitness and Wellness

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### Abstract

“A fit nation is an asset and weak nation a Liability” (Uppal, 1986) as per this saying of researcher it is self-evident that the fit citizens are Nation's best assets and weak ones its liabilities. It is therefore the responsibility of every country to promote physical fitness of its citizens because physical fitness is the basic requirement for most of the task to be undertaken by an individual in his daily life. Physical fitness is a general state of health and well-being and, more specifically, the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, moderate-vigorous Physical exercise, physical activity and sufficient rest. Before the industrial revolution, fitness was the capacity to carry out the day's activities without undue fatigue. However, with automation and changes in lifestyles physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations.

Nowadays, there is awareness in mankind to achieve the total fitness in life which can be achieved through proper exercise, nutrition and wellness. Wellness is generally used to mean a healthy balance of the mind, body and spirit that results in an overall feeling of well-being.

To achieve this we take help of various learning resources available for us. Learning resources are texts, videos, software, and other materials that can be used to assist the users to meet the expectations for learning. As the researcher in the profession of Library and Information Science, the researcher has come across the various learning resources which are tangible and intangible resources like Books, CDs, journals, and also some online resources like eBooks, e-journals, websites software, mobile apps Blogs etc. There are some learning resources which give the practical knowledge like fitness centres, trainers, nutritionist, doctors etc. Before using these resources, the need, authenticity, usefulness should be checked. In this paper the researcher has given brief information about the various learning resources available and the use of the same in our main motto “to achieve fitness and wellness.” I do hope this information will be useful to a layman as well as to students, teachers and researchers in the field of Physical Educations and Sports.

**Keywords:** Physical Fitness and Wellness, Learning Resources in Sports and Physical Education

### Introduction

“A fit nation is an asset and weak nation a Liability (Uppal, 1986)” as per this saying of researcher it is self-evident that the fit citizens are Nation's best assets and weak ones its liabilities. It is therefore the responsibility of every country to promote physical fitness of its citizens because physical fitness is the basic requirement for most of the task to be undertaken by an individual in his daily life. Physical fitness is a general state of health and well-being and, more specifically, the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, moderate-vigorous Physical exercise, physical

activity and sufficient rest. Before the industrial revolution, fitness was the capacity to carry out the day's activities without undue fatigue. However, with automation and changes in lifestyles physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations.

Nowadays, with the new developments in technology three additional factors – nutrition, stress and environment- have significantly changed our lives and have had negative effects on human health. Fatty foods, sweets, alcohol, tobacco excessive stress and pollution in general have determinable effects on people. But, it is necessary to make awareness in mankind to achieve the total fitness in life which can be achieved through proper exercise, nutrition and wellness. Wellness is generally used to mean a healthy balance of the mind, body and spirit that results in an overall feeling of well-being

#### **Definitions:**

##### **Physical Fitness:**

The American Medical defines fitness as "fitness as the general capacity to adapt and respond favourably to physical effort. This implies that individuals are physically fit when they can meet ordinary as well as unusual demands of daily life safely and effectively without being overly fatigued and still have energy left for leisure and recreational activities."

##### **Wellness:**

The World Health Organization defines wellness as "...a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."

##### **Physical Fitness and Wellness:**

A person who is fit is capable of living life to its fullest extent. Physical and mental fitness play very important roles in your lives and people who are both, physically and mentally fit are less prone to medical conditions as well. To improve overall fitness, an individual has to participate to specific programme to develop each one of the four components

- i. Cardiovascular endurance
- ii. Muscular Strength and endurance
- iii. Flexibility
- iv. Body Composition

Nevertheless, after initial fitness boom swept across the world in the 1970s, it became clear that just improving the four components of physical fitness alone would not always decrease the risk for diseases and insure better health. As a result, a new concept developed in the 1980s that goes beyond the basic comments of fitness. The new concept is referred to as "Wellness" which can be defined as the constant and deliberate efforts to stay healthy and achieve highest potential for well-being.

The term wellness implies an all-inclusive umbrella composed of a variety of activities aimed at helping individuals recognise components of lifestyle that are detrimental to their health and implement principles and programme to change their behaviour so as to improve quality of life and achieve total well-being. This new concept goes far beyond absence of diseases and optimal physical fitness, proper nutrition, spirituality, stress management, substance abuse control, disease prevention and risk reduction, physical examinations, health education and environmental support.

**Learning Resources in Fitness and Wellness:**

Nowadays, there is awareness in mankind to achieve the total fitness in life which can be achieved through proper exercise, nutrition and wellness. Wellness is generally used to mean a healthy balance of the mind, body and spirit that results in an overall feeling of well-being.

To achieve this we take help of various learning resources available for us. LEARNING RESOURCE MATERIALS “Tools or aids, includes both print and non print media that are intended to supplement, rather than replace, actual teaching.” Learning resources are texts, videos, software, and other materials that can be used to assist the users to meet the expectations for learning. As a professional of Library and Information Science, the researcher has come across the various learning resources which are tangible and intangible resources like Books, CDs, journals, and also some online resources like eBooks, e-journals, websites software, mobile apps Blogs etc. There are some learning resources which give the practical knowledge like fitness centres, trainers, nutritionist, doctors etc. Before using these resources, the need, authenticity, usefulness should be checked. One researcher defines learning resources as

“Learning Resources” will refer to any person(s) or any material (whether acquired or locally produced) with instructional content or function that is used for formal or informal teaching/learning purposes. Learning resources may include, but are not limited to, print and non-print materials; audio, visual, electronic, and digital hardware/software resources; and human resources.

**Selecting Learning Resource Materials:**

To achieve the physical fitness and wellness are various learning resources are available. Information can come from virtually anywhere — media, blogs, personal experiences, books, journal and magazine articles, expert opinions, encyclopaedias, and web pages — and the type of information you need will change depending on the question you are trying to answer. Learning materials may be developed or selected from existing resources. As developments in cognitive science have helped us understand more about how learners construct knowledge, there has been a growing trend towards the greater use of raw data, primary sources and manipulative and interactive learning resource materials. They also need to align with the needs, interests and abilities of the learners. Thus while selecting the learning resources the following points should be considered:

Ability and interest of user:

To select resources that will enrich and support the theoretical knowledge, taking into consideration the diversity of interests and perspectives, and the variety of abilities, learning styles and maturity levels of the learners.

Authenticity:

To select resources that will stimulate growth in factual knowledge, literary appreciation, aesthetic values, and knowledge of societal standards.

Use of learning resources:

To select resources that positively and accurately reflect diverse perspectives on controversial issues, ensuring that learners have an opportunity to develop, under guidance, the practice of critical analysis and the ability to make informed judgments in their daily lives.

Social Factors:

To select resources representative of gender, appearance, sexual orientation, ability/disability, belief system, family structure, race and ethnicity, and socio-economic

status.

Cost:

To check the cost effectiveness of the learning resources to the user community by comparing with other available resources.

### **Various Types of Learning Resources:**

**Learning Resources** will help you to find information more easily and quickly, provided you know how to use them effectively and efficiently. . “These are the tangible substances and real objects that provide the audio and/or visual component necessary for learning.”

They are available in both print (*books, maps, periodicals or journals, Training Manuals etc.*) and non-print (*computer databases, Internet Websites, DVD, CD, softwares, mobile apps etc.*) formats. Sometimes, you can actually find better information faster by using print tools, even though we usually think of non-print as being the faster source. With practice, you'll know when it's best to use each format.

### **Print Learning Resources:**

#### 1. Books:

Books cover virtually any topic, fact or fiction. For research purposes, you will probably be looking for books that synthesize all the information on one topic to support a particular topic. It gives in-depth knowledge. There are various types of books available on different areas of Sports and Physical Education.

For Fitness and Wellness there are no. of books available, for examples

1. Hoeger W.W.K. (1989). Lifetime Physical Fitness & Wellness: A Personalized Program. 2<sup>nd</sup> Ed. Colorado: Morton Publishing Company
2. ACSM (2013), ACSM's Guidelines for Exercise Testing and Prescription, Ninth Edition. American College of Sports Medicine (ACSM)

#### 2. Journals:

A journal is a collection of articles usually written by scholars in an academic or professional field. An editorial board reviews articles to decide whether they should be accepted. Articles in journals can cover very specific topics or narrow fields of research. The Journal can be referred

- when doing scholarly research
- to find out what has been studied on your topic
- to find bibliographies that point to other relevant research

Examples:

1. ACSM's Health and Fitness Journal
2. Vyayam Vidnyan by Hanuman Prarsarak Mandal, Amaravati

#### 3. Reference Works:

A Reference Work is a book or periodical to which one can refer for confirmed facts. The information is intended to be found quickly when needed. Reference works are usually referred to for particular pieces of information, rather than read beginning to end.

A reference work can be used when

- when looking for background information on a topic
- when trying to find key ideas, important dates or concepts

Examples:

- Encyclopaedia e.g.-Encyclopedia of Sports & Fitness Nutrition Paperback by Liz Applegate, Dec 2002

- Dictionaries - It gives meaning and definitions. e.g. -Dorland's Illustrated Medical Dictionary
- Directories - A fitness directory contains all services and information with products for fitness, health clubs and health professionals, gyms, physical education, personal trainers, exercise equipment. e.g.- Directory of Health and Fitness

#### 4. Government Publications:

It is an official publication issued by a government publishing facility

Examples:

- Statutes - e.g.-Documents on health -2006 report on the global AIDS epidemic, 30 may 2006
- Acts - e.g.- Mental health care act 17/2002

### Non Print Sources

#### 1.E-books:

E-Book is an *electronic* version of a traditional print book that can be read by using a personal computer or by using an eBook reader. (An eBook reader can be a software application for use on a computer, such as Microsoft's free *Reader* application, or a book-sized computer that is used solely as a reading device, such as Nicomedia's Rocket eBook.) Users can purchase an eBook on diskette or CD, but the most popular method of getting an eBook is to purchase a downloadable file of the eBook (or other reading material) from a Web site (such as Barnes and Noble) to be read from the user's computer or reading device. Generally, an eBook can be downloaded in five minutes or less.

*There are some websites which give E-books either pdf version or directly you can see the E-books These sites gives E-books either free or with some charges*

e.g. [www.bookrix.com/books:health-fitness,id:20,sort:2.htm](http://www.bookrix.com/books:health-fitness,id:20,sort:2.htm)

[www.ebooks.com/subjects/health-fitness](http://www.ebooks.com/subjects/health-fitness)

[www.e-booksdirectory.com](http://www.e-booksdirectory.com) > Health, Mind & Body

#### 2. E-journals

**Electronic journals**, also known as **E-journals**, and **electronic** serials, are scholarly **journals** or intellectual magazines that can be accessed via **electronic** transmission. In practice, this means that they are usually published on the Web.

An increasing number of e-journals are available as open access journals, requiring no subscription and offering free full-text articles and reviews to all. Individual articles from electronic journals may be found online for free in an ad-hoc manner: in working paper archives; on personal homepages; and in the collections held in institutional repositories and subject repositories. Some commercial journals find ways to offer free materials. They may offer their initial issue or issues free, and then charge thereafter. Some give away their book reviews section for free. Others offer the first few pages of each article for free.

e.g. **1. *Journal of Exercise Science & Fitness* - Official journal of the SCSEPF, HKPFA and HKASMS**

**2. ACSN's Journal of Health and Fitness by American College of Sports Medicine (ACSM)**

#### 3. CDs

**Compact disc (CD)** is a digital optical disc data storage format. The format was originally developed to store and play only sound recordings but was later adapted for storage of data (CD-ROM). Several other formats were further derived from these, including write-once audio and data storage (CD-R), rewritable media (CD-RW), Video Compact Disc

(VCD), Super Video Compact Disc (SVCD), Photo CD, PictureCD, CD-I, and Enhanced Music CD. Audio CDs and audio CD players have been commercially available since October 1982.

e.g. 1. *The Diet Code: Revolutionary Weight Loss Secrets from Da Vinci and the Golden Ratio*

2. *21-Day Weight Loss Kickstart*

#### 4. DVDs

**DVD** ("**digital versatile disc**" or "digital video **disc**") is a digital optical **disc** storage format invented and developed by Philips, Sony, Toshiba, and Panasonic in 1995. It contains audio-video information which users can use it for learn practical session about any concept.

e.g. 1. *4 DVD Disc lot set - Tai Chi workout fitness Health & Wellness –*

**2. Brain Fitness Frontiers DVD**

**3. A Meditation for Relaxation & Wellness (Health Journeys)**

4. Software

**Computer software** also called a program or simply **software** is any set of instructions that directs a computer to perform specific tasks or operations. Computer software consists of computer programs, libraries and related non-executable data (such as online documentation or digital media). Computer software is non-tangible, contrasted with computer hardware, which is the physical component of computers. Computer hardware and software require each other and neither can be realistically used without the other.

e.g. 1. *Wellness Scheduling Software*

2. *Bodywork Buddies*

#### 5. Websites

The Web allows you to access most types of information on the Internet through a browser. One of the main features of the Web is the ability to quickly link to other related information. The Web contains information beyond plain text, including sounds, images, and video.

The important thing to do when using information on the Internet is to know how to evaluate it! It to find current information. It helps to find current information and also to find both expert and popular opinions. It useful to find information about hobbies and personal interests.

e.g. Type any word in search engines like Google, MSN etc. and you will come across various website , e.g. "+Fitness"

#### 6. Databases

A database contains citations of articles in magazines, journals, and newspapers. They may also contain citations to podcasts, blogs, videos, and other media types. Some databases contain abstracts or brief summaries of the articles, while other databases contain complete, full-text articles.

**e.g. 1. PubMed**

PubMed comprises more than 25 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

**2. Kinesiology: Health & Fitness**

**This guide provides resources, strategies, and information on conducting research in Kinesiology.**

## 7. Blogs

A Blog is regularly updated website or web page, typically one run by an individual or small group that is written in an informal or conversational style.

- e.g. 1. Wellness Today by Institute of Integrative Nutrition  
2. Anytime Fitness Blog

## 8. Personal Trainer or Fitness Training Centre

A **personal trainer** is a fitness professional involved in exercise prescription and instruction. They motivate clients by setting goals and providing feedback and accountability to clients. Trainers also measure their client's strengths and weaknesses with fitness assessments. These fitness assessments may also be performed before and after an exercise program to measure their client's improvements in physical fitness

- e.g. 1. FitnessSmith Personal Trainer  
2. Ninad Channa – Personal Physical Trainer in Mumbai

**Fitness Training Centre** is defined as A health club (also known as a fitness club, fitness centre, health spa, and commonly referred to as a gym) is a place which houses exercise equipment for the purpose of physical exercise.

- e.g. 1. Talwalkar's Training Academy in Mumbai  
2. Golds Gym in Mumbai

### Conclusion:

Thus the above learning resources are very useful to students, teachers, researchers, personal trainers, coaches in the field of Physical Education and Sports. The more emphasis in this paper is given on the "Fitness and Wellness. I hope this paper give encouragement to the above persons to start using the Learning Resources to get information and in-depth knowledge about the "Fitness and Wellness "which will supplement their present knowledge and they will able to make the use of the same effectively and efficiently in their profession.

Thus, we should remember that treat your body like the most amazing machine ever designed, because that's what it is! Fuel it properly, challenge it, give it some rest, listen to it and be grateful for it ever day!

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## Effect of Pranayamas and Mudras on Peak Expiratory Flow Rate of Junior College Students

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### Abstract

Pranayama and Mudra has an important role for improving Peak Expiratory Flow Rate. (Lungs Function). There is a great scope and need for research in Physical Education for the Pranayama & Mudras for the development of Peak Expiratory Flow Rate. (Lungs Function) of Junior College Boys. There view of literature does not indicate any studies to evaluate the Effect of Pranayamas & Mudras for the development of Peak Expiratory Flow Rate. (Lungs Function) of Junior college boys. A sample of 60 (n=60) male student saged 16 to 19 years were selected from Bunts Sangha's Artahi Shashi Kiran Shetty Junior college, Kurla, Mumbai. These selected subjects were divided into two groups i.e. experiment and control group with equal number of subjects assigned randomly in each group. Group "A" = Yogic Practices Group (Experimental Group) Group "B" = Non- Yogic Practices Group (Control Group). Experimental group received Pranayamas and Mudras practice for a period of 6 weeks. Control group did not participate in Pranayamas and Mudras practice. At the baseline and after training intervention, Peak flow meter test were used to assess the levels of Peak Expiratory Flow Rate (Lungs Function). Data were analyzed by using One Way ANCOVA test. The results revealed that Effect of Pranayamas & Mudras helped to improve Peak Expiratory Flow Rate (Lungs Function) Status as compared to control group. The findings conclude that Effect of the Pranayamas & Mudras were found to be helpful to improve Peak Expiratory Flow Rate (Lungs Function).

**Keywords:** Pranayamas, Mudras, Peak Expiratory Flow Rate, Lungs Function

### Introduction:

Various research finding have proved the efficacy of yogic practices in building healthy mind and body, as well as, the amiable culture in students' Yoga aims for the integrity of the body, mind and spirit through a system of Asanas, Pranayamas, Mudras, Bandhas, Kriyas and Meditation. With yoga you can attain a balance (Physical and Mental) in your life as well as an inner peace to your body. The Rishis and yogis engaged themselves in the pursuit of knowledge and study the universe. Inspired by nature and its wonders, they created the Vedas and the Upanishads. They also delved deep into the inner nature of man and came about the stunning knowledge of Ayurveda, Yoga, Mudras and many other sciences. Yoga has been recognized as an integral part of our culture from ancient time. Yoga is the arts of right living. It is based on the tenets of "simple living and high thinking." Yoga is a way of life, an integrated system of education for the body, mind and inner spirit.

### Objectives of the Study:

The objectives of the study were as under:

- 1 To compare the adjusted Mean Scores of Peak Expiratory Flow Rate (Lungs Function) of Junior College Boys of Yogic Practices Group and Non-Yogic Practices Group by taking pre-Peak Expiratory Flow Rate (Lungs Function) as Covariate



**Hypotheses of the Study:**

The hypothesis sought to be tested are as follows:

**Ho<sub>1</sub>:** There is no significance difference in adjusted Mean Scores of Peak Expiratory Flow Rate (Lungs Function) of Junior College Boys of Yogic Practices Group and Non-Yogic Practices Group by taking pre-Peak Expiratory Flow Rate (Lungs Function) as Covariate.

**Materials and Method**

**Selection of Sample:** A sample of 60 (n=60) male students was selected belonging to Bunts Sangha's Artahi Shashikiran Shetty Junior college, kurla, Mumbai, they was divided in two equal groups. Experimental group received Pranayamas and Mudras practice for a period of 6 weeks. Control group did not participate in Pranayamas and Mudras practice

Group "A" = Yogic Practice Group (Experimental Group)

Group "B" = Non- Yogic Practice Group (Control Group)

**Research Design: (Non-equivalent groups design)**

The design of the experiment had been planned in three phase's viz., Phase – I: Pre-test, Phase – II: Training or Treatment, and Phase – III: Post-test. The subjects in the experiment were divided into two groups' one Yogic Practice Group i.e. (Experimental Group) and one Non- Yogic Practice Group i.e. (Experimental Group); each group consisted of 30 subjects. Yogic Practices Group i.e.(Experimental Group) was given Pranayamas and Mudras practice Yogic Practices Training Program for the period of six weeks. The total training programme of the experimental group was of 6 week, 4 days in a week i.e. Monday, Wednesday, Friday and Saturday except on holiday, in the morning session 1hour from 10:30am to 11:30am.

**Selected Variables (Dependent Variables):** Peak Expiratory Flow Rate/ Vital Capacity (Lungs Function).

**Tools/ Instruments****DEPENDENT VARIABLES**

The following physiological parameters are considering as dependent variables of the study.

DEPENDENT VARIABLES	TEST	CRITERION MEASURES
<ul style="list-style-type: none"> <li>Vital capacity/ respiratory track capacity/Peak Expiratory Flow Rate. (Lungs Function)</li> </ul>	Peak flow meter test	Mmhg

**Treatment: (Independent Variables)**

The following Pranayama & Mudras are treated as Yogic Training Program for the period of 6 weeks.

No.	Pranayama	Mudras
	Deep Breathing (worming-up)	
1	Kapalbhati (shudhhikriya)	Jnana Mudra
2	Anuloma-viloma	Akash Mudra
3	Suryabhedana	Pruthvi Mudra
4	Bhastrika	Varun Mudra
5	Omkar	Prana Mudra
6	Bhramari	Apana Mudra

7	Sheetali	Vayu Mudra
8	Seetkari	Shoonya Mudra
9	Ujjayi	Surya Mudra
		Linga Mudra
		Bramha Mudra
		Yogmudra

### Statistics:

Since, there were two group for this experimental study viz. Yogic Practices Group and Non-Yogic Practices. Where in the researcher has decide to compare mean score of **Peak Expiratory Flow Rate (Lungs Function)** by taking pre Yogic Practices (Pranayama & Mudras) Training Program pretest as covariate in order to see the holistic effect of Yogic Practices (Pranayama & Mudras)training program intervention junior college boys. One Way ANCOVA test was appropriately used for data analysis.

### Results and Discussion:

- *Group wise comparison of effect of Yogic Practices Group and Non- Yogic Practices Group on Peak Expiratory Flow Rate (Lungs Function) of Junior College Boys The mean achievement in Peak Expiratory Flow Rate (Lungs Function)due to Integrated Pranayamas and Mudras Yogic Practices Training Program Module, as obtained from ANCOVA test, revealed that –*

**TABLE**

**Summary of One Way ANCOVA of Peak Expiratory Flow Rate (Lungs Function)by taking Pre-Peak Expiratory Flow Rate (Lungs Function)as Covariate**

Source of Variance	df	SSy.x	MSSy.x	Fy.x	Remark
<b>Group</b>	1	43082	43082	45.60	p<0.01
<b>Error</b>	56	52903	944		
<b>Total</b>	59				

From the above Table it can be seen that the adjusted F-value is 54.41 which is significant at 0.01 level with df =1/56 when Pre-Peak Expiratory Flow Rate (Lungs Function) was taken as covariate. It shows that adjusted mean scores of Peak Expiratory Flow Rate (Lungs Function) of Junior College Boys of Yogic Practices Group and Non-Yogic Practices Group differ significantly when pre-Peak Expiratory Flow Rate (Lungs Function) was taken as covariate. Thus, the Null Hypothesis that there is no significant difference in adjusted mean scores of Peak Expiratory Flow Rate (Lungs Function) of Junior College Boys of Yogic Practices Group and Non-Yogic Practices Group by taking pre-Peak Expiratory Flow Rate (Lungs Function) as covariate is rejected. Further the adjusted mean score of Peak Expiratory Flow Rate (Lungs Function) of Yogic Practices Group is 479.48 which is significantly higher than that of Non- Yogic Practices Group where adjusted mean score of Peak Expiratory Flow Rate (Lungs Function) is 416.67. It may, therefore, be said that Yogic Practices Group was found to be effective in improving Peak Expiratory Flow Rate (Lungs Function) of Junior College Boys than that of non-Yogic Practices Group where Expiratory Flow Rate (Lungs Function) as covariate.

These results help to interpret that the effect of Yogic Training Program (Pranayama & Mudras) were useful to improve Peak Expiratory Flow Rate / Vital Capacity (Lungs Function). However, the Yogic Training Program (Pranayama & Mudras) has been recorded as more effective in improving **Peak Expiratory Flow Rate / Vital Capacity (Lungs Function)** of the Junior college Boys.

#### **Conclusion**

The findings conclude that effect of Yogic Training Program (Pranayama & Mudras) were found to be helpful to improve Peak Expiratory Flow Rate (Lungs Function).

#### **Acknowledgement**

The investigators are grateful to the students who willingly participated in this study. They are also thankful to the authorities of college who gave permission to conduct this experiment.

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## Study of Motor Fitness through Yogic Exercise of College Girls

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### Abstract

The purpose of this study was to find out the college going girls' motor fitness through yogic exercise age of group 16 to 17. An academic performance of college going girls is depending on their efforts they put during the time of study. Many collage going girls feel they can't really find the time to keep up on their personal fitness through yogic exercise is needed more is a desire to succeed and have concentrated efforts towards achieving that goal. It remains an important point to see if such factors do really affect overall performance of their fitness.

This research will aid in substantiating common belief about importance of yogic exercise in achieving fitness performance. Study focuses on College going girls, their degree of focus on physical activity and overall yogic exercise impact on fitness. Girls with excellent, very good, good, satisfactory and poor performance may look at this study from the perspective of helping them adopt a healthy way of life.

These studies examine the College going female students. These 40 subjects were selected randomly from college level girls for this study. The total sample size consisted of college going female students and collected data from them will clearly indicate the result of this study.

The yogic exercises may contribute significantly the fitness level of college going girls.

### Introduction

The purpose of this study is to find out the fitness through yogic exercise impact on college going girls. Intelligence influences different aspects of personality in many different ways. In fact, intelligence is sometimes considered to be a part of personality. This issue will probably always be debated. The main point to bear in mind is that both intelligence and personality are prominent individual factors which also have relation with fitness and diet. Academic performance of a student is depending on their fitness their personality; what and how they present them self. What is there physical capacity to do their study for prolong period of time is depend on their fitness. Fitness is that state which characterizes the degree to which human is able to function efficiently. To lead a happy, relaxed and successful life, men have to develop physical fitness, because it is necessary for the proper functioning of the body and the system. While fitness in sports arena is important and functional according to the activity or the game that one undertakes, health becomes a basic necessity to every woman that brings us to health related fitness.

### REVIEW OF RELATED LITRATURE:

In writing the literature review, our purpose is to convey to our readers what knowledge and ideas have been establish on a topic so far.

**Mody (2010)** assessed the cardio-respiratory and metabolic responses of four rounds of Surya Namaskar, a typical amount performed by practitioners, to determine its potential as a training and weight loss tool. Six healthy Asian Indian men and women (18–22 years) who

had trained in Surya Namaskar for over two years participated in the study. Testing was completed in a single session lasting about 30 min. To measure heart rate and oxygen consumption while performing the four rounds, participants were connected to a heart rate monitor and the Oxycon Mobile Metabolic System. Regular practice of Surya Namaskar may maintain or improve cardio-respiratory fitness, as well as promote weight management.

**Karunakaran and Ramesh (2009)** conducted study on effect of raja yoga and pranayama on selected physical and physiological variable of adults. The objectives of this study were to find out the physical and physiological variable. The selected variables of Flexibility in measure the sit and reach box. For this study thirty boys in the age group of 23 to 27 years were selected form Pondicherry University, Pondicherry. The Experiment group had a significant improvement on the selected physical and physiological variables except systolic and diastolic blood ressure than control group.

**Hayes M and Chase S. (2010)**done a research on Prescribing Yoga”. The study contains the following. More than 15.8 million people in the United States now practice some form of yoga, and nearly half of current practitioners stated they began yoga ractice as a means of improving overall health. More broadly understood in a modern context, yoga is a set of principles and practices designed to promote health and wellbeing through the integration of body, breath, and mind. This article outlines the history of yoga and describes several forms, including asana-based yoga, which is becoming popular in the United States. Research findings related to use of yoga as a therapy for various health problems are reviewed. Guidelines for finding a yoga teacher are offered, as are a number of book and Internet sources of further information.

#### **METHODOLOGY**

This was a experimental method to draw the conclusion to study of fitness level trougnyogic exercise of college girls. Forty College going girl who student were pursuing F.Y.J.C.Commerce faculty age of girls 16 and 17 and willing to be part of this study was chosen for thestudy as a subjects. These Forty subjects were selected randomly from F.Y.J.C commerce girls’ students.

Fitness variables selected for this study were Flexibility agility power endurance and abdominalstrength.The selected girls students were divided into two equal groups 20 in each group as control groupand experimental group before starting the training of yogic exercises the subject of both thegroups control and experimental were tested for selection fitness variables like sit and reach forspeed, shuttle run for agility, vertical jump for power, sit-ups for abdominal strength and1500 meters run and walk for endurance. After the test over the subjects of control group were havingtheir regular rutting were as the subjects of experimental group were engaged in selected yogicexercises for forty five minutes the in morning session for six weeks.

After completing the training period for six weeks again the subjects of both the groups controland experimental were re tested for the same fitness variables as before starting the trainingperiod.

The row data of both the groups for before and after training period was collected and analyzewith help of T test using spss package.

**COMPARISON OF EXPERIMENTAL GROUP MEAN GAIN ON PRE AND POST TESTS OF FITNESS VARIABLES**

VARIABLES	PRE TEST MEAN±SD	POST TEST MEAN±SD	MEAN DIFFERENCE	SEm	t''	Significance
Sit-Ups	22.3/1.11	23.9/1.37	1.6	0.45	3.55	p<0.01
Sit and Reach	23.5/1.2	25.3/1.19	1.8	0.4	4.50	p<0.01
Vertical Jump	23.9/1.16	24.8/1.11	0.9	0.5	1.80	p>0.05
Shuttle Run	10.57/0.17	10.27/0.13	0.3	0.1	5.45	p<0.01
1500 Meters Run	504.8/2.3	503.9/1.96	0.9	0.8	1.13	p>0.05

**Findings:**

From the above table it was observed that out of five dependent variables selected for the study, three have shown significant improvement when the mean score was compared for the experimental group during pre and posttests.

According to the researcher this improvement may be occurred as the selected asanas are beneficial for one or the other selected fitness variables. But this result can be again verified by doing analysis on posttests scores of both the groups experimental as well as control during their post test scores. The researcher selected the asanas only after finding their benefits on flexibility, strength, endurance, agility and also abdominal strength.

**MEAN GAINS IN POST TEST OF SELECTED FITNESS VARIABLES OF CONTROL AND EXPERIMENTAL GROUPS**

VARIABLES	GROUPS	MEAN GAIN	DIFFERENCE	SEm	t''	Significance
Sit-Ups	Control Vs Experimental	22.8/23.9	1.10	0.55	2.00	p<0.05
Sit and Reach	Control Vs Experimental	23.6/25.3	1.70	0.38	4.47	p<0.01
Vertical Jump	Control Vs Experimental	23.9/24.8	0.90	0.5	1.80	p>0.01

<b>1500 Meters Run</b>	Control Vs Experimental	504.8/503.9	0.90	0.72	1.25	p>0.05
<b>Shuttle Run</b>	Control Vs Experimental	10.36/10.27	0.09	0.04	2.25	p>0.05

**Findings:**

From the above table where the analysis was done on the posttests scores of control and experimental groups, it was observed that out of five selected fitness variables four have shown significant improvement while the variable endurance which was measured with help of 1500 meters run walk test did not show significant improvement.

As it was also observed in the above table where endurance and leg strength did not improve significantly supports the posttest comparison. The selected yogic exercises were effective for the improvement of flexibility, strength, agility and abdominal strength. Further studies can be undertaken by changing the yogic exercises as well as subjects of other age group.

**Conclusion:**

In conclusion, the present paper suggests that yogic exercises were improved of motor fitness through yogic exercises of college girls.

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## Erasing Criminality with Enrapturing Yogic Experiences: A Possible Solution to Crime

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### **Abstract:**

My paper titled “Erasing Criminality with Enrapturing Yogic Experiences: A Possible Solution to Crime” presents significant viewpoints about how yoga can be a possible solution to crime. Deep breathing techniques, relaxing methods, meditation help to reduce aggressiveness among criminals and yogic practices can also generate anger management strategies. Anger release and expulsion of hate can sow the seeds of love. Low self esteem and egoistic nature can be tackled as spiritual training promote inner goodness.

Criminality is fatal to human society as it can wipe off the existence of mankind. Crime has penetrated in all spheres of life and it has become a global disease. The basic framework of society has been disrupted due to the criminal monstrosity that is swallowing all notions of human goodness.

However, this monstrosity has led to the disappearance of this beautiful spark of ‘goodness’- a part of the angelic self that has almost disappeared in the darkness of their evil nature. Now, the need of the hour is to help them shed this monstrous self like snake’s skin. But, to bring about this self-realization is difficult as their hearts are hardened to the core and a lot of spiritual transformation is possible through enriching yogic experiences. A new hope in this direction is therefore a complete transformation of the criminal from the Demonic to the Yogic.

The journey of the demonic to the yogic helps him oscillate from troubled areas of his psyche to let him recognize his inner spiritual domains and feel the beauty of goodness in his self. This spiritual essence connects his soul to God and to the whole universe. This enrapturing experience transforms him to feel the joy of existence. Hence Criminality will have no place in his life as he learns to harness the magnificence of divine powers.

Even all narcissist feelings of egoistic desires slowly dissolve to understand the needs of others. Yoga helps him recognize his individuality and his responsibility towards other human beings. Yoga touches the chords of his conscience to reduce bouts of criminality so that he understands that he is a part of the cosmic self and he establishes spiritual communion with the celestial that cleanses his soul.

The soul-cleansing dynamics heals the troubled mind tormented by the guilt of crime. According to Sarah Wilkins, “Yogic tradition offers three basic remedies for guilt: Avoid it by practicing ethical mindfulness, purify your psyche of the residue of old actions, and practice self-forgiveness.” Yogic practices enforce a strong sense of discipline to help the body overcome desire for excess food, sex and money and also meditation helps to erase fatal memories that restrict his moral development. His psychic energies are controlled because yoga exercises as Pranayam, meditation and chanting of ‘OM’ help to soothe his spirit and free him from the vengeance of conscience.

Also the raw wounds inflicted on their souls can make them worse criminals, but the healing power of Yoga helps him tackle anger, depression, stress and anxiety. It extinguishes burning fumes of hatred so that he understands the futility of revenge. His practical abilities are more sharper as he now understands how yoga has facilitated him to make his life more eventful and constructive rather than living the shameful moments of crime.



Hence Yoga training to criminals inside the walls of prisons has become a worldwide practice. The prisoners are given Yoga training to let them release their anger as this practice prevents murders committed at the spur of the moment. Deep breathing methods have been recommended even in the olden days. Yoga suggests deep breathing exercises to relax the mind. The humming sound and Nadi Shodan are some more practices to put their tumultuous minds at rest.

Anger Management is helpful as the criminal always has memories of the victim or the oppressor flashing in his mind. Hence controlling his passions through breathing exercises helps him to release his anger instead of suppressing it. With learning to manage anger, he can also deal with the most sporadic incidents of his life refraining from spasms of anger. This helps to avoid harsh consequences as murder/ homicide is, in most cases, the result of a volatile situation and the inability to control anger.

Yoga is not only about anger- release and freedom from guilt but it also has another challenging exercise- forgiveness. It may not be easy but conquering revenge with the spirit to forgive is a gift of Yoga. It is a boon to mankind as Revenge is the root cause of murder but if criminals develop the 'letting go' nature then they forgive themselves and others. Hence "Letting go is something that consciously and unconsciously you learn by practicing yoga. The gesture of forgiveness is included in the act of exhaling. The expiration is the time when you let go, no worries about the future because after exhalation is the inspiration."

This inspiration that yogic practices provide can sharpen the mental prowess of the prisoners. Their crime- plots, scheming techniques proves that their scrupulous moves are because of strong intellectual faculties. Yoga can develop the emotional aspect of their self bringing about an awakening of conscience so that they channelize their energies in the right direction. Their psychic energies along with their mental abilities can help their minds work for a greater cause- thus the destructive element diminishes all negative forces and he develops a more optimistic approach towards life.

Hence conspiracy to destroy now takes on the form of planning to create, something new for the welfare of mankind. Moreover, low self esteem among criminals is yet another cause of crime. Yoga makes them more humane by letting them establish a connection between the body-mind and the universe. Thus, yoga's tri-partite divine connection is the key to happiness.

Hence "At the University of Wisconsin, Richard Davidson, Ph.D., found that the left prefrontal cortex showed heightened activity in meditators, a finding that has been correlated with greater levels of happiness and better immune function. More dramatic left-sided activation was found in dedicated, long-term practitioners".

Yoga in Prison gives jailed criminals a sense of freedom, their burden of guilt may become lighter and inspirational yoga may help them overcome their wicked nature and to do something big in life. Making them rot in prisons and sentencing them to death or subjecting them to brutal punishment may make them feel more frustrated and they can hit back with a greater vengeance. So to remove bitterness from their hearts, it is important to sow seeds of love. Yogic Practices can, thus, create the desire to love one's own self, others and the whole universe .

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## Exploring Psychological Variables between Elite Male Basketball and Handball Athletes

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### Abstract

The psychology of moods and sport performance are closely linked, even if the exact nature of the relationship is still to be fully elucidated. The aim of this study was to examine the differences of mood between the Basketball and Handball athletes during the preparation for competition 2017. Forty (N=40) elite male athletes, twenty (N=20) from Basketball and twenty (N=20) from Handball athletes from Sri Lanka. age ranging from 18 to 32 years. Brunel Mood State (BRUMS) questionnaire was used to measure the level of mood between Basketball and Handball athletes during preparation for the competition. Result showed that there was no significant difference of moods (negative and positive) between Basketball and Handball athletes.

**Keywords:** Basketball, Handball, Elite, Athletes, Moods.

### Introduction

Mood state refers to “a situation specific, somewhat transient, psychological response to an environmental stimulus” (Cox, 2002).

Mood changes have been studied in a variety of settings, and considerable experiential and anecdotal evidence supports the existence of changes in mood states related to exercise. Psychologist and Psychiatrists rate exercise as the most effective technique for changing a bad mood; they are more likely to use exercise than other techniques to energize themselves (Thayer, Newman and McClain, 1994).

To ensure that this was the case, verified the comprehensibility of items by asking participants rate the relative ease in which participants could understand the meaning of the items. Found the 24-item 6-factor measure was supported through single and multisampling confirmatory factor analysis. It should be noted that the name of the scale was changed from the Profile of Mood States-Adolescents to the Brunel Mood Scale (BRUMS: Terry et al., 2003). Its name was revised as validation has been conducted among adults and restriction to adolescents was no longer appropriate. From herein the scale is referred to as the BRUMS. (Terry et al. 1999, 2003).

Peak sports performances are those magical moments when an athlete puts together both physically and mentally. The performance is exceptional, seemingly transcending ordinary levels of play (Jean Williams, 2000).

Vigor is the component of the positive mood and the other tension, depression, anger, fatigue and confusion is the component of negative mood. Positive mood is named as alertness and energize feeling while negative mood is classified to feeling of worthlessness and hopelessness. Getting in the right state of mood was seen by numerous as a critical piece of mental readiness for athletes. Inability to do as such is frequently displayed by competitors as an attribution to clarify competition results. (Lane, A. M., & Terry, P. C. 2005).

Mood as “Temporary feelings that are different in intensity and duration and last longer than emotions”. They consider mood as a factor involved in evaluating and interpreting a cognitive situation in past, present and future performances. Mood affects individuals’ cognition, behavior, successes and failures in external situations. In the two-dimensional classification, mood is classified into two categories of both positive (vigor) and negative (anxiety, depression, anger, fatigue and confusion). (Terry. 2005).

#### **Objectives:**

- (i) To study the mood between of Basketball athletes during the preparation for competition
- (ii) To study the mood of the Handball athletes during the preparation for competition
- (iii) To examine the differences of mood between the Basketball and Handball athletes during the preparation for competition.

**Hypothesis: H<sub>0</sub>:** There is no significant difference of mood between the Basketball and Handball team during the preparation for competition 2017.

**H<sub>1</sub>:** There is significant difference of mood between the Basketball and Handball team during the preparation for competition 2017

#### **Methodology**

##### **Selection of subjects**

To achieve the purpose of the study, a total of forty (N=40) participants were chosen for this study during preparation for international competition in Colombo. Out of 40 athletes, twenty (N=20) athletes were from Basketball and twenty (N=20) from Handball. The age of the athletes ranged from 18 to 32 years.

##### **Selection of test item**

The following psychological variable selected for this study.

The BRUMS has 24 items arranged into six subscales: anger, confusion, depression, fatigue, tension and vigor (Table 1), each with four items. The research participant selects, from a numerical rating scale of zero to four (0 = not at all, 1 = a bit, 2 = moderate, 3 = enough; 4 = extremely), the option they believe best represents the situation at that time, using questions such as “How do you feel now?”, “How have been feeling in the past week, including today?”, or “How have you been feeling?”. (Terry et al., 1999; Terry et al., 2003).

The items on each subscale are:

- Anger: annoyed, bitter, angry, bad-tempered
- Confusion: confused, muddled, mixed-up, uncertain
- Depression: depressed, downhearted, unhappy, miserable
- Fatigue: worn out, exhausted, sleepy, tired
- Tension: panicky, anxious, worried, nervous
- Vigor: lively, energetic, active, alert.

Table 1: Dimensions of BRUMS.

Dimension	Definition
Tension	State of musculoskeletal tension and worry.
Depression	Emotional state of despondency, sadness, unhappiness.
Anger	State of hostility, for others.
Vigor	State of energy, physical force.
Fatigue	State of tiredness, low energy.
Confusion	State of feeling stunned, instability in emotions.

#### **Data collection**

Test of a BRUMS Mood Scale, psychological questionnaire were explained and

complete instructions were given to all participants. Data was collected during training preparation of Basketball and Handball male athletes for international competition which training was held in Colombo.

### Statistical analysis

Independent t- test was used to determine the difference between elite male Basketball and Handball athletes. The proposed hypothesis was tested at 0.05 level of confidence. Beside this mean and standard deviation was also calculated, along with descriptive statistics (SPSS 22 version was used).

### Results and Discussions

To achieve the purpose of study data collected, was analyzed with statistical technique and results are presented in the followings.

Table 2:

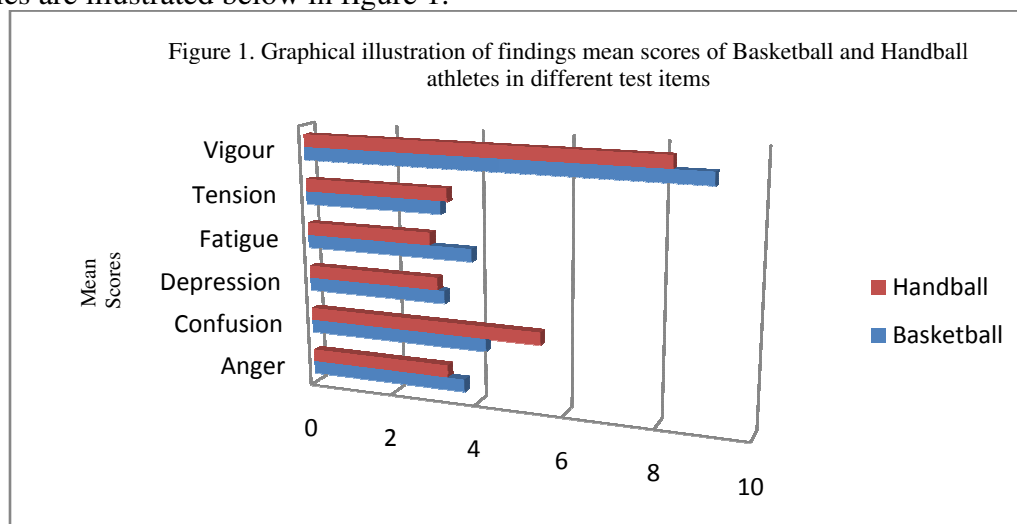
Mean and SD of Scores of elite male Basketball and Handball athletes in different variables.

S.NO.	Test Items	Basketball		Handball		Std. Error	Mean Difference	t - value
		Mean	SD	Mean	SD			
1	Anger	3.7	2.08	3.3	1.53	0.47	0.4	0.69
2	Confusion	4.2	2.78	5.45	2.56	0.62	1.25	1.48
3	Depression	3.25	2.67	3.1	0.97	0.6	0.15	0.24
4	Fatigue	3.9	2.12	2.95	2.01	0.48	0.95	1.45
5	Tension	3.2	2.16	3.35	1.81	0.51	0.15	0.23
6	Vigour	9.05	3.58	8.2	3.84	0.8	0.85	0.72

Degree of freedom (38) = 2.02

\*Significant at 0.05 level of confidence

For the purpose of the present analysis t-test was applied as the result was tested for significance 0.05 level along with descriptive statistics (SPSS 22 version was used). Table 1 shows the descriptive statistics and t- value of various variables tested on the samples, significant difference was not seen in anger, confusion, depression , fatigue , tension , vigour as calculated 't' value were 0.69, 1.48, 0.24, 1.45, 0.23, 0.72 respectively which was not higher than the tabulated 't' value with 0.05 level of significance. The mean scores of the variables are illustrated below in figure 1.



**Conclusions**

The findings of this study indicated that there was no significant difference of mood between the Basketball and Handball team during the preparation for competition 2017. As pointed by Lane and Terry. (2005). that except vigour which was known as a positive mood, the other five main factors were considered negative psychological mood in athletes. Hence, the present study results showed that the mean score of positive mood in which there was no significance difference between Basketball and Handball athletes. That additional to their better performance they showed a more positive mood helping them to win the game. Result also showed that there were different levels of negative mood (i.e., anger, confusion, depression, fatigue, and tension) in which there is no significance difference between Basketball and Handball athletes during preparation for the competition. Athletes who have higher vigour entering into a competition are more likely to be successful. The present results indicated that the positive mood can predict positive performance and vice versa.

Finally, there was no significance difference in the psychological variables of negative mood and positive mood between Basketball and Handball.

**Acknowledgements**

The authors would like to thank respective federation, coaches and athletes for the support and cooperation in completing this study.

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## A Study of Effect of Yogic Practices on Psychological Variable of Junior College Girls

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### Abstract

The purpose of this study is to find out the effect of duration and different yogic practices programme on selected psychological variables like stress. 80 Junior college girls were selected randomly with the help of parallel group method of experimental design for the study, from Jai hind college Mumbai. The selected 80 subjects were divided randomly in to two groups. Experimental group and control group each group consist of 40 subjects. For this study the researcher used pre-test, post test and re-test design and conducted twelve weeks for six days in a week. The collection of data of stress variable was measured by Dr. Zaki Akhtar's Student Stress Scale, which comprises of 51 items. The evaluated performance between pre-test, post test and re-test, was determine with the effect of yogic practices programme on stress level. For this analysis of One way repeated measure ANOVA test was applied to see the significance differences in stress level of experimental and control group. The analysis was done by using SPSS (A software Statistical package for Social Sciences) and the level of significance was set at 0.05. The result of the study was revealed that there was no significant change in stress of control group (Non yogic group) in pre-test post test and re-test. However, the result of the experimental group revealed that there was a significant change in stress of experimental group (Yogic practices group). This study shall be helpful to teachers of physical education and coaches in upgrading their knowledge about yogic practices, which in turn may help in improving holistic health.

**Key word:** yoga, psychological variable, stress, Junior College Girls

### Introduction

Today's living lifestyle is very fast from childhood. Everyone is busy in their routine work with their education, computers, phones and many others techno-gadgets. So they do not have time for their physical activities and for their proper diet so today's students life, is full of stress and strain, of tension and nervous irritability, of passion and hurry, of love and hate and also have been facing many Health related problems like back pain, stomach pain, depressions, anxiety, stress, some have postural deformities, obesity, hormonal changes or some hereditary problems. In today's competitive world everyone is facing many problems of physical, mental, social and spiritual so they develops many problems of physical fitness, Physiological, Psychological like stress, anxiety, sleep disorder, Bad social behaviour, poor concentration, etc..So many and these problems develops serious illness in body. One of the major themes of this study is to achieve the balance in our life in all types of aspects. If balance is there then every movement of our life will be stable, steady. If our body, mind is stable, strong then we can face any situation of our day today life. Today's girls are working in every field and they are managing every responsibility of their life. If they improve their holistic health it will also help them in their all-round development. Ultimately, it will be a support for

the society because every girl is the pillar of our society and if she is healthy, strong, then society becomes the same.

This study makes an attempt to investigate the effect of yogic practices programme on selected psychological variable like stress.

#### **Research Aim:**

The aim of the study is to observe the effect of the yogic practices on stress of Jr. College girls.

#### **Objectives of the Study:**

Following Objectives will be helped to achieve the Aim of present study.

- To Study the trend of effect of yogic practices on stress of the subjects of both groups.

#### **Yogic Practices**

##### **Asana:**

Hathasya prathamangaatvaadaasanam poorvamuchyate.

Kuryaattadaasanam sthiryamaarogyam chaangalaaghavam.

Prior to everything, asana is spoken of as the first part of hatha yoga. Having done asana, one attains steadiness of body and mind, freedom from disease and lightness of the limbs.

##### **Hatha yoga pradipika**

- Asana means a state of being in which one can remain physically and mentally steady, calm, quiet and comfortable. In the yoga sutra of patanjali there is concise definition of yogasanas: "Sthiram sukham aasanam", meaning that position which is comfortable and steady.
- Asana means holding the body in a particular posture to bring stability to the body and poise to the mind. Standing postures, Balancing and strength postures, Backward bending postures, Seated and Floor sitting postures, Supine and Prone Postures, Twisting Postures, Inversion postures. Sukhasana, Vajrasana, Padmasana, Pavanmuktasana, Bhujangasana, Dharurasana, Uttanavakrasana, Vajrasanastha, Yogamudra, Hastapadasana, Tadasana, Shalabhasana, utthita dwipadasana, Utthita Pashimotanasana, Trikonasana, Parivartita Chakrasana, Parvatasana, Vakrasana.
- **Pranayama:** Pranayama means control and regular of breath. Kapalbhata, Bhastrika, Bhramari
- **Bandha:** Bandha' (bond, arrest) is a term for the "body locks" Uddiyana Bandha.
- **Mudra:** The sanskrit word Mudra is translated as gesture or attitude. A mudra may involve the whole body or be a simple hand position. Gyan Mudra.
- **Kriya:** Kriya Yoga is a science that uses the flow of breaths to oxygenate the body and make it fit for meditation. **Kriya** (in Sanskrit "action, deed, effort") most commonly refers to a "completed action", technique or practice within a Yoga discipline meant to achieve a specific result. Kriya yoga is a meditation technique that quickly accelerates one's spiritual growth. Trataka, Kapalbhata
- **Meditation:** Meditation means awareness. Whatever you do with awareness is meditation. "Watching your breath" is meditation; listening to the birds is meditation. As long as these activities are free from any other distraction to the mind, it is effective meditation.
- **Relaxation:** Relaxation refers to the loosening of bodily and mental tension. Shavasana

**Psychological Variables:**

**Stress:** “A state of affair involving demand on physical or mental energy”.

**Methods**

80 Junior college girls were selected randomly with the help of parallel group method of experimental design for the study, from Jai hind college Mumbai. The selected 80 subjects were randomly divided in to two groups i.e. Experimental group and Control group. Each group consists of 40 subjects.

**Data collection**

The data was collected pertaining to check the effect of different durations of testing and different yogic practices programme on psychological variable like stress on experimental and control group . The pre testing data was taken before yogic practices programme and after six weeks of yogic practices programme post test was conducted and then yogic practices and duration was increased step by step by the researcher. At the end, after twelve weeks of yogic practices programme re-test was conducted.

**Statistical Analysis**

A one way repeated measure ANOVA was used to detect the mean differences between each three tests. For this purpose statistical package for social science (SPSS) version was used. The level of significance was set at 0.05.

**Results and Discussion****Influence on control group of non yogic practices on Stress of college girls**

A one way repeated measure AVONA was conducted to compare score on the Stress of college girls with statistics test at first week (pre test), six weeks (post test), and twelve weeks(re test).Wilks Lambda= .977,  $F(2,38) = .452$   $P = .640$ .

We have found that there is no significant change in pre test , post test and retest.

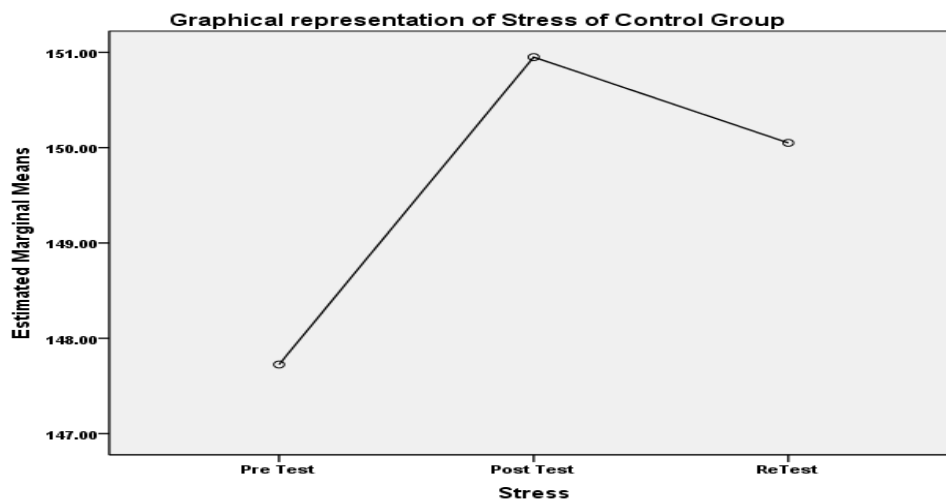
**Descriptive Statistics**

	Mean	Std. Deviation	N
Pre test of stress of control group	147.7250	20.73395	40
Post test of stress of control group	150.9500	23.69783	40
Re test of stress of control group	150.0500	25.73629	40

**Multivariate Tests**

Effect	Value	F	Hypothesis df	Error df	Sig.	
Stress	Pillai's Trace	.023	.452 <sup>a</sup>	2.000	38.000	.640
	Wilks' Lambda	.977	.452 <sup>a</sup>	2.000	38.000	.640
	Hotelling's Trace	.024	.452 <sup>a</sup>	2.000	38.000	.640
	Roy's Largest Root	.024	.452 <sup>a</sup>	2.000	38.000	.640





**Influence on Experimental group of yogic practices on Stress of college girls**

A one way repeated measure ANOVA was conducted to compare score on the **Stress** of college girls of yoga group with statistics test at first week (pre test), six weeks(post test),and twelve weeks(re-test). Wilks Lambda= .354, F (2, 38) = 34.627 P=.000

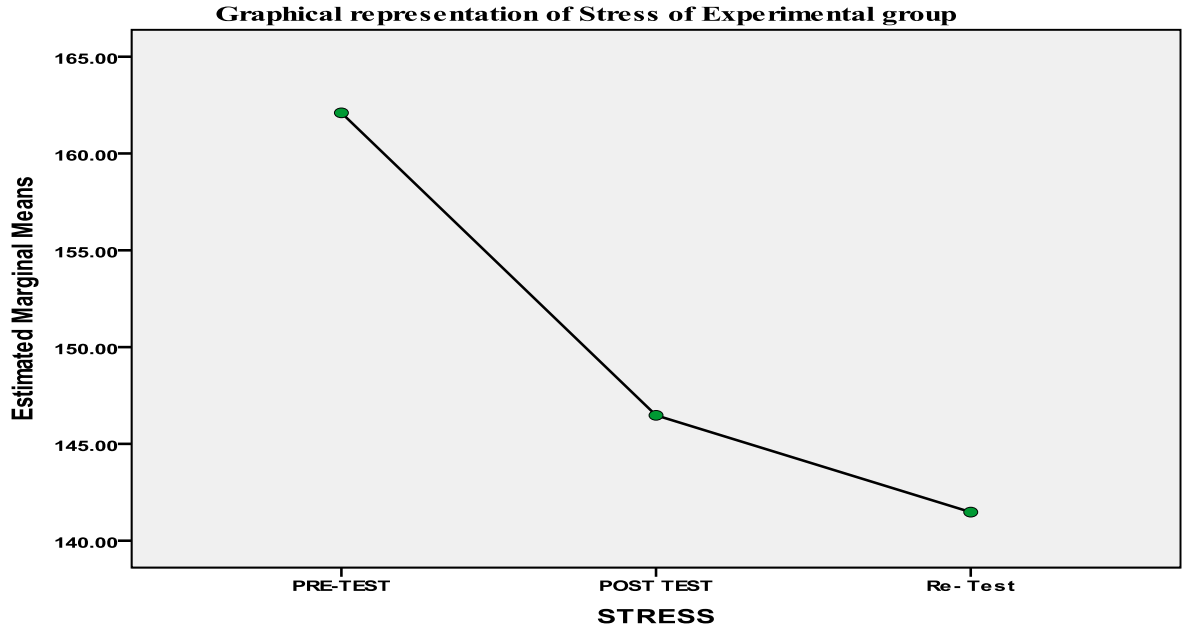
We have found that there is significant change in pre test , post test and retest.

**Descriptive Statistics**

	Mean	Std. Deviation	N
Pre Test of Stress of experimental group	162.1000	27.86027	40
Post Test of Stress of experimental group	146.4750	28.86128	40
Re Test of Stress of experimental group	141.4750	31.81919	40

**Multivariate Tests**

Effect	Value	F	Hypothesis df	Error df	Sig.	
Stress	Pillai's Trace	.646	34.627 <sup>a</sup>	2.000	38.000	.000
	Wilks' Lambda	.354	34.627 <sup>a</sup>	2.000	38.000	.000
	Hotelling's Trace	1.822	34.627 <sup>a</sup>	2.000	38.000	.000
	Roy's Largest Root	1.822	34.627 <sup>a</sup>	2.000	38.000	.000



### Conclusion

According to the finding of the study, there was no significant change is observed in stress of Control group (Non yogic group) in pre-test, post test and re-test. However, the significant change was observed in Experimental Group (Yogic practices group). This change was observed due to increase in different yogic Practices programme and increase in the period of time schedule.

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## The Effect of Yoga, Physical Exercises on Anxiety Variable of Secondary School Students

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### Abstract:

The purpose of the study was intended to assess the effect of yogic and physical exercises on Anxiety variables for this purpose hundred fifty students studying in various classes of Government high school Nagathan and Sanganbasaveshawar residential school of Vijayapaur in Karnataka state in age group of 14-16 years were selected. They were divided into three equal groups, each group consist of 100 subjects, in which group-I underwent yoga practices, group-II underwent physical exercises and group -III acted as control group who were not allowed to participated and receive any special treatment apart from their regular curriculum classes', The training period for this study was six days a week for twelve weeks, the before and after the training period, the subjects were tested for Anxiety. The analysis of covariance (ANCOVA) was applied to find out which group has better in performance, whenever "F" ratio for adjusted test was found to be significant for adjusted post-test means Scheffe's test was followed, as a post hoc to determine which of the paired means differ significantly . it was drawn conclusions that after the training of yoga and physical exercise both training has improved in their anxiety beahviour , but significant difference was noticed in anxiety among the physical exercise and yoga group comparing their counterpart yoga group

### Introduction:

Yoga is the art and science of maintaining physical and mental wellbeing that has its origin in India, is among the most ancient yet vibrant living traditions that is getting increasingly popular today. A potent stress buster, yoga is an instrument of self-evolvement and enlighten, through physical and mental well-being. Math-dimension it enhances the quality of our lives at so many levels. One aspect of yoga's benefits is to explore the bond between health and beauty.

The word Yoga derived from Sanskrit word "YUJ" meaning to yoke, join or unite. This implies joining or integrating all aspects of the individual body with mind with soul- to achieve a happy, balanced and useful life, and spiritually, uniting the individual with the supreme,

### Anxiety:

Anxiety is a psychological and physiological state characterized by somatic, emotional, cognitive, and behavioural components. It is the displeasing feeling of fear and concern. The root meaning of the word anxiety is 'to vex or trouble'.

Schools are dynamic setting for promoting health and wellness through various correlated areas such as physical education and sports. There is a growing awareness that the health and psycho-social wellbeing of young children is of paramount importance and schools can provide a strategic means of children's health, self-esteem, life skills and behavior

The yoga exercises the means to notice all round and harmonious development among

school students in the modern society, hence scholar made an attempt explore the “**The Effect of Yoga and Physical Exercise on Anxiety Variables of Secondary School Students**” The present study was carried out in the background of the experimental method.

**Hypothesis:**

1. There would be significant effect of yoga and physical exercises training on improvement of Anxiety variables between yoga and physical exercises group of secondary school students.
2. The training of physical exercises leads and develops better anxiety variables between yoga and physical group of secondary school students
3. There is no significant difference of yoga and Physical exercise training in improving anxiety variables between yoga and physical exercises group of secondary school students

**Objectives:**

1. To assess the effect of yoga and Physical exercises on Academic anxiety behaviour variables between yoga and physical group of secondary school students

**Methodology:**

The purpose of the study was to find out effect of yogasana and physical exercises on anxiety variables between yoga and Physical exercises group, to achieve the purpose of the study 300 students studying in the Government High School Nagathan and Sanganbasaveshawar Residential school of Vijayapur district of Karnataka ( India) has selected randomly as subject for the experiment, they were divided into two equal groups, each group consists of the 100 students. Group I and Group II underwent yogasan and physical; exercises training for six days per week for twelve weeks. Group III Acted as control that did not undergo any special training programme apart from their regular physical education classes programme. The following variables’ namely anxiety variable were selected as criterion variables. All the subjects of two groups were tested on selected depended variables at prior to and immediately after the training programme. The analyses of covariance were used to analyze the significant difference if any between the groups. The 0.05 level of confidence was fixed as the level of significance to test the ‘F’ ratio obtained by the analysis of covariance, which was considered as an appropriate.

**Analysis of the data:** The data collected prior and the after the experimental period on anxiety variable of yoga and physical exercise group were analyzed and presented in the following table - I

It was hypothesised that there would be significant difference in their Anxiety behaviour between the Yoga and Physical exercises group. The hypothesis was formulated on the rational that regular practices of asana and meditative techniques of yoga is going to develop mastery over the Emotion and cultivates skills of managing anxiety and aggressive behaviour among the practitioners.

**TABLE-I**

**Computation of Covariance of Anxiety level of control Group, Experimental group1 (Yogic Exercises) and Experimental group 2 (Physical Exercises) of Secondary school students.**

Source Variance	Df	Sum of the Square	Mean square	Remarks
Between the group	2	130.341	65.17	71.608
Within the group	296	132.875	0.916	

**Significant at 0.05 level**

**TABLE- I- A**

**Anxiety mean differences of control group (A), Experimental group 1(B) (Yogic Exercise) and experimental group 2(C) (Physical Exercise)**

GROUP	M1	M2	Diff
Group C & E1	12.983	11.047	1.936
Group C & E2	12.983	10.936	2.047
Group E1 & E2	11.047	10.936	0.111

**Results and findings (Anxiety behaviour)**

Table I shows the 'F' ratio of 71.608 which was greater than table value of 0.05 level. Hence Scheff's Post Hoc test was employed to the data the score is 1.130, which was also found significant. Table-VII A (shows Scheff's Post Hoc test) shows the mean difference between the three groups. The difference between Group A (control group) and Group B (Yogic exercise) was 1.936 the difference between the Group A (control group) and Group C Experimental group (Physical Exercise) was 2.047. The difference between Group B Experimental groups I (Yogic Exercise) and Experimental group II (Physical exercise) was - 0.111.

**Discussion and findings of Anxiety Behaviour**

When we refer Table- IA it reveals that computed F ratio was greater than the table Value and data was employed to find-out the adjusted paired means that was also significant. From the statistical analysis of the data, it was found that Physical exercise has shown less mean score and reduced academic anxiety behaviour than their counter part (Yogic exercise and control group). It may be due to the reason that Physical exercises are going to develop competency and mastery over the emotions, confidence, positive attitudes, characters and behaviour of the practitioners. Yogic practices could be useful in the management of Anxiety, which is mainly focus to the mental (Manomaya kosha) and intellectual (Vijnanamaya kosha) layers. The imbalance in the brain functions leads to imbalance in the autonomous nervous system and the unwanted, unrealistic notions and blockages in the intellectual layer which leads to anxiety. The practice of Yogasana keeps the body in relaxed stage; pranayama practices lower the dominance of sympathetic nervous system and the meditation calms down the mind. Chanting of mantras diverts the mind from unwanted thoughts, fears etc.

Hence study reveals that various emotions could be improved by involving in Physical exercises regularly and that result in managing anxiety and Emotion, hence, formulated hypothesis there would be significant difference in their anxiety behaviour between yoga and Physical exercises is statistically proved and hypothesis is accepted.

**The graph-1 showing the mean difference in Anxiety behaviour of yoga and Physical exercises practitioners.**

**Conclusion :** The practice of physical exercises were played significant role in developing And controlling anxiety and emotion among the practitioner, anxiety behaviour factors among the physical exercise secondary school students, hence it was recommended that the physical exercises and yoga should be part of curriculum at rural school system and must teach and practice effectively to notice the harmonious development of personify of students,

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## Chandra Namaskar – the Unkown Soother

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### Abstract

Yoga has been playing a vital role in today's times, especially in the area of stress management. Through this conceptual paper there has been an attempt to draw light upon the latest yogic practice of Chandra Namaskar or Moon Salutation. Using the lunar energy to calm, distress and refresh the mind and body. Practice of Chandra namaskar helps to maintain a balance of heat and cold energies, and control the levels of water and salt within the body. The philosophical idea behind this entire topic is similar to the Chinese ying and yan ideology of maintaining a balance between the various sources of energies, here the balance is between the solar and the lunar energy that provide heating and cooling of the body, mind and emotions respectively. As the Chandra namaskars is a 20<sup>th</sup> century concept it is not as popular as the surya namaskar or the sun salutations. This entire paper tries to bring out the benefits, methods and usage of lunar energy for the wellbeing of human health.

### Introduction

Yoga is a very ancient practice of physical fitness and inner healing nurtured and developed in India since the Vedic period. The use and utilisation of the cosmic energies for the healing and growth of the human body, enlightenment and emotional control is all said to be originating from the external natural sources that controlled the flow of energy within the body. Among all the natural sources the sun and the moon are the most prominent energy sources. Hence, yoga seeks to harness benefits from these sources.

Surya namaskar or sun salutations is known for its strength building, body warming high intensity yogic practice, mostly used for maintaining body balance, stretching, increasing the body vitality and balance of energy. It is the most popular form of yoga. Chandra namaskar is not as popular as the Surya namaskar but lately its benefits have been coming into light. Surya Namaskar literally means bowing down to the sun or saluting the sun for its tremendous energy. However, in contrast to the solar energy it the lunar source of energy. As the sun salutations heat up the body, similarly the Chandra namaskar or the moon salutations is known for its quieting and relaxing benefits. Bowing to the moon during the Chandra namaskar would mean cultivating the moons soothing lunar energy by surrendering to its subtle beauty and calming vibes.

As Surya namaskar is based on the 12 zodiacs or the solar phases of the year, the 17 positions of Chandra namaskar relate to the lunar phases. The solar year is calculated based on the movements of the sun; lunar year is based on the movements of the moon. Solar year is the time taken by the earth to complete one revolution around the sun. A lunar month can also be identified as the time the moon takes to pass through each of its phases (new moon, crescent moon, half-moon & full moon) and return to its original position.

Although Chandra namaskar or the moon salutation is not as popular as Surya namaskar, it has wonderful benefits of its own. Chandra namaskar is a series of 17 yogasana, which form a good warm up session, before beginning yoga practice, or can help in unwinding after a long day at work, and can be practiced as your restorative yoga session.

In Hatha yoga, the first half of the word hatha i.e. 'ha', refers to the sun or fiery energies, while 'tha' refers to the moon or cooling energies.

**DIFFERENCE BETWEEN SURYA NAMASKAR& CHANDRA NAMASKAR**

<b><u>Sr. no</u></b>	<b><u>SURYA NAMASKAR</u></b>	<b><u>CHANDRA NAMASKAR</u></b>
1	Surya namaskar is sun salutation.	Chandra namaskar is moon salutation.
2	It is a complete work out by itself.	It is performed in a more slow and relaxed manner.
3	It is performed in several dozens.	It is done on 4-5 times and more than that.
4	Surya namaskar moves in a forward and backward direction.	Chandra namaskar moves from the left to the right.
5	The sun salutations heat up the body giving it an internal fire.	The moon salutations have a cooling effect and replenish the vital energies of the body.
6	Performed mostly in the mornings.	Preferably performed during the evenings.
7	It is an intense form of yoga.	It is a very light and relaxing form of yoga.
8	It consumes high amount of energy and thus exhausts the body.	It is power saving and restores the energy.
9	Surya Namaskar balances the muscle tone and increases the metabolic rate.	Chandra Namaskar balances the water and salt levels and relaxes the muscle tension.

**Lunar Power**

Chandra Namaskar is an invention of the 20<sup>th</sup> century. The Bihar School, which is a yoga school in India founded in the 1960s, first published the sequence in asana pranayama Mudra Bandha in 1969. (The Kripalu Centre for Yoga & Health created a variation of Chandra Namaskar in the 1980s that differs from the sequence that is presented here)

But the idea of looking at the moon for rejuvenation is certainly not new. In fact, the Shiv Samhita, a 500-year-old Tantric text, regarded the moon as the source of immortality. In the Alchemical Body, David Gordon White, a professor of religious studies at the University of California, Santa Barbara, describes how practitioners of Tantra (a form of yoga that precedes hatha yoga) believed that the “sun” was located in the solar plexus; the “moon” in the crown of the head. The moon was thought to contain amrita, “a part of the macrocosmic moon, the divine nectar of immortality,” which “pours itself into the world in the form of vivifying rain.” While the fiery sun in the abdomen was important for triggering the yogic process, its heat would, over time, cause aging, decay, and death. To reverse this process, yogis did specific practices, such as inversions or mudras (locks, or seals), to both preserve and produce amrita. The act of turning upside down was believed to draw vital fluids from the lower chakra up to the crown, where they would be transformed into amrita (also referred to as soma).

If applied this esoteric to modern hatha yoga practice, it can be said that Surya



namaskar triggers the yogic process by heating the body and giving it the internal fire and passion to dive deeply into yogic study. And Chandra namaskar gives a method for cooling the body, which can help to replenish our vital energy. “The understanding is that we can create soma within ourselves. It’s cultivated through meditation and through lunar sadhana (practice),” says Shiva Rea, the creator of Prana Flow Yoga.

Yogic texts have long acknowledged that the body has both heating and cooling energies and that yoga and pranayama (breath work) can help bring them into a balanced harmony. Doing is part of preparing the body for self-realization.

### Energy Saver

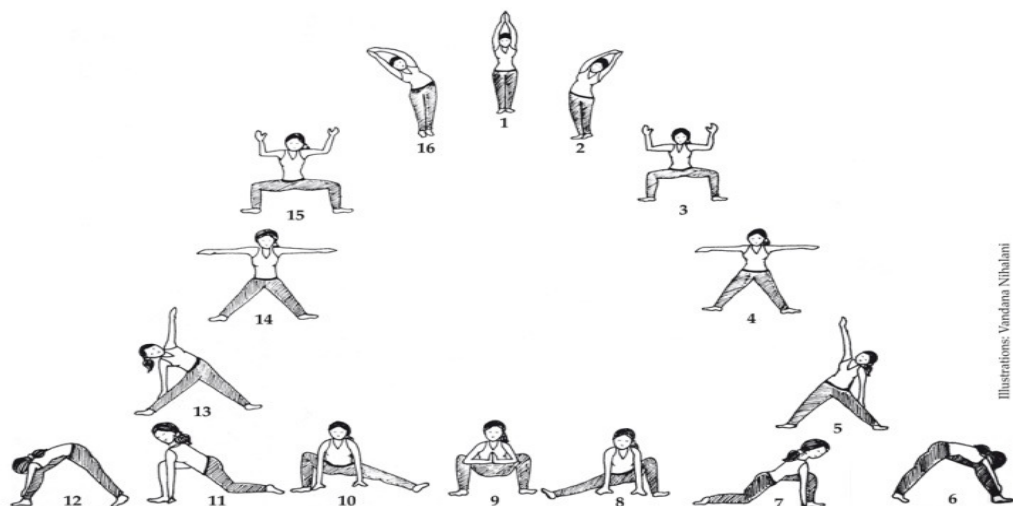
Chandra namaskar should be practiced in the evenings. Surya namaskar is traditionally practiced at sunrise as a way to pay homage to the sun and to warm up the body for the coming day. It makes sense, then, to practice Chandra namaskar in the evening when the moon is out. It is not only a great way to prepare for sleep, but also a blissful way to calm refresh the mind “This reflects internally in the body: the hot and cold energies are also in balance. It’s a natural time to do the practice.”

### BEST TIME TO PRACTICE CHANDRA NAMASKAR OR MOON SALUTATION

Although, Chandra namaskar can be done at any time of the day, the best time to practice this asana is in the evening around sunset, when the moon is up. Just as mornings are good time for sun salutation, evenings are the best time for moon salutation. Sunrise and sunset have always been considered powerful times for practicing hatha yoga. “During these times, there’s a balance between light and dark. It’s neither day nor night, it’s a junction between the two.” says Richard Rosen. Different phases of the moon have different effects on the earth and its inhabitants. The Shiv Samhita, the ancient Indian tantric text mentions the moon as the source of immortality. The phases of the moon affect everything that contains two elements salt and water. Choosing few days during the new moon, the full moon, and the waning moon (the 14 days after a full moon), since energy is lower during those times, Chandra namaskar proves beneficial.

### STEPS OF CHANDRA NAMSAR OR MOON SALUTATIONS

There are several variations of the moon salutations, each one very different from the other. Mentioned here are the steps for the traditional Chandra Namaskar:



Illustrations: Vandana Nihalani

1. **Tadasana:** Stand with your feet together, body aligned with breath. Bring the palms together like joining them during prayer, stretch the hands over the head and lengthen the spine. Remain in this position and take a few breaths before proceeding to the next asana.
2. **Chandrasana:** Inhale deeply and bend to the left side, exhale as you bend. However, be careful to only tilt sideways and not forward or backward.
3. **Utkatakonasana:** Return to the centre, step the feet apart and turn slightly out. Inhale, and as you exhale bend your knees, with thighs parallel to the ground. Keep forearm at 90 degrees to the arms, and palms facing you.
4. **UthitaTadasana:** Raise yourself from the squatting position and straighten the elbows. Keep hands parallel to the ground, while relaxing chest and shoulders.
5. **Trikonasana:** Step the left foot out and slide down to the left side. Extend, the right hand up. This improves the spine flexibility and rectifies the misalignment of the shoulders.
6. **Parsvottanasana:** Bring the head to touch the left knee, relax both hands down on the left foot. This asana helps improve posture and sense of balance. It also improves digestion and lengthens the muscles on calves of the leg.
7. **Left side lunge:** Bend both knees and move into lunge on the left side, while looking to your left.
8. **Forward facing lunge:** Straighten the right knee, do forward facing lunge, and bring both hands in front on the floor.
9. **Malasana:** Squat with feet placed firmly on the floor and palms joined in front of you.
10. **Forward facing lunge:** Repeat step 8, but, bend right knee and straighten the left and place palms on the floor.
11. **Right side lunge:** Lunge to the right side, and look to your right.
12. **Parsvottanasana:** Straighten both knees and bring your head to rest on the right knee, with both hands near the right foot.
13. **Trikonasana:** Move up into triangle pose.
14. **Uthitatadasana:** Straighten knees and elbows.
15. **Utkatakonasana:** Repeat step 3.
16. **Tiryakatadasana:** Join hands in prayer position, extended overhead, bend to your right side.
17. **Tadasana:** Conclude on sequence, and return to original position, with hands in prayer position and extended overhead.

#### **Benefits of the Pose**

Practice of moon salutations on full moon days can help in balancing fiery energies and helps in calming down, if you feel stressed, hyper – excited or over stimulated. It helps in channelizing creative energies. Moon salutation is best practiced outdoors on moonlit nights.

The physical benefits of the pose include stretching and strengthening of the thigh muscles, calves, pelvis and ankles, mainly lower body. It also helps activate root chakra. Moon salutations are beneficial to people under any form of stress. It helps balance the energy before point of exhaustion, as it is a quieting practice. In School of Yoga, it is practiced with a meditation at the beginning and at the end. And offer the option of chanting a different mantra related to lunar energy of each pose. Among the specific health benefits of the pose are, it promotes balance, digestion, tones the spine, expands the lungs and opens the Heart Chakra. It improves good blood circulation, keeps the abdominal tract well regulated and healthy, stimulates spinal nerves, stretches leg muscles and back, cures sexual ailments and improves flexibility prior child birth. It also relaxes sciatic nerves, improves confidence, tones pelvic

muscles, regulates functioning of adrenal glands, relieves constipation, anger, sciatica, helps in maintaining balance on both sides of the body, and helps develop a healthy sense of poise and respect for mind and body. For women with menstrual cycle, Chandra namaskar can be a balm for low-energy days.

**Conclusion**

It can thus be said that along with the highly intensifying Surya Namaskar that heats up the body, tones the muscles and utilizes high amount of energy that exhausts the body, Chandra Namaskar is contrasting in nature by cooling the body, reducing stress, rejuvenating the senses, relaxing the tensed muscles and refreshing the mind. Both, having their own unique benefits, help in building a healthy body and sound mind. Having their specific identities and benefits both play an essential role in yogic practice at both ends of the day. The body does require an antidote to the fast and strenuous lifestyle of the modern age.

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## Stress Management and Yoga

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### Abstract

Yoga a mind-body practice is considered one of many types of complementary and integrative health approaches. Yoga brings together physical and mental disciplines that may help you achieve peacefulness of body and mind. This can help you relax and manage stress and anxiety. Yoga has many styles, forms and intensities. Hatha yoga, in particular, may be a good choice for stress management. Hatha is one of the most common styles of yoga, and beginners may like its slower pace and easier movements. Yoga poses are good exercise and can help loosen up the tense muscles in your body. The areas of the body that tend to carry the most stress are the neck, shoulders, and back. But other parts of the body (like the face, jaw, fingers, or wrists) also can benefit from simple yoga stretches. Yoga is so much more than just physical exercise, though. The key to getting the best out of each pose is to focus not only on your body, but also on your mind and breathing. But most people can benefit from any style of yoga it's all about your personal preferences. The core components of hatha yoga and most general yoga classes are: **Poses.** Yoga poses, also called postures, are a series of movements designed to increase strength and flexibility. Poses range from lying on the floor while completely relaxed to difficult postures that may have you stretching your physical limits. **Breathing.** Controlling your breathing is an important part of yoga. Yoga teaches that controlling your breathing can help you control your body and quiet your mind. **Meditation or relaxation.** In yoga, you may incorporate meditation or relaxation. Meditation may help you learn to be more mindful and aware of the present moment without judgment.

### Stress Management and Yoga

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The core components of hatha yoga and most general yoga classes are:

- **Poses.** Yoga poses, also called postures, are a series of movements designed to increase strength and flexibility. Poses range from lying on the floor while completely relaxed to difficult postures that may have you stretching your physical limits.
- **Breathing.** Controlling your breathing is an important part of yoga. Yoga teaches that controlling your breathing can help you control your body and quiet your mind.

- **Meditation or relaxation.** In yoga, you may incorporate meditation or relaxation. Meditation may help you learn to be more mindful and aware of the present moment without judgment.

#### **The health benefits of yoga**

The potential health benefits of yoga include:

- **Stress reduction.** A number of studies have shown that yoga may help reduce stress and anxiety. It can also enhance your mood and overall sense of well-being.
- **Improved fitness.** Practicing yoga may lead to improved balance, flexibility, range of motion and strength.
- **Management of chronic conditions.** Yoga can help reduce risk factors for chronic diseases, such as heart disease and high blood pressure. Yoga might also help alleviate chronic conditions, such as depression, pain, anxiety and insomnia.

#### **Why Yoga for Stress Relief?**

- Life can be stressful. For starters, there's your busy schedule waking up super early for school, studying late at night for tests, juggling sports practice, homework, and meals. It's a lot to balance!
- Everyday issues can add emotional stress, too counseling a friend through a breakup, regretting a disagreement with a parent, weighing an important decision, or stressing over whether you'll make final cuts for the varsity team. With lots on your mind, it's easy to feel stressed.
- There are many different ways to cope with stress. Talking with friends, exercising, and seeing a school counselor is just a few. Yoga can help reduce stress because it promotes relaxation, which is the natural opposite of stress. Yoga can benefit three aspects of ourselves that are often affected by stress: our body, mind, and breathing.

Yoga is a practice, not a competition. Start where you are and proceed with caution. To avoid injury, listen to your body and don't push further than feels good.

- **Anjali Mudra (Salutation Seal)**
- **Sukhasana (Easy Pose)**
- **Marjaryasana (Cat Pose)**
- **Bitilasana (Cow Pose)**
- **UttanaShishosana (Extended Puppy Pose)**
- **Paschimottanasana (Seated Forward Bend)**
- **JanuSirsasana (Head-to-Knee Forward Bend)**
- **SalambaSirsasana (Supported Headstand)**
- **Balasana (Child's Pose)**
- **Savasana (Corpse Pose)**

#### **Relaxation Techniques for Stress Relief**

##### **Bring your nervous system back into balance**

When stress overwhelms your nervous system your body is flooded with chemicals that prepare you for "fight or flight." While the stress response can be lifesaving in emergency situations where you need to act quickly, it wears your body down when constantly activated by the stresses of everyday life. No one can avoid all stress, but you can counteract it by learning how to produce the relaxation response, a state of deep rest that is the polar opposite of the stress response. The relaxation response puts the brakes on stress and brings your body and mind back into a state of equilibrium.

**When the relaxation response is activated:**

- Your heart rate decreases
- Breathing becomes slower and deeper
- Blood pressure drops or stabilizes
- Your muscles relax
- Your body begins to heal

**Breathing meditation**

Cleansing breaths, deep breathing is a simple yet powerful relaxation technique. It's easy to learn, can be practiced almost anywhere, and provides a quick way to get your stress levels in check. Deep breathing is the cornerstone of many other relaxation practices, too, and can be combined with other relaxing elements such as aromatherapy and music. All you really need is a few minutes and a place to stretch out.

**Rhythmic movement**

Rhythmic exercise or physical activity that engages both your arms and legs such as running, walking, swimming, dancing, rowing, or climbing is most effective at relieving stress when performed mindfully. As with meditation, mindfulness requires being fully engaged in the present moment, focusing your mind on how your body feels right now. As you move, instead of continuing to focus on your thoughts, focus on the sensations in your limbs and how your breathing complements your movement. If your mind wanders to other thoughts, gently return to focusing on your breathing and movement.

**Body scan meditation**

A body scan is similar to progressive muscle relaxation except instead of tensing and relaxing muscles you simply focus on the sensations in each part of your body.

Practicing body scan meditation

- Lie on your back, legs uncrossed, arms relaxed at your sides, eyes open or closed. Focus on your breathing, allowing your stomach to rise as you inhale and fall as you exhale. Breathe deeply for about two minutes, until you start to feel comfortable and relaxed.
- Turn your focus to the toes of your right foot. Notice any sensations you feel while continuing to also focus on your breathing. Imagine each deep breath flowing to your toes. Remain focused on this area for one to two minutes.

**Mindful meditation**

Mindfulness is the ability to remain aware of how you're feeling right now, your "moment-to-moment" experience both internal and external. Thinking about the past blaming and judging yourself or worrying about the future can generate stress. But by staying calm and focused in the present moment, you can bring your nervous system back into balance. Mindfulness can be applied to activities such as walking, exercising, eating, or meditation. Meditations have long been used to reduce stress, anxiety, depression, and other negative emotions.

**Visualization meditation**

Visualization, or guided imagery, is a variation on traditional meditation that requires you to employ not only your visual sense, but also your sense of taste, touch, smell, and hearing. When used as a relaxation technique, visualization involves imagining a scene in which you feel at peace, free to let go of all tension and anxiety.

**Yoga and tai chi**

Yoga involves a series of both moving and stationary poses, combined with deep breathing. As well as reducing anxiety and stress, yoga can also improve flexibility, strength,

balance, and stamina. Practiced regularly, it can also strengthen the relaxation response in your daily life.

### **Massage therapy**

A professional massage at a spa or health club can help reduce stress, relieve pain, and ease muscle tension. What you may not be aware of is that you can experience many of the same benefits at home or work by practicing self-massage or trading massages with a loved one. Try taking a few minutes to massage yourself at your desk between tasks, on the couch at the end of a hectic day, or in bed to help you unwind before sleep. To enhance relaxation, you can use aromatic oil, scented lotion, or combine self-message with mindfulness or deep breathing techniques

### **A five-minute self-massage**

A combination of strokes works well to relieve muscle tension. Try gentle chops with the edge of your hands or tapping with fingers or cupped palms. Put fingertip pressure on muscle knots. Knead across muscles, and try long, light, gliding strokes. You can apply these strokes to any part of the body that falls easily within your reach. For a short session like this, try focusing on your neck and head:

- Start by kneading the muscles at the back of your neck and shoulders. Make a loose fist and drum swiftly up and down the sides and back of your neck. Next, use your thumbs to work tiny circles around the base of your skull. Slowly massage the rest of your scalp with your fingertips. Then tap your fingers against your scalp, moving from the front to the back and then over the sides.
- Massage your face. Make a series of tiny circles with your thumbs or fingertips. Pay particular attention to your temples, forehead, and jaw muscles. Use your middle fingers to massage the bridge of your nose and work outward over your eyebrows to your temples.

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## Evaluation of Anthropometric and Physiological Parameters of Indian Junior Female Field Hockey Players: A Cross-Sectional Study

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### Abstract

Current study was designed to address the lacuna in the literature for profiling the physiological characteristics of Indian junior female field hockey players. The research was conducted on 26 female Indian field hockey players (age from 12– 20 years) attached to the SAI Training Centre at NSNIS, Patiala. Anthropometric characteristics including height, weight and skin fold thickness were measured. BMI, % of Body fat, total body fat (TBF) and lean body mass (LBM) have been calculated. The mean height, weight, BMI and % of Body Fat were respectively  $155.30 \pm 4.69$ ,  $45.60 \pm 6.35$ ,  $18.84 \pm 1.81$  and  $20.84 \pm 3.05$ . The physiological parameters such as maximum aerobic capacity ( $\text{VO}_{2\text{max}}$ , ml/kg/min), and anaerobic power parameters that is maximum power ( $P_{\text{max, watts}}$ ), average power ( $P_{\text{avg., watts}}$ ), minimum power ( $P_{\text{min, watts}}$ ) and the fatigue index (FI) were assessed. The participants were subjected to a 20 m. multi stage fitness test for indirect evaluation of  $\text{VO}_{2\text{max}}$ . Running based Anaerobic Sprint Test (RAST) was conducted to assess anaerobic power. Aerobic capacity was found to be  $44.09 \pm 3.49$  ml/kg/min. Maximum, minimum and average anaerobic power outputs were found to be  $252.99 \pm 80.30$ ,  $161.84 \pm 34.19$  and  $200.57 \pm 33.32$  watts respectively. Fatigue index was noted  $2.30 \pm 0.92$ . Anthropometric and physiological parameters interplay crucial role to find out the relevant outcome of training and degree of adaptations in the field hockey players.

**Key words:**  $\text{VO}_2$  max, Anaerobic power, Fatigue Index, BMI, % Fat, and LBM.

### Introduction:

Field hockey is an intermittent endurance sport involving short sprinting as well as movement with and without ball (Manna et al., 2009). Successful performance in field hockey is not only influenced by the morphological and anthropometric characteristics such as body size and composition; but also the functional parameters such as aerobic and anaerobic capacity (Scott, 1991; Singh et al., 2010) and fitness like strength, speed, agility (Nikitushkin & Guba, 1998). Evaluation of anthropometric, physiological and skill-related tests for talent identification in female field hockey plays crucial role (Keogh et al., 2003).

Team sports such as soccer, rugby and hockey can be classified as intermittent sports



are characterized by repetitive bouts of high intensity activity interspersed with variable periods of rest or exercise of low to moderate intensity for example walking, jogging etc (Maughan and Gleeson, 2004). Despite of field hockey's global popularity, there is scarcity of research to find out the physiological characteristics required for elite level players. Also the physiological adaptations required to evolve one junior into senior elite hockey player, has to be studied. It has been suggested that to compete at hockey's highest level players must possess certain physiological, psychological, technical and tactical characteristics (Elferink-Gemser, 2011).

Hockey matches are typically last for 60 min duration and players have been reported to complete around 1000 changes in their activity, approximately once in every 4 Sec. (Lothian and Farrally, 1992). Female players reported to cover upto 9.5 km over the course of a match (Gabbett, 2010). The main aim of the current research was to evaluate the anthropometrical and physiological requirements of junior Indian female field hockey players.

The game of hockey demands high  $VO_{2max}$  due to involvement of large number of high intensity interval training (Carey DG et al). Field hockey training affects many anthropometric and physiological parameters of the players. These parameters are often inter-correlated due to dependence of one on another and suggest adaptations related to training (Montgomery DL).

Field hockey is an intermittent team sport which requires precisely more aerobically demand (Reilly and Borrie, 1992).

Direct measurement of metabolic responses in sports such as hockey has proved impractical as such measurements are likely to interfere with normal play. Replicating the demands of such sports in the laboratory has also proved difficult due to the inherent unpredictable changes in match tempo and the demands placed on players.

An indirect estimation of the physiological demands placed on players during competition can be obtained by monitoring heart rate responses. In elite female hockey players mean heart rate values of around 170 beats/min have been reported (Lothian and Farrally, 1992; MacLeod et al., 2007). Elite men have been shown to have an average heart rate of around 160 beats/min during a match with 64% of total match time spent at intensities eliciting a heart rate of >75% HRmax (Boyle et al., 1994; Johnston et al., 2004).

Based on the current literature, the majority of activity may be classified as low intensity in nature with periods of high intensity superimposed (Anupal et al., Sports Research Journal, 2017).

There is a great variety of field tests which measure the physiological characteristics of field hockey players. One of the well-known and widely used functional tests for indirect evaluation of  $VO_{2max}$  is the 20 m. shuttle run test (Anupal et al., Sports Research Journal, 2017).

Anaerobic performance is obviously relevant to sprinters, but also to those who play team and individual sports where there is an anaerobic component such as weight lifting, Judo, sprinting in football or hockey (Withers, 1977).

So, the quest of our study was to evaluate the selected anthropometric as well as physiological parameters of the Indian junior female field hockey players.

#### **Methodology:**

**Subjects:** Twenty six female Hockey players age from 12– 20 years, attached to the Sports Authority of India Training Centre at National Institute of Sports, Patiala; were selected for the present study. Anthropometric characteristics including height, weight and 4 skinfold

thickness (Biceps, triceps, subscapular and suprailiac) were measured. The physiological parameters like maximum aerobic capacity ( $VO_{2max}$ , ml/kg/min), and the Anaerobic power parameters that is maximum power ( $P_{max}$ ), average power ( $P_{avg}$ ), minimum power ( $P_{min}$ ) and fatigue index (FI) were also assessed.

**(A) Measurement of Anthropometric Variables:**

Anthropometric measurements were taken on right side of the body by following standard techniques and using standard instruments (Ross et al. 1978). Body mass Index has been calculated by using the formula:

$$BMI = [\text{Weight in Kg.} \div (\text{Height in m.})^2]$$

Body density and body fat were calculated by benchmark equations (Durnin and Womersley, 1974; Brozek et al. 1963).

$$\% \text{ Body Fat} = [(4.95 \div \text{Body Density}) - 4.5] \times 100$$

Lean body mass is calculated as follows:

$$LBM = TBM - TBF$$

Lean body mass = Total body mass – total body fat

TBF is calculated as follows:

$$TBF = (TBM \times \% \text{ body fat}) / 100$$

**(B) Measurement of Physiological parameters:**

**Assessment of maximum aerobic capacity ( $VO_2 \max$ ):** The participants were subjected to 20 m. shuttle run test for indirect evaluation of their  $VO_2 \max$ . It is also known as Beep test. Prior to the conduct of the test proper instructions were given to the subjects. The Beep test was included a maximum of 20 m. dashes, whose number was gradually increased. (Leger & Lambert, 1982) Each running stage implies the overcoming of the respective number of dashes for a limited period of time which remained the same throughout the experiment. The running speed for the onset level was 8.5 km. per hour and increases by 0.5 km. per hour for each subsequent level. The prediction of  $VO_2 \max$  is based on the maximum aerobic speed achieved as well as the age of the informants (calculated in years, while the evaluation itself takes into account the highest level registered during the test, the number of dashes overcome before the moment when the athlete is unable to sustain the tempo in accord with the sound signals.

**Assessment of anaerobic power:** RAST was conducted to assess anaerobic power (Adamczyk, 2011) of the hockey players.

Running-based Anaerobic Sprint Test (RAST) to test a runner's anaerobic performance. It provides measurements of power. RAST provides a test that can be used with athletes where running is the primary method of movement. This test requires the athlete to undertake six 35 metre sprints with 10 seconds recovery between each sprint.

Results were expressed in mean and standard deviation.

**RESULTS AND DISCUSSION:**

Descriptive statistics of selected anthropometric characteristics in STC Female hockey players are shown in Table 1. The mean Decimal Age is 16.15 years ( $\pm 2.31$ ) which ranges from 12.38 – 20.70. It has been found that height ranges from 145.7 - 165.9 with mean of 155.30 ( $\pm 4.69$ ). Mean of BMI 18.84 ( $\pm 1.81$ ) falls under the normal Range of BMI (18.5 – 24.9, WHO 2004). The % of body Fat and LBM ranges from 15.03 – 25.54 with mean value of 20.84 ( $\pm 3.05$ ) and 27.07 – 48.66 with mean of 35.96 ( $\pm 4.01$ ) respectively.

Table 1: Anthropometric Parameters of STC Hockey Girls (N= 26)

Parameters	Range	Mean	SD
Decimal age (Yrs.)	12.38 – 20.70	16.15	2.31
Height (cm.)	145.7 – 165.9	155.30	4.69
Weight (kg.)	32.3 - 65	45.60	6.35
BMI	15.09 – 23.62	18.84	1.81
% Body Fat	15.03 -25.54	20.84	3.05
TBF (kg.)	5.23 – 16.34	9.65	2.57
LBM (kg.)	27.07 – 48.66	35.96	4.01

Maximum Anaerobic Power output, minimum power, average power, is found 252.99 ±80.30, 161.84±34.19, 200.57 ±33.32. Fatigue index is found 2.30 ±0.92.

Withers et.al. (1977) found that hockey had relative anaerobic power of 15.2 W kg<sup>-1</sup>. The anaerobic power of Indian hockey players was found lower than that of their international counterparts. As anaerobic power was important for the game of hockey, Indian players should improve their power to achieve success in the International competitions.

Aerobic capacity (VO<sub>2</sub>) is found 44.09 ±3.49ml/kg/min.

Table-2 : Physiological Parameters of STC Hockey Girls (N=26)

Physiological Parameters	Mean	SD
VO <sub>2</sub> max (ml/kg/min)	44.09	3.49
Maximum power (watts.)	252.99	44.31
Minimum power (watts.)	161.84	34.19
Average Power (watts.)	200.57	33.32
Fatigue Index	2.30	0.92

Aerobic capacity certainly plays an important role in modern field hockey and has a major influence on technical performance and tactical choices. The VO<sub>2</sub>max values of Indian hockey players exhibit variation in different age categories.

#### Conclusion:

Field hockey is an intermittent endurance sport involving with sprinting movement. Those player's Anthropometric and physiological parameters interplay crucial role to find out the relevant outcome of training and degree of adaptations in the field hockey players. Our current study was able to depict the physiological demand of field hockey players.

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## Contemporary Movement in Sports Management in India

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### Abstract :

At the beginning of the 21st century sport has become one of the most remarkable phenomena of the present period of the development of mankind. Sport as a part of physical culture is characterized both by its specific characteristics, and its position and functions in relation to other areas of social life. Sports management is the study of planning, supervising and organizing various sporting activities. Sport management plays a significant part in fulfilling needs of persons and at the same time it attracts attention and interest of general public. The role of such sports management will be to organize different league-based sports events, such as football (Indian Super League) and kabaddi (Pro Kabaddi League) have boosted the interest of viewers and sponsors towards these sports. Today it is one of the professional sectors with the most economic strength, generate job opportunities for many people who seek to a future in the world of sports. Sports Management is a field of education pertaining to the business aspects of sports. Aim and Objectives of the study : 1) To apply the functions of Sports Management. 2) Enhance sports infrastructure and make sure its proper utilization. 3) Suitably visualize, plan, execute, and evaluate a sports event. 4) To raise resources for the promotion of sports and games in the country.

**Keywords:** Sports management, Opportunities, Organizing sports, Promotional

### Introduction :

Defining sports management in a modern context is a complicated task. The complexity at hand is due to the ever – changing nature of both terms. According to the Merriam-Webster dictionary

- Sport means *a contest or game in which people do certain physical activities according to a specific set of rules and compete against each other.* [1]
- Management is defined as *the act or skill of controlling and making decisions about a business, department, sports team, etc.* [2]

Though the definitions describe the scope of sports management. Every person has his own understanding of any subject in a given context. Therefore, **Sports management** is simply defined as “any combination of skills related to planning, organizing, controlling, budgeting, leading and evaluating within the context of an organization, whose primary product is related to sport and/or physical activity”. [3]

The sport industry has had a growing impact on the global economy over the last 20 years with investment in public infrastructure, mobilizing resources and creating new professions and jobs. Today it is one of the professional sectors with the most economic momentum, creating opportunities for many people who aspire to a future in the world of sports. Sports Management is a field of education concerning the business aspects of sports.

**Sports Management** is a relatively new concept in India taught in very few institutes across the country. Sports and games are important for the whole development of the

individual. Today, sports of several kinds are played across nations and with the passage of time huge amounts of money, name, fame and glamour and media attention have become an integral part of any sport.

Today, professional sports management companies are mushrooming all across the country especially in cities like Delhi, Mumbai, Bangalore, Kolkata and Hyderabad and the need for trained professionals in such companies has also grown manifold. Sports management is the study of planning, supervising and organizing various sporting activities like international and domestic tournaments for cricket, football, hockey, golf, and several other games.

The scope of this sector varies globally. It includes several segments: sports infrastructure, sports events, training, goods manufacturing and retail. Further, sports contribute significantly towards improving the overall health and well-being of a country. [4]

#### **Why Sports Management [5]**

- **SUCCESS OF LEAGUES**

The success of the Indian Premier League (IPL) has produced many similar league competitions across many sports such as Football, Hockey, Kabaddi, Golf, Badminton, Tennis, mixed Martial Arts, Cycling, Wrestling and so on. These leagues have presented new investors, more spectators, and higher returns. The last decade has seen the Indian sports industry expanding its boundaries with the rising reputation of the various leagues such as the Indian Premier League (aka IPL), the Indian Super League, Hockey India League etc.. The performance of our sports teams & icons in various sports like Indian Cricket Team winning the T20 & the Cricket World Cup, Mary Kom, Leander Paes, Saina Nehwal etc. winning numerous titles in their respective sports have also contributed to this fact.

- **RISING INTEREST OF CORPORATES AND FILM INDUSTRY**

Corporates and Multinationals group such as, Reliance Industries and Hero Motors are now actively taking interest to adopt sports other than Cricket by endorsing, the Indian Super League, Premier Badminton League and the Hockey League respectively thus bringing in higher investment and professional intellect. With the involvement of celebrities, there is a lot more glamour in sports which has a special allure to the national and international brands, inviting these to the fore. The Kabaddi League, which was viewed by more than 500 million, shows to the popularity of non-cricketing sports in India.

- **RISING DEMAND FOR SPORTS PROFESSIONALS**

Sport in India is steadily growing, with a professional approach and generating employment opportunities today. The total budget of sports development & education in India is Rs. 3,118 crores, a positive indication on the growth of the Sports industry. However, the industry is severely lacking professionals who understand the needs of the industry and can rightfully address them.

Thus the industry is seeing completely expert staffs as sports manager who, aside from the technical and practical features, would also have a thoughtful of sports marketing, sports finance, facility management, sports medicine, leagues and team management etc. Apart from the various Sports Federations, Associations, Academies, and Sports Marketing firms such as Procam, Kooh Sports and Professional Management Group, broadcasters such as Star Sports, Neo Sports, and Sony.

#### **Sport Management Career Opportunities**

Sport Management is an exciting degree that will help you develop your career in the sport industry. It has been designed to meet the industry's need for well-qualified managers

who can combine management and financial skills with specialist knowledge of sport. The course will help you acquire the necessary knowledge, understanding and skills to enable reflective management practice in a range of sport settings.

Sport Management graduates have numerous career opportunities from which to choose, including entry level positions in professional, college and amateur sports organizations. Many choose to expand those opportunities by pursuing their master's degree while serving as a graduate assistant or full-time intern; others may choose to attend law school in order to pursue careers as sport agents. The field of sport management extends well beyond the traditional team sports and contains career options in sports equipment manufacturing and sales; event planning and sponsorship; sport facility management; parks & recreation; and sport tourism.

Among the many options available in the field of sport management, a graduate of our program could:

- Pursue a career in intercollegiate athletics in sports information, rules compliance, marketing, academic advising, ticket operations, facility and event management, or general administration.
- Work with the outdoor adventure industry or start your own.
- Get involved with the sport equipment industry. A number of opportunities exist in the manufacturing, advertising and sale of sports equipment and apparel.
- Be a sport entrepreneur. Operate a sporting goods store, a racquet club, a gym or a bike shop.
- Organize and promote sport events.
- Develop and maintain internet sites for sport organizations. Opportunities abound for sport management majors with technical skills in web design, photography and videographics.

This list is just a sampling of the career options available to sport management graduates. We recommend exploring some of the current positions advertised on the web sites linked below. One of the features of our program is the personal attention that we offer students in terms of helping them select their career paths, and customize their curriculum to fit their goals and interests.

### **Conclusion :**

India is one of the world's fastest growing economies. Sports are growing at a higher speed than ever. These companies are mainly responsible for making sports a profitable profession by exploiting its popularity and the ability to attract people. Taking sports to more sophisticated venues and by enabling live telecasts, these companies have created large number of viewers for each and every sports event.

Secondly, these companies played an important role in turning athletes into celebrities. They did it by casting them in various commercials and linking them to 'larger than life images' by highlighting their achievements. Thus, sports events have become opportunities for thousands of fans to see their heroes in real life. This trend also boosted the number of viewers for sports events.

As a result of the changes in the entire sports world, the athletes started attracting enhanced respect from society, more and more enthusiastic youngsters have chosen this profession. By undergoing hard and relevant training, they tried their best to excel in their sector. This has enhanced the overall quality of the sports. When sporting events have become 'money-earning events', even the authorities also started adding more facilities to improve

this sector. As a result, many modern stadiums and playgrounds have come up across the world in the recent past.

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## Leadership Training in Recreational Sports

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### Abstract

A systemic approach to leadership development training one that builds a motivated, loyal workforce capable of reaching new levels of productivity. The system develops leaders from executives to individual contributors and teaches the critical skills needed to ensure success. India approaches the organization at four management levels, each requiring their own unique development needs. The levels are then divided into skill areas, with each containing one or more leadership development training modules. The effects of sports and recreation programs can be powerful and transformative; these effects tend to be indirect. It reduce juvenile antisocial behavior largely work through diversion, providing alternative safe opportunities to risk taking, maintenance of social status, as well as opportunities to build healthy relationships with Elders and links with culture. Although it around one-third of Indigenous people participate in some sporting activity also makes sports a potentially powerful vehicle for encouraging Indigenous communities to look at challenging personal and community issues. Within Indigenous communities, a strong component of sport and recreation is the link with traditional culture. Cultural activities such as hunting are generally more accepted as a form of sport and recreation than traditional dance. Therefore sport and recreation are integral in understanding 'culture' within Indigenous communities, as well as highlighting the culture within which sport and recreation operate. Providing a quality program experience heightens engagement in the sports or recreational activity. Linking sports and recreation programs with other services and opportunities (for example, health services or counseling; jobs or more relevant educational programs) improves the uptake of these allied services. This assists in developing links to other important programs for improving health and wellbeing outcomes, or behavioral change. For sporting programs, providing long-term sustained, regular contact between experienced sportspeople and participants allows time to consolidate new skills and benefits that flow from involvement in the program. Promoting a program rather than a desired outcome improves the uptake of activities for example; a physical fitness program is more likely to be well used if promoted as games or sports rather than a get-fit campaign. Involving the community in the planning and implementation of programs promotes cultural appropriateness, engagement and sustainability. Keeping participants' costs to a minimum ensures broad access to programs. Scheduling activities at appropriate times enhances engagement for example, for young people, after school, weekends and during school holidays, when they are most likely to have large amounts of unsupervised free time. Facilitating successful and positive risk taking provides an alternative to inappropriate risks. Creating a safe place through sports or recreation activities, where trust has been built, allows for community members to work through challenges and potential community and personal change without fear of retribution or being stigmatized.

### Introduction

Healthy communities are communities in which people have the physical and mental health and wellbeing needed to conduct their daily lives. The purpose of this paper is to review the available evidence of a range of sports and recreation programs in relation to their

effects on supporting and building healthy communities. These programs are often conceptualized as providing 'a site for self-discipline and character building. This site or situation allows skills such as cooperation and conflict resolution; communication; problem solving; delayed gratification and self-discipline to develop. The development of these skills can, in turn, lead to a change in self-concept and self-esteem. In the case of crime prevention programs, these programs are thought to support the growth of protective factors that prevent engagement in antisocial behaviors'

The terms '**sports**' and '**recreation**', for the purposes of this paper, will be used to mean the following types of activities:

**Sports:** This includes a range of organized physical activities, such as football, netball, basketball, athletics and the like. These often have a competitive element. Types of sporting activities reviewed here include both team and individual sports.

**Recreation:** Recreation overlaps with sports, but also includes a range of other leisure activities that are not generally included in sporting categories. A range of non-home-grown-specific activities are included in the evidence such as film nights, discos, family fun days and barbeques, and outdoor activities such as wilderness adventure programs. While art programs were not specifically addressed, many of the effects noted in the paper are also applicable to arts programs.

### **Leadership Training Programs**

Your business environment that once got tougher year after year now gets tougher day after day. Surviving in a changing economy and marketplace, working more efficiently, delivering solid customer service, meeting the demands of organizational stakeholders, and maintaining quality control are just a few of the key issues you face. Gaining a competitive advantage in light of these challenges is essential for survival. That's why your leaders from executives to individual contributors need effective skills to propel your organization to new heights.

There are some skills which can be develop the leadership training

- Contribute and communicate effectively
- Feel valued and capable in their jobs
- Build collaboration, personal initiative, and trust
- Develop their ability to manage people and projects
- Understand their role in the big picture of organizational success

The Genuine Leadership® system provides a systemic approach to leadership development training one that builds a motivated, loyal workforce capable of reaching new levels of productivity. The system develops leaders from executives to individual contributors and teaches the critical skills needed to ensure success.

Achieve Global India approaches the organization at four management levels, each requiring their own unique development needs. The levels are then divided into skill areas, with each containing one or more leadership development training modules

### **Why are sports and recreation activities important in communities?**

#### **The overall importance of sport and recreation**

Sports and recreation are an integral part of any culture, society or local community. There is a large body of evidence, both in community sports and in sports therapies. Sports and recreation programs for young people often provide a vehicle for improving educational engagement, academic achievement, and job-readiness; reducing antisocial behavior; and

providing avenues for more positive types of risk taking. Some degree of risk taking is a normal part of adolescent and teenage behavior.

### **The role of sports and recreation activities communities**

Although Indigenous participation in sports is somewhat lower than that of non-Indigenous Australians, approximately one-third of the population participates in some form of sporting activity. These participation rates demonstrate that sports and recreation activities are an important part of daily life for many Indigenous people. There are further reasons why sports and recreation programs play an important role specifically in the lives of Indigenous peoples and are a cost-effective means for supporting healthy communities:

- In remote communities, there is often limited infrastructure and programming to provide leisure and other pursuits, at times leading to engagement in unhealthy or negative activities. The evidence suggests that providing locally relevant sports and recreation programs can be useful in building a sense of purpose, hope and belonging in these communities
- In regional and urban areas where Indigenous individuals and communities are in the minority, these activities provide an opportunity for improved social inclusion in the broader community.
- Participation in these activities is also seen as a protective factor against substance abuse, self-harm and other negative behaviors'

### **Some specific facts regarding the recreational sports**

There are a number of caveats in the literature to the effects of participating in sports and recreational activities, and these should be noted. First, not everyone is interested in the same types of sports or recreation, so having only one option may limit the involvement of those not interested or not skilled, thereby contributing to increased social exclusion. Therefore, ideally a range of activities is recommended to allow everyone to participate fully in ways that are most effective in engaging them.

Second, some sporting and other recreational activities tend to be too expensive for disadvantaged and low-income groups and therefore may also contribute to increasing social exclusion. Other activities have been variously noted as producing an exclusionary impact upon some groups in the community on the basis of ability, class, gender or race. For example, girls in many communities may not be interested in playing football. Care needs to be taken therefore in selecting activities that will maximize community members' opportunities to participate.

Third, a small number of studies identified the problem of substance abuse in highly competitive sports. This issue should be monitored carefully in the development of any sporting or recreational program. Finally, it is important to note that direct causal claims about benefits are problematic because such benefits are often diffuse, long term and therefore difficult to measure. Measurements of outcomes and impacts therefore tend to be via indirect means or proxy measures, such as improved attendance and retention at school, or reduced ambulance and police call-outs.

### **What are the benefits of participating in sports and recreation programs?**

There are many documented benefits of how participation in sports and recreation programs is valuable for Indigenous communities and individuals. In this section, a profile of these benefits is provided. Several broad areas of benefit emerge in the literature—improvements in learning and education outcomes; countering boredom and reducing crime and antisocial

behavior; improved health and wellbeing; increased civic engagement; increased social inclusion; and opportunities for employment and economic development.

### **Improved learning and education outcomes**

Where Indigenous students have disengaged from school, sports activities and recreation have often been used as one of a combination of strategies to successfully re-engage them that is, to improve attendance, retention at school and academic achievement.

Participation in these programs has also been shown to improve a range of cognitive and social skills. These include:

- ❖ Self-discipline
- ❖ Self-confidence, cultural identity and pride.
- ❖ Goal setting and delayed gratification.
- ❖ Cooperation and conflict resolution.

### **The Sporting Chance Program**

The Sporting Chance Program aims to improve educational outcomes for Indigenous students (boys and girls) using sport and recreation as a vehicle to engage them in their schooling. There are two distinct components of the program: School-based Sports Academies for secondary students, and Education Engagement Strategies, for both primary and secondary students.

The academies offer 'innovative and high-quality sports-focused learning and development opportunity to engage students in school. The academies are intensive, offering mentoring and support to students at least once per week and in some cases every day, before, during and after school. The Education Engagement Strategies are less intensive, vary considerably and involve visits at least twice per year to the school of high-profile athletes, who stay in a community for 1–5 days and provide mentoring and role-modeling activities for young people.

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181
3. Source: Lonsdale et al. 2011.7

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## Sports and Sponsorship

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### Abstract

The authors investigating the relationship between sports-related event sponsorship and stock market valuation and identify factors that influence the financial rewards of sponsorship using World Cup and PGA tour sponsorship data. In particular, relationship between sports sponsorship with financial performance is examined in terms of sponsorship fit, event characteristics, and brand equity. Event study result that sponsorship for world cup and PGA is positively related to abnormal returns. Regression analysis indicates that unexpectedly brand equity and U.S. country of Origin is negatively associated with financial performance. However, U.S. sponsors with top brand value boost their abnormal stock return. Product fit enhances Short-term financial performance but the significant impact of event type on financial outcome was not observed.

**Keywords :** sports sponsorship, sports marketing, event study, brand equity, sponsorship fit.

### Introduction:

I speak on this topic with some experience considerable conviction. I will begin with my experience introduction Many Companies make investment to sponsor the big sports events such as Olympic, World cup and popular sports games. Although being official sponsor requires a huge amount of financial resource, it is expected to create more favorable outcomes including profit increase, improved stock returns, and positive advertising effect. While sports sponsorship were 7.8% of the size of advertising expense in 1985, they were 13.9% of the size in 2006 (BMI sport info.) Coca-Cola spent \$40 million to become an official sponsor of 1996 Olympic Games and an estimated \$5000 million to maintain this sponsor status (Shani andsandler 1996, opportunities are increasing for companies to connect their brands with the worlds most recognized sporting event (Syracuse, 2004). For example Bridgestone responded quickly when electronics firm NEC announced to drop sponsorship of the PAG tournament, Bridgestone was eager to raise awareness for Bridgestone was eager to raise awareness for Bridgestone Golf on the consumer level, and to develop a unique story against its competitors on trade level ( Meyer, 2006) Given this marketers have paid attention to the effectiveness of sports-related event sponsorship. The effect of sports sponsorship has been examined either in terms of consumer psychology or financial perspectives. However, Comprehensive explanation on effect of sponsorship of financial performance and consumer behavior mechanism have different point of view. Consumer psychological approach focuses on proses in which sports sponsorship is transferred into behavioral intention based on cognitive and affective psychological mechanism. Meanwhile, Scholars who approach to sponsorship in terms of stock market return tend to poy most attention to financial performance or outcome. Therefore, benefit of sponsorship mentioned above not been fully investigated because there is no integrative approach to sponsorship. Motivated by this gap, authors attempt to provide comprehensive understanding of sports sponsorship by taking both different approaches into. The objective of this study is to investigate association between sports sponsorship and financial performance and to identify sponsorship characteristic that

can enhance financial performance. In particular relationship between sports sponsorship with financial performance is examined terms of sponsorship fit, event characteristics, and brand equity. Based on literature review, a conceptual framework is developed and empirical testing is conducted using World Cup held in 1998, 2002 and 2006 and PGA golf tour in 2006 season case. Then, discussion about research findings and implication are followed empirical study.

#### **Literature Review on Sponsorship :**

“Sponsorship refers to provision of assistance either financial or in kind as activity to a commercial organization for the purpose of achieving commercial objective” (Meenaghan, 1983): Sports Sponsorship make it possible to link the aspiration and passion of a target audience to specific sports (Arun, 2004) in general, sponsorship holds a unique position in the marketing mix because is effective in building brand awareness, providing differentiated marketing platforms, facilitating direct business benefit and providing valuable, networking and hospitality opportunities (ADREVIWE). The number of companies sponsoring events has increased over the past decade. However, it is somewhat unclear how the effectiveness of event marketing activities can be measured. As mentioned earlier, approach to sports sponsorship can be divided into two research stream (See Table 1) One is the consumer psychology approach which incorporates effect of sports sponsorship in terms of consumers awareness, recognition and behavioral intentions. The other approach focuses on grasping the potential contribution of sports sponsorship to positive or negative changes in stock price. The effect of sponsorship on firm value in the stock market can be investigated in financial perspective.

#### **Consumer Psychological Approach :**

Consumer psychological approach to sports sponsorship has focused on consumer's cognitive and affective response. For example, awareness of sports sponsorship and brand name, recognition of sports event after termination and image fit between and sponsor are good example of research stream in perspective of consumer psychology and behavior (Bennett, Henson and Zhang, 2002, Koo, Morris and Flynn, 2006, Miloch and Lambert, 2006; Mason and Cochetel, 2006; Harvey, Gray and Despain, 2006)

#### **Financial Evaluation Approach :**

With the increased use of event study on sports-related sponsorship, marketers are able to assess the economic value of sponsorship. Much effort has been made to investigate stock influence of sports sponsorship on response in stock market using event study. Abnormal stock return has been a good indicator to identify stock price changes in stock market because of sports sponsorship (Miyazaki and Morgan, 2001; Kim and Morris, 2003; Prutt, Cornwell and Clark, 2004, Sneath, Finney and Close, (2005).

#### **Development to Research Framework**

##### **The Financial Impact of Sponsorship :**

As noticed earlier, many scholars proved that sponsorship may lead to increased financial performance using event study method. In these studies, sponsor's effort to contribute make sport event study successful would be converted to investor's positive evaluation of that sponsor company in two ways. On one hand. Being an official sponsor can be accepted in terms of advertisements as reliable appeal to consumers, investor and shareholders as well. Because we are living in the society flooded with mass advertising using mass media, undifferentiated advertising has little effect on consumer purchase and stock Market value. In this sense, sports sponsorship, as unique advertising, is expected to persuade the existing investor and shareholder to invest additionally or to attract new investors to buy

the stocks of the sponsoring company. The relationship between sports sponsorship and firm value has been identified using data on Olympic and NASCR sponsor (Miyazaki and Maorgan, 2001;prutt, Corwell and clark, 2004) On the other hand, sponsorship company may enjoy the positive and socially responsible image from sports sponsorship. Investors might have favorable impression to sponsoring company because they believe sponsors make much effort to facilitate sports all over the world and provide scholarship for sports Player. Similarly, by sponsoring sports event, Company may offer job opportunity to many sports Player to continue to continue to play on the ground or court under the stable financial environment. Given this, Sponsoring company can be accepted as good fellows that fully understand social responsibility, Resulting in increased investment from investors. Therefore, Research Setting

### **Methodology:**

The event study methodology is used to assess the impact of event's unexpected information on the firm's stock process. The efficient market hypothesis asserts that a stock reflects all public Information about the firm, this only unexpected information can change the price of a stock (Fama,Fisher,Jensen and Roll,1969). The stock's abnormal return, the difference between the expected returns based on general market movement and the actual returns, provides an unbiased estimate of the economics worth of the event. In marketing area, event study approach has been used to examine the financial consequences of the relationship structure (Houston and Johnson, 2000) to assess the impact of celebrity endorsement contracts on the unexpected profitability of a firm (Agrawal and Kamakura, 1995) and to evaluate how the stock market return associated with a brand extension announcement depends on brand equity components (Lane and Jacobson 1995), Commonly event study follows four basic steps.

Identifying an event to be studied modeling the expected shareholder returns, estimating the unexpected shareholder returns and analyzing the unexpected returns (Kim and Morris,2003) Based on the process of event study. This study attempts to investigate the abnormal stock return following sports event and uses the CRSP Value Equally Weighted Return as the return on market index. After cumulative abnormal stock return is computed, regression modeling was conducted to estimate CAR during sport event based on the independent variables identified earlier.

### **Result and Discussion**

#### **Event Study Result and Discussion :**

This event study is applier to world cup and PGA. The expected shareholder returns are predicted using the past returns during the estimation period a control period of time before date of events. Thus, the estimation period reflects a period not influenced by the events. This study set the estimation period as 225 days for world sup and PGA for 60 days before events.

#### **Summary:**

The concept of sports sponsorship still holds good in establishing effective and efficient advertising strategy in today's marker place. In other words, sports sponsorship in one of the best ways to build a communication path toward consumers (Buchan 2006), The present study attempts to investigate the potential effect of sports sponsorship on changes in value in terms of stock price by adding sponsor's brand equity, sponsorship fit and event characteristics. Unfortunately, not every company sponsoring World Cup and PAG enjoys significantly positive cumulative abnormal returns but the short-term financial Performance

can be enhanced by brand value. Product fit was identified as a potential driver that enhances Short-term financial performance. Brand equity and image fit between event and sponsoring company play a key role in explaining the association between sponsorship and financial performance. The event characteristics such as event, sports type and popularity may moderate in transferring sponsorship into increased financial outcome but result show there is no impact of those factors.

#### **Implications:**

Critical elements in the success of event marketing can be defined based on this empirical result. It is essential for companies to assess their brand value and sponsorship fit in selecting most appropriate audience (Shami and sadler,2006) For example, exposure to professional tennis Grand slam broadcasting and indirect advertising of official sponsor are expected to create favorable image toward sponsoring companies that provide prize money and technical support. Viewers and big fans may feel that sponsors are one of the main characters just as tennis played or sponsors who contribute to promote successful tournament. The research findings indicate that is not obvious that company with strong brand power enjoy more benefits from sponsoring than poor branded company. Of course, company with less strong brand power may have difficult in sponsoring the big main sports event but if the condition is the same to each other, high brand equity is not always expected to leads to more improvement in time value. Given this, sponsorship by company unfamiliar and low brand equity sponsors may result in high brand awareness and recall. Even if Sony, one of the most remarkable global companies, sponsors big sports event, their existing brand image my be damaged because of the perceived saturation of consumers toward the sponsored advertising and sponsorship.

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## Effect of Yogic Practice on Blood Sugar of Obese Women

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### Abstract

Blood Sugar can be a contributing factor in the development of many health disorders, negatively affecting physiological and physical well-being. Unfortunately diabetes does not diminish with time but continues throughout one's life. Research suggests that daily Yoga and Pranayama practice are effective simple methods to reduce level of blood sugar. The purpose of this paper is to study the effects of Yoga (Pranayama and Asana) on acute blood sugar on house wives.

To study the effect of regular Yogasana and Pranayama practice in reducing the level of sugar in blood of house wives and mostly non-working women, the researcher has chosen experimental design, consisting of one group that was experimental group. This group got Yoga and Pranayama training. Pre-test and post-test programs were organised before and after Yoga and Pranayama training period. Subject was 50 house wives of Mumbai Central area in Mumbai, Maharashtra. Sample has taken by random selection process. The training period was 12 weeks, five days in a week (Monday to Friday) and for one hour daily.

### Result

The mean value of Blood Sugar measurement for the group has reduced from 124.88 (pre-test) to 117.94 (post-test) with standard deviation of 9.42 (pre-test) and 9.85 (post-test). The difference of mean is 6.94. The obtained value of t score 6.241 is statistically significant at 5% level of confidence with degree of freedom 49. The table value is 1.677. Hence the reduction in Blood Sugar level on the group of experimental on non-working obese ladies posts yogic training period is significant.

### Introduction

Human being is all mechanically working their bodies with day to day chores. They need a physically and mentally fit body to complete these chores successfully. Yoga has always been a very good component in enhancing one's physical attributes mental stability and overall health. Yoga may be defined as an educative process with the help of physical activities and relevant knowledge in order to achieve a definite impact on one's habits so as to make him or her conductive, happy, long recreate and productive life style. Yoga results in one's total development by improving his or her physical, mental, social, emotional and spiritual health through physical activities, regular yogic practice and relevant knowledge.

Those who practice yoga daily, as ritual would experience great deal of peace and joy in mind. Such persons always think in positive way and lead a very happy life. Yoga has got the potential to bring prosperity and happiness to anybody from any profession. Since yoga brings about suitable changes in the physical, physiological, psychological, emotional behavioral pattern and attitude of the person, the interpersonal relationship at home and in society also improves. This is the reason why western countries are following Indian life style including yoga. They have understood that yoga is a 'means' to manage blood sugar to lead a healthy and happy life.

### Little Essence of yoga

Yoga is a traditional and cultural science in India. Yoga is commonly known as generic term for a physical, mental and spiritual discipline originating in ancient India. Maharishi Patanjali in yogsutra has recommended eight stages for the purification of the body,

mind and breath. These stages that constitute 'Ashtangayoga' are Yama, Niyama, Asana, Pranayama, Pratyahara, Dharma, Dhyana and Samadhi.

#### **.Little Essence ofpranayama**

The word Pranayama is formed by two words Prana and Ayama. Prana means vital force which provides energy to different organs and also controls many vital life processes (circulation, respiratory systems). Ayama signifies the voluntary effort to control and direct this Prana. Breathing is one of the vital activities governed by Prana on a gross level. This is the only Pranic activity available to us, which could be regulated voluntarily. Prana is simply a 'breathe' and Ayama means a control over the breath.

#### **What is Blood Sugar (Diabetes)?**

The blood sugar concentration or blood glucose level is the amount of glucose (sugar) present in the blood of a human. The body naturally tightly regulates blood glucose levels as a part of metabolic homeostasis.

With some exceptions, glucose is the primary source of energy for the body's cells and blood lipids (in the form of fats and oils) are primarily a compact energy store. Glucose is transported from the intestines or liver to body cells via the bloodstream; its uptake by cells is regulated by the hormone insulin, produced by the pancreas. Glucose levels are usually lowest in the morning, before the first meal of the day (termed "the fasting level"), and rise after meals for an hour or two by a few millimoles.

#### **PURPOSE OF THE STUDY**

The purpose of the present study has been to investigate the effect of yoga and pranayama on blood sugar level of obesenon-workingwomen. The results of survey revealed that regular yogic practice have proved to be blessings for the people suffering with high blood sugarlevel and even in the present modern world. It improves concentration power; it has proven effective as mode of treatment for physiological disorders.

#### **METHODOLOGY**

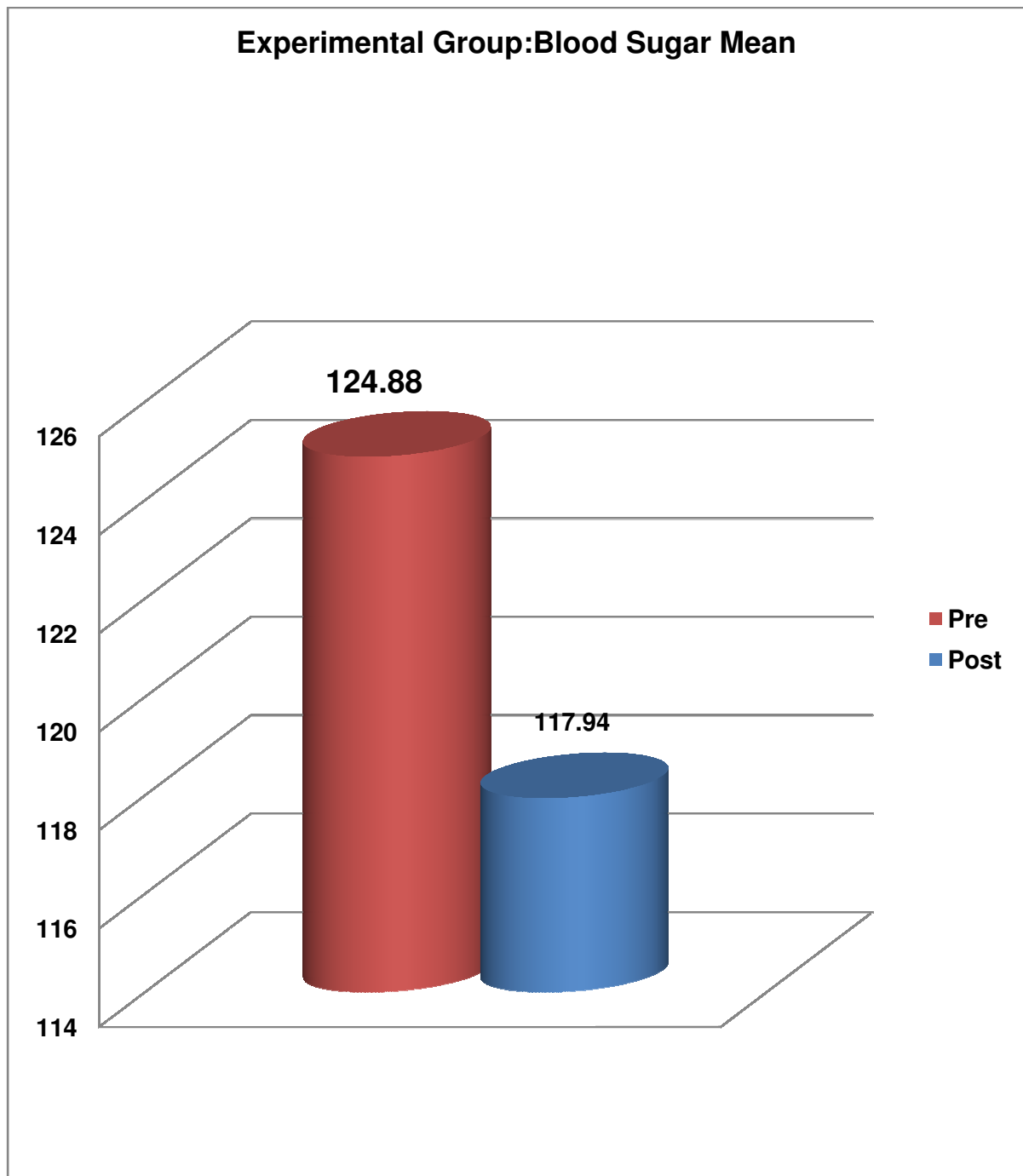
##### **Following procedure adopted to carry out the study.**

50 numbers of obese non-workingwomen of south Mumbai hasselected as subjects for the study. The age of the subjects areranging between 35 to 50 years with average of 40 years.An experimental group consisting of 50 subjects. Subjectshave selected a random selectionprocess. The pre and post test conducted according to the experimental period. Measurements have taken prior to and after the completion of experimental period. Experimental period was 12 weeks, five days in a week (Monday to Friday) and time duration is one hour.

Blood sugar level is measured by the digital glucometer with one touch module. Research scholar asks the student to sit on the chair with left or right hand kept on the table and relax. A test strip is inserted in the meter to turn the meter ON. Research scholar then pricks on the tip of the middle finger with the help of one touch digital glucometer module gently squeezes the finger to get one round drop of blood. The test strip inserted in glucometer is lined up with the blood drop with narrow channel of the test strip touching the blood drop. After blood sample fills the strip wait for the meter to show blood sugar or glucose level. The complete process is taken under expert supervision.

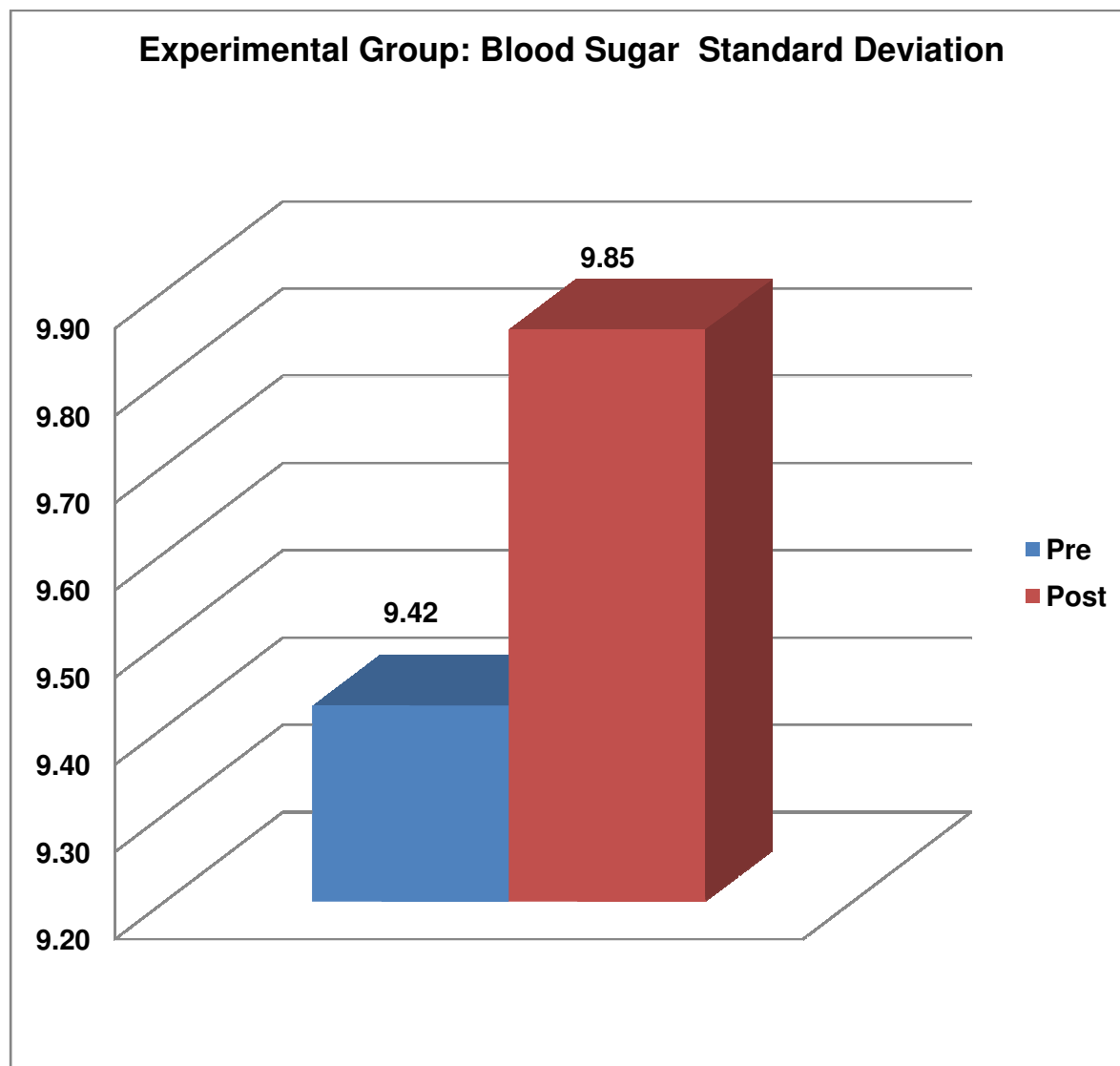
##### **Difference between means of pre and post three months yoga training on Blood Sugar of Experimental Group**

Variable	Mean		Difference
	Pre	Post	
Blood sugar	124.88	117.94	6.94



**Experimental Group on Blood Sugar :Mean  
 Difference between standard deviation of pre and post three months yoga training on Blood Sugar of Experimental Group**

Variable	Standard deviation		Difference
	Pre	Post	
Blood sugar	9.42	9.85	-0.43



### Experimental Group on Blood Sugar :Standard Deviation

#### Results

The mean value of Blood Sugar level measurement for the group has reduced from 124.88 (pre-test) to 117.94 (post-test) with standard deviation of 9.42 (pre-test) and 9.85 (post-test). The difference of mean is 6.94. The obtained value of t score 6.241 is statistically significant at 5% level of confidence with degree of freedom 49. The table value is 1.677. Hence the reduction in blood sugar level on the group of experimental non-working obese ladies post yoga training period is significant.

#### Discussions

A training course in yoga and pranayama was found to have led to highly significant improvement in the subject's physical, physiological health. Keeping the above studies in mind an attempt has been made to study the effect of yoga and pranayama on level of blood sugar (diabetes) of the subject.

**Conclusion**

From the above study and analysis concluded that regular Yogasana Pranayama training or practice shows a significant effect on level of blood sugar decrease of obese ladies.

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## **Effects of Different Reinforcement on the Improvement of Underarm Service in Volleyball of School Children Aged 8 to 11 Years**

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### **Abstract**

Learning is a lifelong process and there are number of ways in which an individual can learn what he or she has to learn. As it is known the behaviour of an individual is also a part and parcel of learning. In order to strengthen or weaken a certain kind of actions or behaviour one is either given a positive boost or a negative feedback, this positive boost that makes a behaviour or action stronger is known as 'Reinforcement. The purpose of the study was to see the Effect of different reinforcement on the improvement of underarm service in volleyball of school children aged 8-11 years. Two experimental groups with 30 students (boys and girls), in each group were randomly selected as subjects. Group I underwent the training program Module A i.e The reinforcement with the combination of positive and negative reinforcement. Group B under went the training program Module B i.e with the combination of positive, negative and punishment reinforcement. Pre and post test were conducted administering under arm service to all the selected subjects. Paired T- test was applied to analyse the collected data. From the findings it is concluded that both the Module A and Module B showed significance improvement of under arm service in volleyball of school children aged 8 to 11 years.. Also Module A was more effective than Module B.

**Key words:** service, module, reinforcement, punishment, rewards

### **Introduction**

Learning is a cognitive process and needs to be handled with care and exactness to achieve the learning motives as well as desirable aims. In order to boost the learning process many strategies, need to be adopted in adequate proportion, such as environment, facilities, rewards, challenges or methodologies. If the process tackles with different and potential reinforcements, it may help to adopt the learning phases rapidly. "Reinforcement is a stimulus which follows and is contingent upon a behaviour and increases the probability of a behaviour being repeated. Positive reinforcement can increase the probability of not only desirable behaviour but also undesirable behaviour". (Smith, 2008). Reinforcement Psychologist have given prominent attention on the power of consequences, rewards, punishment, and removing something unpleasant to change behaviour than other method. The best way in to enhance certain actions, reactions & behaviours in modern times is by the application of reinforcement. A key to achieve without negative impact on the mindset, emotions, or physical abilities.

**Objectives of the Study**

- To study the effect of reinforcement module A .....on the improvement of under arm service in volleyball of school children aged 8 to 11 years.
- To study the effect of reinforcement module B..... on the improvement of under arm service in volleyball of school children aged 8 to 11 years.
- To compare the effect of reinforcement module A and module B on the improvement of under arm service in volleyball of school children aged 8 to 11 years.

**Hypotheses of the study**

**H<sub>01</sub>:** The effect of reinforcement module A with combination of positive and negative reinforcement will show significance improvement of underarm service in volleyball of school children aged 8-11 years.

**H<sub>02</sub>:** The effect of reinforcement module B with combination of positive, negative and punishment reinforcement will show significance improvement of underarm service in volleyball of school children aged 8-11 years.

**H<sub>03</sub>:** The effect of reinforcement module A with combination of positive and negative will be more effective from the module B with the combination of positive, negative and punishment of underarm service in volleyball of school children aged 8-11 years.

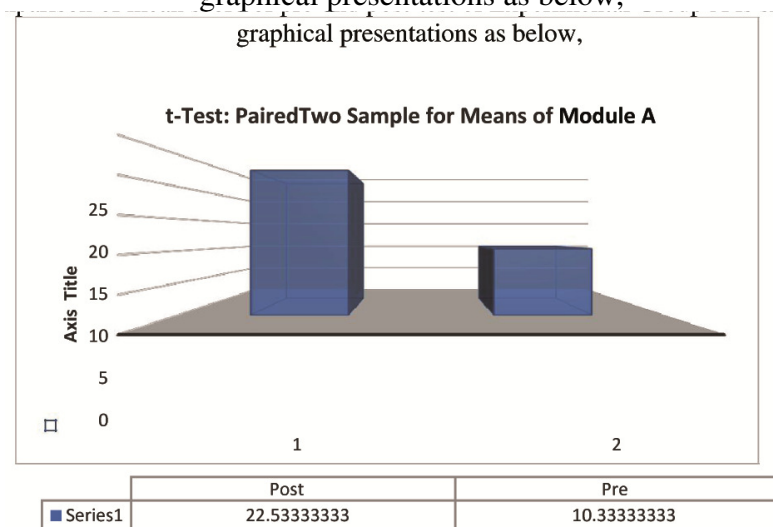
**Design of the study**

The study was based on experimental research which falls under the category of applied research. The purpose of the study was to see the Effect of different reinforcement on the improvement of underarm service in volleyball of school children aged 8-11 years. Two experimental groups with 30 students (boys and girls ), in each group were randomly selected as subjects. Group I underwent the training program Module A ie The reinforcement with the combination of positive and negative reinforcement. Group B under went the training program Module B i.e with the combination of positive, negative and punishment reinforcement. Pre and post test were conducted administering under arm service to all the selected subjects.

**Analysis and Interpretations of Data**

The data were collected prior and post of the treatment for the module A and module B. To observe the significance, paired T- test were applied.

Comparison of mean score of pre-and post-test of Experimental Group A is shown in graphical presentations as below,



The values of the mean, standard deviation and standard error of the mean for the data on module A in the post and pre-treatment are shown in Graph 1. These values can be used for further analysis.

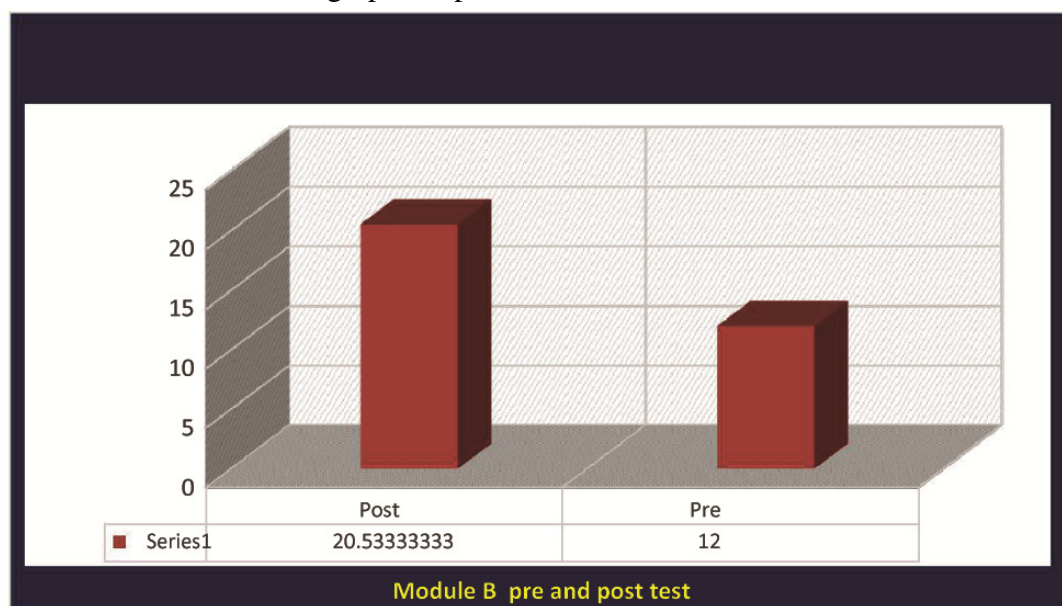
Graph 1 revealed that the value of  $t$  ( $= 5.99$ ) is greater than the 1.699127 (critical value). Hence the  $H_{01}$  may be rejected at significance level of 0.05.

$$H_{01} : \mu_{\text{post}} = \mu_{\text{pre}}$$

$$H_1 : \mu_{\text{post}} > \mu_{\text{pre}}$$

Since  $H_{01}$  has been rejected, it may be concluded that the module A is effective in improving the Underarm Serve of Volleyball in children aged 8-11 years.

Comparison of mean score of pre-and post-test of Experimental Group B is shown in graphical presentations as below,



The values of the mean, standard deviation and standard error of the mean for the data on module in the post and pre-treatment are shown in Graph 2. These values can be used for further analysis.

Graph 2 indicate that the value of  $t$  ( $= 10.00042$ ) is greater than the 1.699127 (critical value).

Hence the  $H_{02}$  may be rejected at significance level of 0.05.

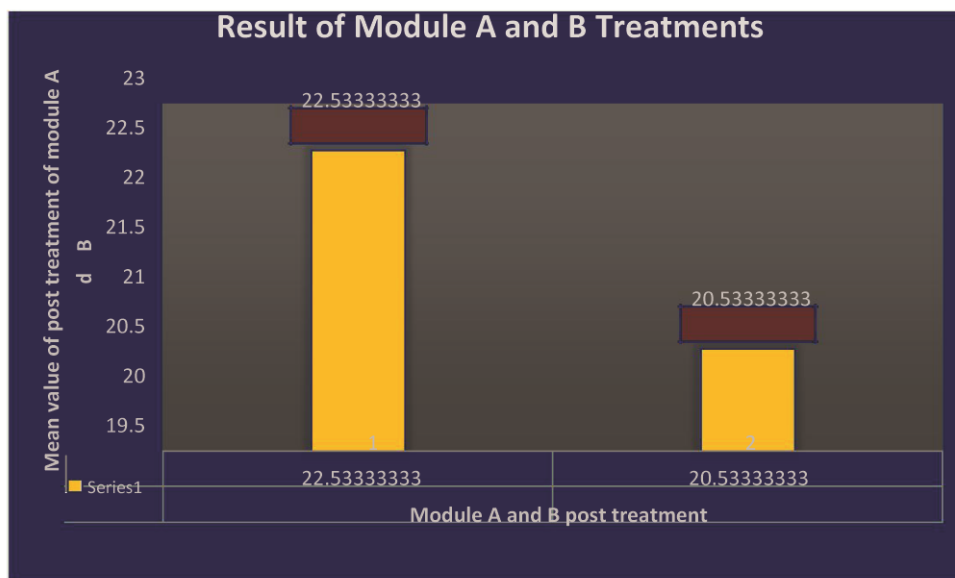
$$H_{02} : \mu_{\text{post}} = \mu_{\text{pre}}$$

$$H_2 : \mu_{\text{post}} > \mu_{\text{pre}}$$

Since  $H_{02}$  has been rejected, it may be concluded that the module B is effective in improving the Underarm Serve of Volleyball in children aged 8-11 years.



Comparison of mean score of post-test of Experimental Group A and B is shown in graphical presentations as below



The values of the mean, standard deviation and standard error of the mean for the data on module in the post and pre-treatment are shown in Graph 3. These values can be used for further analysis.

Graph 3 indicate that the value of  $t$  ( $= 1.806804$ ) is greater than the 1.699127 (critical value).

Hence the  $H_0$  may rejected at significance level of 0.05.

$$H_0: \mu_{\text{post}} = \mu_{\text{pre}}$$

$$H_3: \mu_{\text{post}} > \mu_{\text{pre}}$$

Since  $H_0$  has been rejected, it may be concluded that the module A is more effective than the module B in improving the Underarm Serve of Volleyball in children aged 8-11 years.

### Findings

As per the statistical analysis the findings were drawn:

The mean value of module A was more than the mean value of module B among the two experiments.

Reinforcement is very helpful for the children to learn or adapt the skill or learning quickly and effectively.

Both the modules (M-A and M-B) significantly contributed to adapt the skill and decrease the errors while serving the volleyball.

Combination of different reinforcement together proved to be much more beneficial because the performance level increased drastically

Resistance band exercises assisted to fix accurate movement pattern as well as application of force in right direction which ultimately effect on better learning of underarm service of volleyball.

**Conclusions**

- The reinforcement module A with the combination of positive and negative reinforcement showed significance improvement of **under arm service in volleyball of school children aged 8 to 11 years.**
- The reinforcement module B with the combination of positive, negative and punishment reinforcement showed significance improvement of **under arm service in volleyball of school children aged 8 to 11 years.**
- The reinforcement module A in compare to module B found more effective to improve **under arm service in volleyball of school children aged 8 to 11 years.**

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## Holistic Health Awareness among Youths

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### Abstract :

Holistic health is an age old concept wherein health is considered to reflect on the personality and interaction with prevalent environment. The present study focuses on awareness about holistic health among youths. The awareness towards the concept of holistic health and its parameters like physical health, psychological health, social health and spiritual health among adolescent was studied in a view to analyze the mindset of students from two environments, rural and urban.

Samples were drawn from students studying pre-university course in Science randomly in Bhandup suburb of Mumbai and Shirgaon in Ratnagiri District representing urban and rural environments respectively. A questionnaire was given to them after discussing the objectives of the study. The responses were subsequently analyzed.

Though among the urban as well as rural students various aspects of health are held equally important, social health seems to be a concept either not understood properly or is being ignored in both the environments. Same is in the case with spiritual health. The responses indicate lack of maturity and paucity of experience in life. Their conceptual understanding of holistic health seems yet underdeveloped. Though the students from both the environments seem to understand the need and role of physical health sufficiently well, there seems to be a need to enlighten the students more on the concept of balanced diet. The study also revealed that the preferences of rural students are becoming same as or even more advanced than those in the urban environment.

**Key Words:** Holistic health, youth

### Introduction :

Holistic health is a well-established concept and has several aspects the main ones being physical, psychological, social and spiritual. (Loretta Kopelman, et al) Adapting to a specific environment is an outcome of these aspects of health. Even WHO considers health as physical, psychological, social as well as spiritual wellbeing of an individual. Health for all is mission of WHO and Indian government has also made policies to achieve the same goal. The basic concepts of health, balanced diet and healthy habits are a part of curriculum at primary, secondary as well as higher secondary school. It is, however, necessary to assess how much they have imbibed these concepts and are they adopting these in their day to day living. India has maximum percentage of youth as compared to other countries and it can be intriguing to establish how much awareness is there among youths about the concepts related to health. Major portion of Indian population lives in villages and therefore in present study was planned to involve samples of populations of youths from rural and urban environments.

The present study is an attempt to find out awareness towards holistic health among

youths from urban and rural environments.

#### **Material & Method :**

A questionnaire was designed with three types of question; The first type was multiple choice based, the second type was open ended and the third type was the one which student had to give preference to different options.

For analysis of mindset of students from two environments, rural and urban youths were considered and random samples of 50 higher secondary school students studying in science faculty were drawn from Bhandup, a suburb of Mumbai and Shirgaon, a village from Ratnagiri District. The students were thus of the same age group and similar educational background. They were given the same questionnaire after explaining the purpose of the survey. The questions in the questionnaire were designed such as to cross check the sincerity, consistency and truthfulness with which they would respond. Following cross checking, 13 responses out of 50 and 15 out of 50 from urban and rural population were eliminated due to the inconsistency in their responses. Finally 35 responses from each of these populations were considered for the final analysis.

For the type I questions the percent responses to each option of a question were calculated for further analysis. In type II, open ended questions the time durations were considered in 4 classes of frequencies and the percent responses from each of these classes was considered in subsequent analysis. The type III questions were those where the responders were asked to prioritize the events.

The questions pertaining to the concepts of holistic, physical, psychological, social and spiritual health were grouped together so as to generalize the analysis of students towards the main concept of health.

#### **Results:**

Questions I, II and P<sub>1</sub>, P<sub>3</sub> represented formed the set of questions pertaining to the concept of holistic health. Students in rural population held all aspects of health like physical, psychological, social and spiritual contributing to the health more strongly (94.87% responding in favor) than the urban population (71.4% responding in favor). Physical fitness was considered least significant (0% responses in favor) by the rural population as against the urban population (14.3% responses in favor). Similarly psychological fitness was regarded as important as physical fitness (11.4% responses in favor of each) by the urban students while only a minor percentage (2.9%) of rural population considered it more significant than other fitness categories. Surprisingly a comparable though small number of students from both environments attached separate high significance to spiritual health (2.9% each in favor). Social health was not considered with an importance greater than other heads of fitness by both population (zero percent response in favor). To correct the deviations in health, the students of both rural and urban populations prefer Ayurvedic therapy (40.2 and 37.1% response in favor) with second high preference to Allopathy (37% and 34.3% responses in favor). Homeopathy is a preference by a considerable proportion of rural student (28.7% response in favor) while it seems much less popular in urban environment (8.6% responses in favor). Naturopathy seems known only in urban population that gave higher response than to homeopathy (20% responses in favor) while from rural population none voted for it. Students from urban population placed physical health in highest priority (1<sup>st</sup> and 2<sup>nd</sup> priority each by 13 & 17 students) while psychological fitness was held at 1<sup>st</sup> and 2<sup>nd</sup> priority in 18 and 10

responses respectively. The rural population, understandably placed physical aspect of health above the psychological aspect (a total of 32 responses and 25 responses keeping these at 1<sup>st</sup> and 2<sup>nd</sup> category). Only a tiny fraction of both rural and urban populations held social and spiritual aspects of health at 1<sup>st</sup> and 2<sup>nd</sup> priority. Social aspect of health was the last priority for 68.4% of the rural students while only 5.7% of the urban student held it as last priority. None of the urban students placed spiritual aspect of health at last priority but 25.7% of the rural students did consider it as the last priority

Meditation was among the top two priorities for 77.1% of the urban students while only 34.2% of the rural students allocated this much importance to it. In contrast to it 60% of the rural representatives held meditation as 3<sup>rd</sup> and 4<sup>th</sup> priority while only 22.9% of the students from urban area placed it at the comparable place. Workout in gymnasium was considered as 1<sup>st</sup> and 2<sup>nd</sup> priority by 39% of rural and 19.9% of urban students. Play ground activities were held at 1<sup>st</sup> and 2<sup>nd</sup> priority by 85% of rural population with 57% considering it as top priority. Among urban representatives however 45% placed these as 1<sup>st</sup> and 2<sup>nd</sup> priority while 40% gave 3<sup>rd</sup> priority to it. Yoga practice was least popular in both environments with 45.6% students from urban and 74.3% students from rural environment considered it at 3<sup>rd</sup> and 4<sup>th</sup> priority.

The questions 2, 3, 7, 10 and P<sub>2</sub> were considered related to physical aspects of health. The concept of balanced diet was found to involve maximum confusion among students from both urban and rural environments. The abundance of carbohydrates and proteins in the diet was the source of confusion. Only 31.4% of the urban and 11.5% of the rural students chose the appropriate combination of abundance of carbohydrates and proteins in the diet. Proteins as top priority was for maximum of the urban as well as rural students while carbohydrates and lipids were placed at 2<sup>nd</sup> priority, confirming this confusion. An equal number (7 out of 35 or 20%) of the urban students admitted to daily or weekly activities on play ground while among rural students only 11.5 and 4.6% students declared participation in playground activities on daily and weekly basis respectively. Occasional playing outdoors was by 28.7% urban and 11% rural students while 8.6% of urban and 11% of rural students seem not to visit playground at all. As against this junk food consumption was noticed to be at least once a week for 57.1% of urban and an astounding 69% of rural students. Daily consumption was reported by 22.8% urban and 20.1% rural students respectively. At least 5.8% urban students vouched no consumption of junk food though no students reported in this category from the rural students. Despite this 51.4% urban population and 37% of the rural students rarely need to visit a doctor. Only 2.5% students of rural environment visit doctor on a regular day to day basis though 22.8% of urban students do it.

The questions numbered 6 & 8 as well as 4, 5, 7 & 8 were planned to test students' understanding about psychological aspects of health. In urban environment reading, performing arts and sports was found to be equally popular hobbies though in rural population sports was most popular, followed by performing art and reading literature respectively. Physical activities play vital role in relieving pressure and stress among adolescents. (Haugland S.B. et al) Surprisingly (and may be deceptively) only 6 out of 35 students from urban and 9 out of 35 students from rural environment admitted to a hobby related to electronic gadgets. Pressure due to competition is experienced occasionally or regularly by 37.1 and 48.6% urban while 60.4 and 23% rural students respectively. Only 2.9% and 8.6%

students from urban and rural environment admitted no competitive stresses while 11.4% urban and 8.6% rural students could not decide whether they suffered from such pressure at all. Among the urban population a total 25% students placed visiting temple at 1<sup>st</sup> and 2<sup>nd</sup> priority while 74.2% of rural students held the same. Visiting garden was chosen among first 2 priorities by 12 out 35 urban and 19 out 35 rural students. Using library was expressed as 1<sup>st</sup> and 2<sup>nd</sup> priority by a total of 24 out of 35 students from urban sector and 16 out of 35 students from rural sector. Going to restaurant was surprisingly given identical priority by urban and rural students (25.5% and 25.6% students respectively). The most prioritized recreational activity was praying for both urban and rural students while painting and music was least popular. Visiting cinema was a top priority only for 14.8% of the urban and 11.4% of the rural students. Theater did not seem to excite students from either environment. Study was the most prioritized concern for urban students in comparison to the rural students, for whom job was the top priority. Health was a major concern for 48.5% of the urban but only 25.2% of the rural students. Students from urban environment held relations as the lowest concern though one third of the rural students held it as a major concern. Almost half of the urban populace surveyed, considered traveling as the most pleasurable activity while 40% of the rural population too was of this opinion. Driving and owning vehicle seemed to fascinate fewer urban students but more rural students. Reading seems excite very few students from either of the environments. Listening to music was also found to be marginally more popular in rural population than in urban one. Meditation was considered a prioritized pleasure by 22.8% of both urban as well as rural students.

The views of students on social aspect of health were sought by question numbered 9, 13, P<sub>6</sub> & P<sub>9</sub>. Rendering help to family members was daily a chore for 37.1% in urban but for only 20.12% rural students is involved in the study it was so. In urban environment 46% and in rural environment 69% students rendered help when required. Among urban students there was none who never extended such help while 5.7% of the rural students accepted that they never rendered help to family members. Contribution to social cause too was only occasional by 74.3% urban and 89.12% rural students while 20% of urban and 2.8% of the rural students were never involved in it.

Only a negligible number from both urban and rural environments attached top priority to girlfriend or boyfriend. In both environments parents were offered highest priority. Relatives counted very less in priority in of the groups while teachers or guru too was rated low in the priority by students in both urban as well as rural environment.

The sole question related directly to the spiritual aspect of health was question numbered 5. The students from both urban as well as rural population (62.9% & 58% in favor) declared to praying on a daily basis. About 20% urban and 35% rural students admitted to praying occasionally while an equal proportion (11.4% each) disclosed no praying at all.

#### **Discussion:**

Though among urban as well as rural students various aspects of health are held equally important social health seems to be a concept either not understood properly or is being ignored in both the environments. Same is the case with spiritual health. The responses indicate lack of maturity or experience in life. The students seem to be ignorant towards the concepts of food as medicine or importance of naturopathy. Their conceptual understanding of holistic health seems yet underdeveloped.

The students have admitted to practicing meditation particularly in urban environment, the response might as well be dubious as indicated by the responses to questions in other areas. As is understandable, rural students prioritize physical work out and play-ground activities more than the urban students. By and large, though, the students of both the environments seem to understand the need and role of physical health sufficiently well.

There seems to be a need to enlighten the students more on the concept of balanced diet. The easy access to doctors and a greater awareness/concern towards health of the wards in rural environment also has reflected in the results.

The analysis of responses pertinent to the psychological aspects of health reveals that the rural population is under greater stresses and strains though the physical aspects, at least partially, seem to compensate for the same. Probably this has reflected in the greater inclination of rural students towards visit to temple. Visits to restaurant are almost as frequent among students from both environments and the frequency of consumption of junk food is certainly a cause of concern.

Social responsibilities and even the responsibilities towards the family are yet to develop among the students. Though the parents have remained a top priority students, the teachers and relatives are not at a higher priority and this also is a cause of worry. Prioritizing expenditure is also an area where students seem to be confused.

Though the students in considerable numbers from both urban and rural population pray on daily basis there is much more to spirituality than this. Greater prioritization of meditation in urban than in rural population might be an aspect of it. An equal priority by urban and rural students to visiting temple might be another aspect. May be the students are yet to understand the depth of spirituality and might have placed their responses on impulse.

In conclusion, it can be stated that the rural environment is losing its advantages in favor of holistic health while urban students seem to have a poorer environment for maintaining the health but have a better understanding of aspects of health. The sample size however has been too small and the locations of the sampling have been too limited to put forth any strong conclusion in the subject.

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## **“Sound Mind in a Sound Body” for Attainment of All-round Kinship through Yoga**

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### **Abstract**

In Shrimad Bhagwad Gita, Lord Krishna says. The man who is competent of fighting the storms of lust and anger before the perishable body is ruin, he is the yogi in true sense and he is the felicitous man. Yoga in truer sense is an art of living. It is not an concoction of the individual, but it is a Sanjivani, a Prasadi for worldly man given by continuous search, sacrifice and asceticism of the saints, which makes like immortal. In this age of machines, the humans have detention miraculous, modern technologies to pilot a happy life and have made convenient tools for modern and hedonistic life. We should not denounce this development but as we incriminate ourselves in supplementary emaciation of these contraption, as we depend more and more on them, we will be fed up of these thing after some time we will endure desolate in the world, we will Perceive ourselves to be patchy and in satiated as a result, an concealed restlessness recite us edgy. Yoga is a Preventive Science. Today's affliction of modern human is having great disparity between material prosperity and inward peace. There is a tremendous amount of frustration. Restlessness both internally and externally which leaves several psychosomatic ailments. So, the importance of yoga is felt eagerly. The citation of yoga is named as one of the keys to a felicitous and affluent life in modern society.

**Keywords :** Yoga, Yoga sutra's, Need of yoga in modern age.

### **Introduction**

#### **YOGA**

Yoga is recognized as one of the most important and valuable heritage of India. Yoga is derived from the Sanskrit word 'Yuj' which means union of integration of Body + Mind + Soul in one direction which leads to success. To achieve supreme goal of human life yoga is necessary for complete eradication of sufferings and attainment of the state of 'Eternal Peace'. Life is nothing but the first and last breath. One of the aim of yoga is actions, speech and mind together every person practices yoga for all parts (angas) to some extent, but purification only comes when he develops his action, speech and mind together. Yoga helps in developing our total personality in an integrated and holistic manner.

The ultimate goal of yoga is, however, to help the individual to transcend the self and attain enlightenment. As the Bhagavad-Gita says, "A person is said to have achieved yoga, the union with the Self, when the perfectly disciplined mind gets freedom from all desires, and becomes absorbed in the Self alone." The true essence of yoga revolves around elevating the life force or 'Kundalini' at the base of the spine. It aims to achieve this through a series of physical and mental exercises. At the physical level, the methods comprise various yoga postures (asanas) that aim to keep the body healthy. The mental techniques include breathing exercises (pranayama) and meditation (dhyana) to achieve samadhi (discipline the mind).

"Yoga is an invaluable gift for mankind. It embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between man and nature; a holistic approach to

health and well-being. It is not about exercise but to discover the sense of oneness with yourself, the world and the nature. By changing our lifestyle and creating consciousness, it can help in well being of brotherhood.

### **Yoga sutra's (Aphorism)**

Yoga can be explained through different sutras. In Indian tradition Maharishi Patanjali is considered to be an authority of Yoga. Maharishi Patanjali has written the treaties which are in the form of sutras and popular known as 'Patanjali Yoga Sutra' which contains 195 Aphorisms divided in four parts (Samadhi, Sadhana, Vibhuti and Kaivalya), it helps to remove impurities of mind through yoga. One of the sutra given by Maharishi Patanjali about yoga was:

Yoga means: - "Yoga – Citta – Vrtti – Nirodha"

It means total control of all mental process

'Citta is derived from root word 'cit' means 'enlighten' 'to make aware'

Vrtti is derived from root word 'vrt' means 'to behave with suffix' - 'ti' means 'process of movement'

So the meaning of 'citta – vrtti' is behavioural mode of citta or modification

Yogacittavrttinirodha means:

Yoga is bringing to complete cessation the functional modification of citta. To bring the control of mental process abhays and vairagya are necessary. Yoga suggested several techniques and approaches to reach at goal. Maharishi Patanjali suggested Ashtang Yoga as a systematic path.

Abhyas Vairagyabhyam tannirodhan (sutra)

Abhyas means 'practice', Vairagya means 'detachment', This sutra explains the "control over vrttis", "Vairagya" (Detachment), A person who is disinterested in all objects comes under the state of 'vairagya', When over comes all the desires for all the objects with awareness, this state is called 'vairagya'. When a person want something but still going away for it is called detachment.

'Sa tu' dirghakala nairantarya satkarasevita (sutra)

'Sa tu' means personal, Dirghakala means long time duration, Nairantarya means continues / uninterrupted. Satkarasevita means welcoming / faithful attitude. This sutra explains the characteristics of 'Abhyas'

Therefore according to sutra "Yoga – Citta – Vrtti – Nirodha" means :- Complete cessation of modification of thoughts. We can have control on mind if we can introvert our sensory organs;

The information is picked by the senses and passes on to the mind, than it gives rise to the thoughts which results in emotions, than that emotions leads to feelings and feelings are translate as "ego"

Ego binds us and gives rise to "I", "Me", "My", "Mine".

Try as we may but, as long as ego persists, we can never free. By diligent practice we can trace the ego and be free from it.

It is all related to mind. Our tendency of mind plays an vital role:

Our mind is like river, some rivers flow towards the ocean and some simply lost into the ground, in the same manner our minds does. As long as the mind or the intellect of a person is impure and unsettled, the person is unable to understand the true meaning of yoga. One must have a pure heart and a tranquil mind to know and realize the truths of yoga. So the practice of yoga is the best way of self-purification, i.e. purification of body and the intellect.

To achieve the stability of Mind (vichar) five state of 'citta' is considered:



### 1) Impulsive (kshipta)

In this lowest state of mind, a person is highly agitated and unable to think, listen, or keep quiet. This is the most common state of the mind that most of us are in during our waking hours. This state is fully dominated by the guna 'rajas'. In this state, the mind is totally restless, jumping from one thought to another, from one emotion to the next and from object to the next. One oscillates between love and hate, likes and dislikes etc as a leaf flutters in wind. "It's like a monkey jumping up and down," Desikachar says. "Toss it a diamond, and it doesn't know what it is."



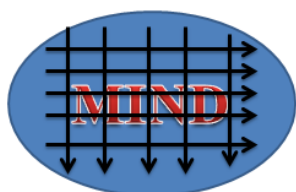
Thoughts are going in all different ways, mind is not stable.

### 2) Depressive (Mudha)

The mudha state is dominated by the guna 'tamas' in which the mind is dull, sleepy, lethargic and lacking any alertness. When you are mentally fatigued, you may throw up your hands saying, "my brain is fried, I need a break". All you want to do at that time is to be a "couch-potato" for some time. In the mudha state no productive work can be achieved.

During the waking state, one usually alternates between the kshipta and the mudha states. Rajas can propel us to be attracted toward an object of the senses. However, if we are denied that object, tamas can drive us into a state of sadness or even depression

In this state, no information seems to reach the brain. The mind is dull and listless. A person might be holding her key yet still ask, "Where is the key?".



Thoughts are going in one direction

### 3) Fascination (Vikshipta)

In our pursuits of life, material or spiritual, there are moments when the sattva guna begins to dominate and the mind can find moments of focus and concentration. However, old habits keep pulling the mind away from sattva and back to rajas or tamas. The Vikshipta state represents this pulling away from the partial state of concentration and is brought about by the nine impediments to concentration or vikshepas and their five companions. Literally, a mind under the influence of vikshepa is called vikshipta.

In our yoga practice, whenever we sit for meditation, we do find brief periods when the mind seems to be still and focused on the object of meditation. However, soon it gets distracted by other thoughts which are called the vikshipta state.

Here the mind receives information but seems unable to process it. The mind oscillates in confusion, with an inner chatter like "I want to do everything, but I can't do everything. Should I do this or that?"



Thoughts are less and going in one direction.

#### 4) One Pointed (Ekagra)

This, according to Vyasa, represents what Patanjali calls Samprajnata Samadhi. In this state the mind is fully focused on the object of meditation and the object becomes fully illuminated, realized and completely known. This is the state which can diminish the kleshas (afflictions) as given in sutra 2.3, loosen the bonds of karma and brings one closer to the final state of Nirodha. In a real yogic sense, only the perception of an object in the state of samadhi can be labeled as 'direct perception'. Normal perception through the five senses, which is commonly called 'direct' is in fact incomplete, incorrect, impaired and distorted because of the imperfections of the senses themselves, of the mind and buddhi as they are dominated by the negative ego. In this state, the mind is relaxed but not sleepy. The person is ready to focus and pay attention, which is a prerequisite to meditation. A good yoga class can bring the mind into this state of relaxed attention.



Thoughts are less.

#### 5) Cessation of Modification (Nirodha)

Vyasa equates the Niruddha state with what Patanjali calls Asamprajnata Samadhi. In this state no new samskaras (impressions) can arise. Even though past impressions still remain, they are made ineffective and can no longer cause any afflictions. In the state of Nirodha the mind continues to provide its normal functionality. However, it is now fully under the control of the yogi and all the vrittis (fluctuations) that happen is under the control of the pure, sattvic buddhi (intellect) as opposed to being controlled by the ego. When the state of nirodha is sustained for a long time, the mind gets finally dissolved into a state of equilibrium of the gunas which leads to final liberation (Kaivalya). Here the mind is not distracted by random thoughts but is fully absorbed in the object of focus. This can occur in meditation or when a person is fully engaged in something



Final state no thoughts.

The above classification of the states of the mind 'citta' helps us to analyze our own mental state and can help us make good progress in our yogic pursuits and kinship.

### **NEED OF YOGA IN MODERN AGE**

The modern day lifestyle is as such where humans strive with physical and physiological stress in their lives. This is where yoga comes as a retrieve to alleviate the physical and mental stress. Based on the holistic principles of harmony and unification within body and nature, Yoga's elementary postures abandon a powerful jolt against hectic lifestyle demands. It is not only a exceedingly panacea to stay fit, but has also transpire as an alternative form of therapy. Many chronic ailments like asthma, diabetes, blood pressure, arthritis have elevated a great solution in Yoga. These entire strands convey the reason why this proactive discipline should be the part of our lives. Spare than a discipline to stay fit and healthy, Yoga proceed as a link between an individual and his staunch inner self. This ancient science has precipitate time-tested ways to treat stress and ailments gifted by the modern lifestyle. This is the focal reason why yoga is still relevant in platter the modern day world.

With all this and much more to offer, the benefits of yoga are felt in a profound yet subtle manner. Here, we can have a look at some benefits:

#### ➤ **YOGA AS BROAD-SPECTRUM FOR FITNESS**

(Sri Sri Ravi Shankar) "Health is not a mere absence of disease. It is a dynamic expression of life – in terms of how joyful, loving and enthusiastic you are." This is where yoga comes in picture. Asanas, pranayama (breathing techniques) and meditation are a holistic fitness package. Performed regular an gain immense benefits Some very noticeable changes are: boost health, Transit mental strength, elevate physical strength, safeguard from injury and many more.

#### ➤ **YOGA FOR STRESS REMISSION**

Stress free from the routine day to day activities can be acquired by the yoga practice performed regularly or make a part and parcel of life. Body and mind gets stagnate by the habitual work. Yoga postures, pranayama and meditation are effective techniques to aids to look the life in more positive way and release stress and achieve calmness.

#### ➤ **YOGA FOR INTRINSIC PEACE**

Rather visiting or planning for expense tour or visiting different spots for happiness. The search ends within. Benefit from a small holiday every day with yoga and meditation. Yoga is also one of the best ways to which teaches you to stay calm when mind is upset.

#### ➤ **YOGA TO LIVE WITH GREATER COGNIZANCE**

Journey of past to future goes on in our mind without living in present and enjoying the essence of living in that moment. We tend to be the slave of the past and future. Awareness is very important. Yoga and pranayama help manages to bring the mind back to the present moment, where it can stay happy and focused with clarity.

#### ➤ **YOGA FOR BETTER KINSHIP**

Yoga can even help to improve the bond with your parents, friends or children. A mind that is calm, stress free, happy and contented is better able to deal with sensitive relationship matters. Yoga and meditation keeps the mind happy and peaceful; and watch how your relations with those around you blossom!

#### ➤ **YOGA TO ELEVATE ENERGY.**

Do you feel completely drained by the end of the day? Shuttling through chores, and multitasking continuously can be quite exhausting. A few minutes of yoga everyday provides the enhancement in energy level for carrying out the day to day activity without stress.. A 10-

minute online-guided meditation is all you need to charge up your batteries, in the middle of a hectic day.

➤ **YOGA TO IMPROVE SIXTH SENSE**

Yoga and meditation have the power to improve your perception ability so that you spontaneously realize what needs to be done, when and how, to yield positive results. It does work! You only need to experience it yourself.

**Conclusion:**

The pavement of yoga is known as path of love and devotion which is flawed in modern era. Yoga deploys the groundwork for understanding the mind and its structure, its functioning, its strengths and weakness and so forth which helps to erect feeling of brotherhood amongst others. Yoga affirm that the Soul can be discern even while we are alive, it states that the Soul, as pure consciousness, dwells within us, as a silent witness, and through a life of purification, through effort and gaining discrimination, the mind is quietened and we can realize our soul. Yoga remove the cover of ignores and develop the power of discrimination and will. It makes one into a gentle being and develops the zeal for giving in this way relation with others become harmonies. By properly channelizing our inner powers, we should rather try to discipline ourselves so as to attain and maintain normal health by controlling our senses and regulate our habits. In view of these underlying facts, all outward or materialist worlds can bring happiness of little moment but the inner peace can stable the life and bring enjoyment forever.

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