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EFFECT OF EXTENSIVE INTERVAL TRAINING AND INTENSIVE INTERVAL TRAINING ON SELECTED STRENGTH VARIABLES**Dr. Mrs. K. Joth*****R. Amirtharaj****

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Abstract:

Evidences show the difference between the trained and untrained individuals that the former is able to increase the cardiac output and transport oxygen to the working muscles at a higher rate than the latter. Extensive interval training and Intensive Interval training are suitable exercises for adults. The aim of this research is to find out the effect of extensive interval training and intensive interval training on selected strength variables among college men. For this purpose, randomly selected thirty college men were divided into three groups, extensive interval training, intensive interval training and control group. Suitable work schedules were drawn for both groups with adequate warm up and warm down exercises. The sessions lasted for 40 minutes in each day, on alternate days, forming three days a week. Statistical analysis of pre and post test means through ANCOVA and Scheffe's post hoc test proved that there was significant improvement in selected strength, leg strength and back strength. It was concluded that extensive and intensive interval training can be better utilized for improving strength variables especially among sedentary adults.

Keywords: Extensive Interval Training, Intensive Interval Training, Leg Strength & Back Strength.

Introduction:

Physical fitness is a capacity for sustained physical activity. It is to achieve success in every walk of life. The progress of one country depends mainly on the degree of physical fitness of the people. According to Willgoose(1961) "Physical Fitness provides capacity for doing all types of activities". Currently there is wide interest to identify the most effective methods of training for strength and endurance development and this is of special significance for physical education programmes in schools and colleges. Training is usually defined as systematic process of repetitive, progressive exercise or work involving the learning process and acclimatization. (Lawrence Gray Kumar, 2002). Evidences shows the difference between the trained and untrained individuals that the former is able to increase the cardiac output and transport oxygen to the working muscles at a higher rate than the latter.(Clark and Albert, 1952) "Training programme which have been used to improve sprinting ability include weight training, wind sprint and stairs sprint. Such programmes are designed to develop leg strength, leg speed, speed endurance and explosive power.

High-intensity interval training (HIIT) is an enhanced form of interval training, an exercise strategy alternating periods of short intense anaerobic exercise with less-intense recovery periods. These short, intense workouts provide improved athletic capacity and condition, improved glucose metabolism, and improved fat burning (Perry, Christopher G.R., et.al. (2008) . The extensive interval training constitutes the intermittent variation of exertion and active recovery periods within a training unit. Characteristics of the extensive interval method are medium or large exertion periods within the basic endurance range or within the strength endurance range with the duration of the recovery periods being half as long as those of the exertion periods. The extensive interval training constitutes the intermittent variation of exertion and active recovery periods within a training unit. Characteristics of the extensive interval method are medium or large exertion periods within the basic endurance range or within the strength endurance range with the duration of the recovery periods being half as long as those of the exertion periods. It is important to note that the recovery periods must not result in full recovery.

Faude O, et.al.(2013) compared the endurance effects of high-intensity interval training (HIIT) with high-volume running training (HVT) during pre-season conditioning in 20 high-level youth football players and found both training programmes seem to be promising means to improve endurance capacity in high-level youth football players during pre-season conditioning. Buchan DS, et.al. (2013) examined whether a high intensity training (HIT) intervention and found significant enhancements ($P \leq 0.05$) in vertical jump performance, 10 m sprint speed and cardio respiratory fitness and concluded high intensity exercise interventions may be used in the school setting for adolescents as a means of improving measures of physical fitness. Sandbakk O, et.al.(2013) tested whether a long duration of aerobic high-intensity interval training is more effective than shorter intervals at a higher intensity in highly trained endurance athletes and found a long duration of aerobic high-intensity interval training improved endurance performance and oxygen uptake at the ventilator threshold more than shorter intervals at a higher intensity. Nytroen K, et.al. (2012) demonstrated that a long-term, partly supervised and community-based HIIT-program is an applicable, effective and safe way to improve VO_{2peak} , muscular exercise capacity and general health.

Purpose of the Study:

The purpose of this research was to find out the effect of extensive interval training and intensive interval training on selected strength variables among college men.

Methodology:

To achieve the purpose pre and post test random group research design was adapted and thirty college men were randomly selected and their age group was between

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18 to 23 years. They were divided into three groups (n = 10) as Group I, Group II and Group III, in which Group I underwent extensive interval training and Group II underwent intensive interval training for a period of six weeks and Group III acted as control group. Extensive and Intensive interval training schedules were drawn suitably with adequate warm up and cool down sessions.

The investigator selected leg strength and back strength as the strength variables, for this study. The collected data from three groups prior to and after completion of the experimental period on selected variables were statistically examined by applying Analysis of Covariance (ANCOVA).

Results:

Table- I: Results on Calculation of Analysis of Covariance on Strength
(Scores in Kg)

Calculation of Analysis of Covariance on Leg Strength								
	Extensive Interval Training Group	Intensive Interval Training Group	Control Group	Source of Variance	Sum of Squares	Df	Mean Squares	Obtained F
Pre Test Mean	119.40	121.50	120.00	Between	23.4	2	11.70	0.26
Std Dev	8.02	6.20	5.83	Within	1230.9	27	45.59	
Post Test Mean	126.70	124.20	121.70	Between	125.0	2	62.50	1.36
Std Dev	7.45	5.94	6.85	Within	1239.8	27	45.92	
Adjusted Post Test Mean	127.55	123.06	121.98	Between	173.3	2	86.66	16.70*
				Within	134.9	26	5.19	
Mean Diff	7.30	2.70	1.70					
Calculation of Analysis of Covariance on Back Strength								
Pre Test Mean	50.20	48.70	48.10	Between	23.4	2	11.70	1.51
Std Dev	3.46	2.45	2.28	Within	208.6	27	7.73	
Post Test Mean	53.50	53.20	49.00	Between	126.6	2	63.30	11.24*
Std Dev	2.55	2.35	2.21	Within	152.1	27	5.63	
Adjusted Post Test Mean	52.58	53.43	49.69	Between	74.6	2	37.28	32.32*
				Within	30.0	26	1.15	
Mean Diff	3.30	4.50	0.90					

Required $F_{(0.05), (2,27)} = 3.354$, $F_{(0.05), (2,26)} = 3.369$ *Significant

Table- II: Scheffe's Post Hoc Analysis Results

Post Hoc Analysis for Leg Strength				
Extensive Interval Training Group	Intensive Interval Training Group	Control Group	Mean Difference	Reqd. C.I
127.55	123.06		4.49*	2.64
127.55		121.98	5.57*	2.64
	123.06	121.98	1.08	2.64
Post Hoc Analysis for Back Strength				
52.58	53.43		0.85	1.25
52.58		49.69	2.89*	1.25
	53.43	49.69	3.74*	1.25

*Significant

Discussions:

The results presented in Table 1 proved that the adjusted mean differences among the groups, extensive interval training group and intensive interval training group and control was significant as the obtained F value 16.70 was greater than the required table F value of 3.369. The Scheffe's post hoc analysis in Table 2 proved that leg strength of the extensive interval training group was significantly better than intensive interval training group and control group. However, the results on back strength showed that though both the experimental treatments significantly improved back strength comparing to control group, there was no significant difference between the treatment groups. Sandbank O,et.al.(2013) found a long duration of aerobic high-intensity interval training improved endurance performance and oxygen uptake at the ventilatory threshold more than shorter intervals at a higher intensity.

Conclusion:

In view of significant improvement on strength variables selected, the extensive interval training and intensive interval training may be suitably provided to the college men and other sedentary population.

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A COMPARATIVE STUDY OF HARDINESS BETWEEN MALE AND FEMALE FENCERS OF MANIPUR

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Abstract:

Hardiness refers to a combination of attitudes that provides the courage and motivation to do the hard, strategic work of turning stressful circumstances from potential disasters into growth opportunities. The purpose of the study was to investigate the difference between male and female national fencers of Manipur on hardiness. Forty (40) fencers (male= 20, female = 20) participated in the national fencing championships were recruited as the subjects. The age of the subjects ranged between 17 to 25 years. Abridge Hardiness Scale (AHS) developed by Kobasa, Maddi & Kahn (1982) was administered on the subjects. t-test was employed to analyze the data. Results of the study revealed that significant difference existed between male and female national fencers of Manipur on hardiness as well as on its control dimension.

Keywords: Hardiness & Fencing.

Introduction:

Fencing is a sport that allows armed combat including cutting, stabbing or bludgeoning weapons that are directly manipulated by hand, rather than shot, thrown or positioned. Fighters are often armed with swords, knives, bayonets, batons, pikes or clubs. Fencing also is an Olympic sport wherein numerous fencers compete at the amateur and professional levels.

The concept of hardiness evolved from existential psychology. It is considered that human search for authenticity by creating personal meaning through self-reflection, decision making and actions that promote personal growth. Stressful life events are inevitable challenges that provide opportunities for growth and the development of authenticity (Kobasa, 1979; Maddi & Kobasa, 1984).

Performance is the outcome of an athlete's biological, psychological, sociological and physical structure. In the games and sports, psychological and physiological factors play vital roles in determining the performance level. However, in recent times great importance has been laid to psychological parameters in competitive sports (Wadey, Evans, Hanton & Neil, 2011; Bawa, 2010; Nezhad & Besharat, 2010; Golby & Sheard, 2004; Hanton, Evans & Neil, 2003).

Methodology:

For the purpose of the present investigation 40 fencers (male = 20, female = 20) who represented Manipur state in the national fencing championships were considered as subjects.

For gauging the hardiness of the subjects a questionnaire developed by Kobasa, Maddi & Kahn (1982) was used. It is a 4 point Likert type scale consisting 14 items. Also there are 6 forced choice items and thus total number of items was 20. The data were obtained from the subjects by administering hardiness questionnaire during regular coaching camps organized to train fencers at the training centre located at Khuman Lampak, Imphal (Manipur) in 2011. These camps were jointly organized by Sports Authority of India (SAI) and Directorate of Youth Affairs and Sports, Manipur.

Data Analysis:

The obtained data were statistically analyzed by computing t-ratio to unearth the difference between two groups on Hardiness.

Results and Discussion:

Table-I: Indicating the mean difference between national level male and female fencers of Manipur on hardiness.

Variable: Hardiness				
Groups	Mean	Standard Deviation	't' Value	P
Male	28.95	3.41	2.03	< 0.05
Female	31.55	4.62		

Tabulated value of 't' at 0.05 level of significance with 38 df = 2.02

It may be depicted from the above table that there found to be a significant difference between male and female fencers on their level of hardiness ($t= 2.03$, $p < 0.05$). The results of the study are in line with the findings of Mahmoudi (2011) who studied gender and self-esteem as determinants of psychological hardiness among university students reported that females scored higher than their male counterparts on psychological hardiness. In another study Mehrparvar, Moghaddam, Raghobi, Mazaheri & Behzadi (2012) compared psychological hardiness and coping strategies between female athletes and non-athletes better and advocated that the female athletes was significantly better than the female non-athletes on psychological hardiness.

Female fencers were significantly better in regard to hardiness as oppose to their male counterparts as suggested by mean scores of two groups.

Figure-1: Illustration showing difference between national level male and female fencers of Manipur on Hardiness

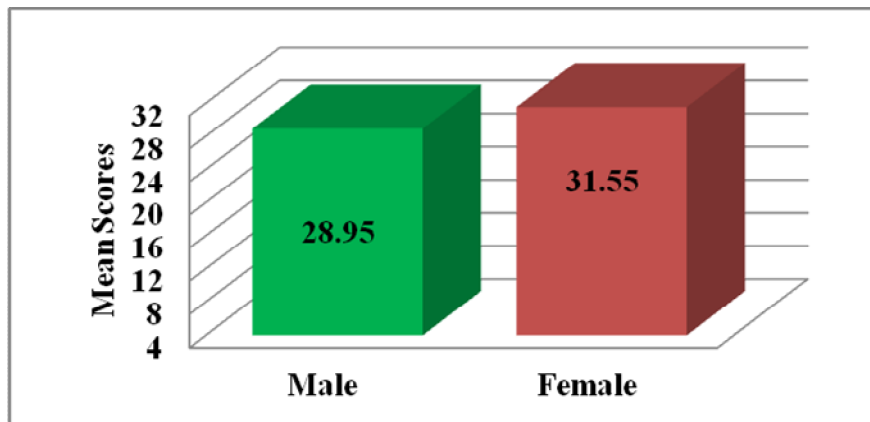
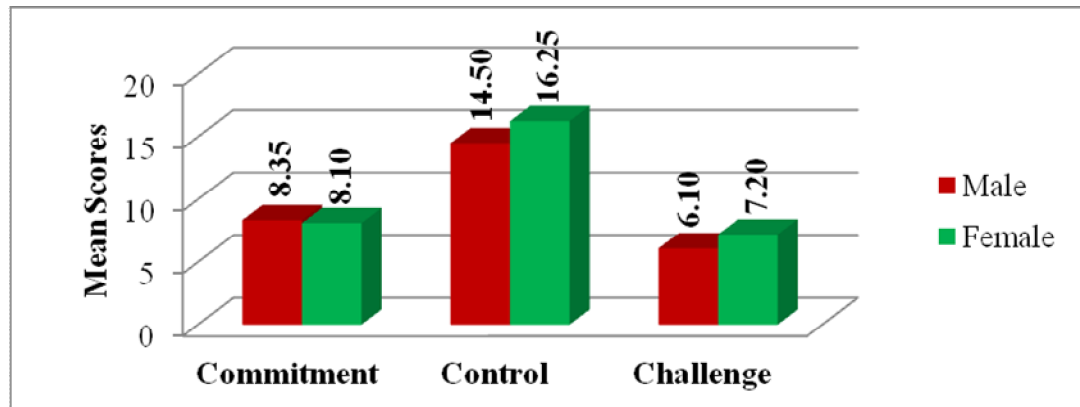


Table-II: Comparisons of dimensions of hardiness between male and female national level fencers of Manipur.

Dimensions of Hardiness	Male		Female		t-value	P
	Mean	SD	Mean	SD		
Commitment	8.35	1.66	8.10	2.05	0.42	> .05
Control	14.50	2.54	16.25	2.00	2.42*	< .05
Challenge	6.10	2.10	7.20	1.99	1.70	> .05

It may be seen in the above table & figure 2, that of three dimensions of hardiness, there has been a marked significant difference between male and female national level fencers of Manipur on only control dimension only as the 't' value = 2.42 was greater than the tabulated 't' value = 2.02 at .05 level. The results of the present study may be corroborated with the findings of Mahmoudi (2011) who found Female university students significantly higher on control dimension as well as global hardiness as compared to their male counterparts. Women have been reported to be psychological harder by a host of other researchers too (Hannah and Morrissey, 1986. O, Brien, 1994, and Voyce, 1996).

Figure-II: Illustration depicting difference on the dimensions of hardiness between male and female national level fencers of Manipur.



Conclusion:

On the basis of the results obtained from the present investigation it may be concluded that national level male and female fencers of Manipur significantly differ on their level of hardiness as well as on its control dimension. The findings also suggest that the level of hardiness of these female fencers falls in the category of high range which manifest courage and motivation therefore undertaking vigorous, tough and strategic task in order to turn the stressful and challenging circumstances into favorable ones in the highly demanding competitive conditions. Furthermore findings also indicated a marked significant difference between two groups of subjects on control dimension of hardiness. Female exercise better psychological control during the course of cut throat competition which enables them to maintain a required restrain and thereby add to their performance.

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THE CORRELATION OF SOCIOECONOMIC STATUS AND LOCUS OF CONTROL OF SPORTSMEN

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Abstract:

The purpose of the present investigation was to find the correlation of socio-economic status with locus of control of sportsmen. Research method is ex-facto research and to achieve this purpose 200 sportsmen were selected randomly as subject. Their age ranged from 20 to 25 years. They were administered by two questionnaires i.e., socio-economic status scale constructed by Bharadwaj and Chawan and another scale i.e., locus of control constructed by Rompal, 1989. The data pertaining to the variable in this study was examined by using 'r' test (person correlation). The calculate value is 0.124 and the table value being at 0.005. The significant positive correlation was found between socio-economic statuses with locus of control of the sportsmen. It is concluded that higher SES would facilitate to possess the internal locus of control, where as lower SES leads to possess the external locus of control among the personality of the sportsmen.

Keywords: Socioeconomic Status, Locus Control & Sportsmen.

Introduction:

The application of psychological principles to the improvement of performance on sports has received greater attention in these days. There are certain accepted psychological principles, which have to be applied. So that the athletes and players are able to show their best performance and consist for failure. Coaches, physical educationists and sports scientists have always expressed a great need to know more about socio psychological factors which are helpful in improving the behavioral and the motor skills of the player.

It is important to know about the role of SES factors on locus of control. It is also strongly believed that participation in sports is likely to influence the personality and mental health of the sportsmen. The construct of locus of control is being increasingly emphasized in personality functioning (Lefeaurt, 1978, Phares, 1976). Since it appears to be related to or influence several classes of behaviour locus of control has been found to be predictive of different social behaviour, learning, performance more or less achievement related activities.

The construct of locus of control was originally derived from Rotter's (1954) small learning theory. However, Rotter's (1966) later modification of the construct has been the focus of research interest in recent years.

There are two major theories related to locus of control that give the rational explanation of the development of locus of control and its operation. The self-efficacy theory propounded by Bandura addresses people's feelings of competences regarding an activity. This theory studies how people perceive their own ability to act successfully in the world.

Socioeconomic culture differences is produced by environment, whether it is past or present, family constitutes the most important part of the environment. The influences of family income and social status, customs and traditions have a great role to play in determining the types of personality of an individual. His attitudes belief systems towards life as well as towards games and sports.

Methodology:

In the present study a total of 100 samples have been taken, out of which 50 sportsmen of high SES and remaining 50 from lower SES has been selected from the 100 sportsmen. The sample age ranging from 20 to 25 years. Both scales SES and locus of control were administered to collect the relevant data in order to make a detail analysis of the study.

Simple Size

Higher SES	Lower SES	Total
50	50	100

Tools:

The socioeconomic scale constructed by Dr. Rajeeva Lochan, Bharadwaj and locus of control constructed by Rompal (1989) were used. Keeping in the view the 't' test was applied to test significant influence of Socio-economic status on locus of control variables.

Discussion and Analysis of the Result:

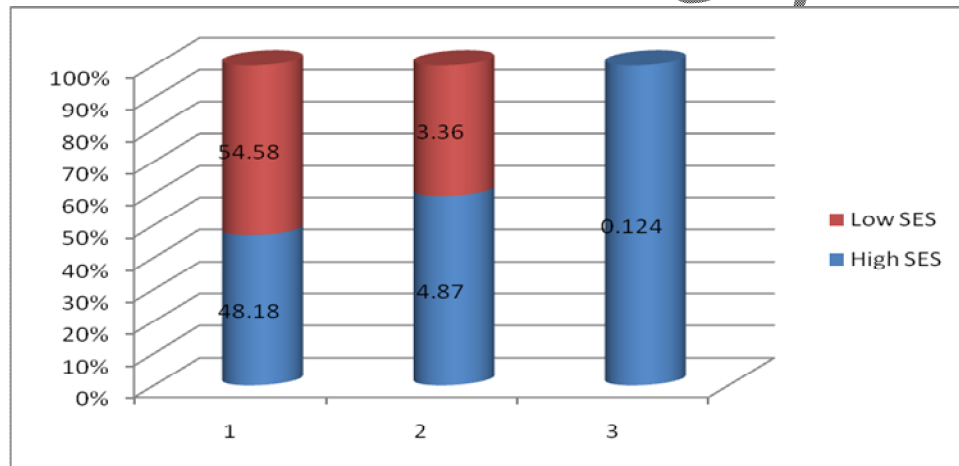
It is a well-known fact that attributing success or failure in the process of learning is greatly influenced by the reward and punishment sequence. If an individual achieves success or failure according to his expectation in many situation for a longer period. This will result in the development of the internal locus of control. The development of internal locus of control once developed firmly then an individual becomes confident in his way of achievement of success. On the other hand student socio and economic status also play an important role in determining the internal or external locus of control because the very exposure to the higher or lower socio and economic status will mould and re mould the style of perception and attribution of its members.

The table shows mean and 't' values of the locus of control between the high and low SES.

	High SES	Low SES
Mean	48.18	54.58
SD	4.87	3.36
R	0.124	

Table presents the mean, SD and 'r' values of locus of control of high and low SES sportsmen. The mean score of high SES sportsmen was 48.18 and low SES sportsmen is 54.58. The high score of the low SES indicates internal locus of control and relatively low mean score of high SES indicates the external locus of control. The 'r' value was 0.124 which was significant at 0.005 level and suggests that there was positive correlation between SES and locus of control.

Graph showing mean.Sd, Correlation of locus of control behavior of sportsperson



The above assumption was made on the basis of the logic that, as the parental social status in terms of healthy attitudes towards other members of the society will be increased an individual starts gain confidence in one's self, which will boost the belief of an individual to have full control over consequences. It is natural that any individual who is respected by people around him defiantly makes him to have control over the problem that arise in the process of adjustment.

Strictly speaking the position of a respect acquired by an individual the prestige secured in a given society of an individual definitely has a positive influence on the control over the consequences. The individual who has been brought up in the prestigious respectful environment develops the necessary skills to have control over the people in his interaction and become critical in his approach. As a result of that confidence in interpersonal interaction; the achieving the set goals is possible. The obtained results supports correlation between the SES and locus of control of sportsmen was found to be true.

Hence, formulated hypothesis i.e., there would be positive correlations in the beliefs systems of high SES and low SES of sportsmen in their locus of control is accepted.

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I.R.J.P.E.S.S.

**A CRITICAL ANALYSIS OF WALKING ON DIFFERENT SURFACES
ON SELECTED PHYSIOLOGICAL AND BIOCHEMICAL
VARIABLES AMONG OBESE MEN**

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Abstract:

The purpose of the study was to find out the effect of walking on different surfaces on selected Physiological and Biochemical variables among Obese Men. To achieve the purpose of this study, 30 obese men were randomly selected as subjects from the Chennai, Tamilnadu, India. The selected participants were divided into three groups such as Group A underwent mud walking (n=10) and Group B underwent concrete walking (n=10) and Group C acted as control group (n=10). The training period was one hour approximately. Every week, training given only three alternative days for twelve weeks. Control group was not exposed to any specific training but they were participated in regular activities. The data on selected variables of physiological and biochemical variable were collected by administering by radial pulse rate test and Lipid profile results respectively. The pre and post tests data were collected on selected criterion variables prior and immediately after the training programme. It was concluded that, the experimental group had significantly improved in selected variables such as physiological variable and biochemical variable and a significant difference in improvement was found among experimental and control groups in the selected criterion variables such as physiological variable and biochemical variable.

Keywords: Walking, Surfaces, Physiological, Biochemical & Obese Men.

Introduction:

Obesity and overweight have in the last decade become a global problem - according to the World Health Organization (WHO) back in 2005 approximately 1.6 billion adults over the of age 15+ were overweight, at least 400 million adults were obese and at least 20 million children under the age of 5 years were overweight. Experts believe if the current trends continue by 2015 approximately 2.3 billion adults will be overweight and more than 700 million will be obese. The scale of the obesity problem has a number of serious consequences for individuals and government health systems.

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health, leading to reduced life expectancy and/or increased health problems. People are considered obese when

their body mass index (BMI), a measurement obtained by dividing a person's weight by the square of the person's height, exceeds 30 kg/m².

Dieting and physical exercise are the mainstays of treatment for obesity. Diet quality can be improved by reducing the consumption of energy-dense foods such as those high in fat and sugars, and by increasing the intake of dietary fiber. Anti-obesity drugs may be taken to reduce appetite or decrease fat absorption when used together with a suitable diet. If diet, exercise and medication are not effective, a gastric balloon may assist with weight loss, or surgery may be performed to reduce stomach volume and/or bowel length, leading to feeling full earlier and a reduced ability to absorb nutrients from food.

Obesity is a leading preventable cause of death worldwide, with increasing rates in adults and children. Authorities view it as one of the most serious public health problems of the 21st century. Obesity is stigmatized in much of the modern world (particularly in the Western world), though it was widely seen as a symbol of wealth and fertility at other times in history, and still is in some parts of the world. In 2013, the American Medical Association classified obesity as a disease.

Walking (also known as ambulation) is one of the main gaits of locomotion among legged animals, and is typically slower than running and other gaits. Walking is defined by an 'inverted pendulum' gait in which the body vaults over the stiff limb or limbs with each step. This applies regardless of the number of limbs - even arthropods, with six, eight or more limbs, walk.

In the UK and the Irish Republic the term walking is used to describe either walking in a park or trekking in the Alps. However, in Canada and the USA the term for a long, vigorous walk is hiking, while the word walking covers shorter walks, especially in an urban setting.

Methodology:

To achieve the purpose of this study, 30 obese men were randomly selected as subjects from Chennai, Tamilnadu, India. The selected subjects were divided into three groups namely experimental 1, experimental 2, and control group. To achieve the purpose of the study, the criterion variables selected for this study was Resting pulse rate and Blood lipids.

Training Programme:

The selected participants were divided into three groups such as Group A underwent walking on mud (n=10) and Group B underwent walking on concrete (n=10) and Group C acted as control group (n=10). The training period was one hour approximately. Every week, training given only three alternative days for twelve weeks.

Control group was not exposed to any specific training but they were participated in regular activities.

Test Administration:

The data on resting pulse rate and Blood lipid level were collected by administering by radial pulse rate test and Lipid profile result respectively. The pre and post tests data were collected on selected criterion variables prior and immediately after the training programme. The collected data were statically analyzed by using analysis of covariance (ANCOVA). It is used to determine the differences if any, among the adjusted post test means on selected criterion variables separately. The level of significance was fixed at 0.05 level of confidence.

Table-I
**THE SUMMARY OF MEAN FOR THE PRE AND POST TEST DATA ON
SELECTED VARIABLES OF EXPERIMENTAL GROUP 1,
EXPERIMENTAL GROUP 2 AND CONTROL GROUP**

Criterion Variables	Mean	Experimental Group 1	Experimental Group 2	Control Group
Resting Pulse rate	Pre Test	83.3	80.8	83.5
	Post Test	82.1	79.8	83.3
Blood Lipid Level	Pre Test	2157	2196	2240
	Post Test	1992	2025	2265

The analysis of covariance on criterion variables of Resting pulse rate and Blood Lipid level for Experimental groups and Control Group have been analyzed and presented in Table- II.

Table-II
**THE ANALYSIS OF COVARIANCE ON CRITERION VARIABLES OF
EXPERIMENTAL GROUP 1, EXPERIMENTAL GROUP 2
AND CONTROL GROUP**

Criterion Variable	Experimental Group 1	Adjusted Post Test Means		Source of Variance	Sum of Square	Df	Means Square	F-ratio
		Experimental Group 2	Control Group					

Resting Pulse rate	81.4365	81.3001	82.4634	B	7.94	2	3.97	1.31*
				W	78.98	26	3.04	
Blood lipid level	201.5357	202.5957	224.0684	B	2866.53	2	1433.27	98.49*
				W	378.34	26	14.55	

Significant at 0.05 level confidence. Table value at 0.05 level confidence with df 2 and 26 are 1.31 and 98.49* respectively.

From the table – II, the obtained value of ‘F’ – ratio for resting pulse rate for adjusted post test mean was lesser than the table value and Blood lipid level for adjusted post test means was more than the table value of 3.369 for df 2 and 26 required for significant at 0.05 level of confidence. The result of the study indicated that significant differences exist among the adjusted post test means of experimental group 1, experimental group 2 and control group on the improvement of Resting Pulse rate and Blood lipid.

Conclusions:

From the analysis of the data, the following conclusions were drawn:-

- The experimental groups had significantly improved in selected variables such as resting Pulse rate.
- The experimental groups had significantly improved in selected variables such as Blood Lipid level.
- A significant difference in improvement was found among experimental group 1, experimental group 2 and control group in the selected criterion variables such as Resting Pulse rate and Blood lipid.
- Among the two experimental groups, the Experimental group-1(mud walking group) had significantly improved in selected variables such as Resting pulse rate and Blood Lipid level than Experimental group-2(concrete walking group).

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EFFECT OF ASANAS AND PRANAYAMA ON BLOOD PRESSURE**Sandipraj S. Autade*****Amit N. Tamboli******Dr. B.R. Himalayan*****

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Abstract:

Eighty four Blood Pressure subjects between the age group of 40-59 years were studied to see the effect of 120 days of Yoga asanas and pranayama. The experiment was conducted on the veteran males with one type of disorders i.e. hypertension. The subjects of the hypertensive patients were divided into three groups (viz. yoga, self learning, and control). This research included 28 subjects of yoga group, 28 subjects of self learning group and 28 subjects of control group. In this research subjects who suffering from blood pressure for last 1 to 5 years are selected. The yoga and self learning groups was realized six days a week, over a period of 4 month, and duration of each individual exercise was 60 minutes in evening time and was given training by the Yoga expert. The basic descriptive statistic parameters were calculated for all the result, and the difference between pre, mid and post measuring was determined by ANOVA (Analysis of Covariance) and Scheffe's post hoc test. The result revealed that yoga (i.e. asanas and pranayamas) training continued to bring down the systolic and diastolic blood pressure to a normal range among the hypertensive.

Keywords: Blood Pressure, Asanas & Pranayama.**Introduction:**

During exercise the strain on muscles increases, the requirement for blood and oxygen increases but in Yogasana the requirement goes down as there are no strains and every muscles is relaxed, the requirement for blood and oxygen goes down. This also reduces the strain on mind; the mind also becomes stable and focused. Also because of twists and stretched postures, the functioning of endocrine glands, digestive organs, heart and organs improves. To achieve this even simple Yogasanas are helpful, one can easily practice these yogasanas and get the best for himself.

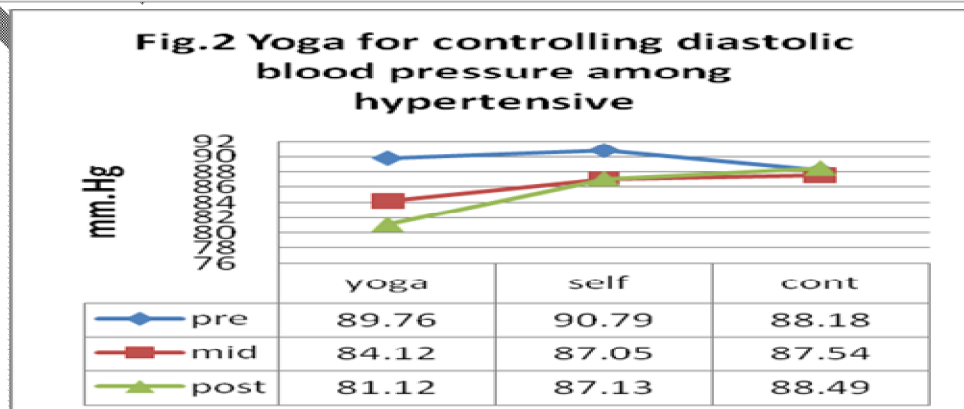
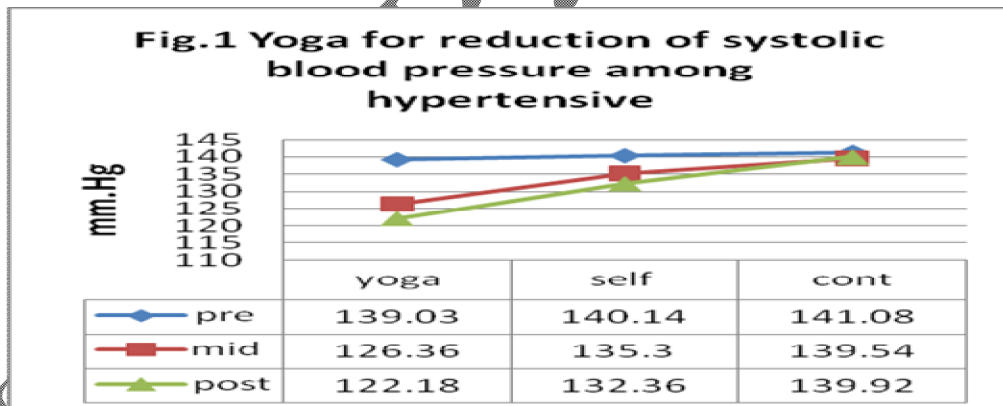
Pranayama is control of breath, breathing and blood circulation system, heart have close relation between them. Also these are dependent on mental activities. If mental strain increases the breathing rate is affected. In Pranayama the breathing is controlled and the rate is reduced, which reduces the strain on heart and also the rate. This increases the stability of mind and mental activities are also controlled. Even simple breathing exercise like Deep breathing, Quiet Breathing help reduce the mental stresses and strains. There for asanas and pranayamas controlled the blood pressure. Old reports have

indicated that some asanas and pranayama are harmful for heart disease and hypertensive and should be performed with caution. This study of individual Asanas and Pranayamas was undertaken to understand the effect of changing postures on the blood pressure.

Methodology:

84 subjects age 40-59 years randomly selected from Karvenager, Pune (India). The subjects were divided randomly in three equal groups. (viz. yoga, self learning, and control). This research included 28 subjects of yoga group, 28 subjects of self learning group and 28 subjects of control group. In this research subjects who suffering from blood pressure for last 1 to 5 years are selected. The yoga and self learning groups followed the program of instruction for the period of six times a week, over a period of 4 month, and duration of each individual exercise was 60 minutes in evening time and was given training by the Yoga expert. The data was collected before, after 2 months and after 4 months of experimental period. The yoga asanas and pranayamas regime included the Suryanamaskar, Yogmudra, Matyasana, Siddhasana, Padmasana, Pashimottansana, Sarvangasana, Vajrasana, Pawanmuktasana, Dhanurasana, Bhujangasana, Supta-Vajrasana, Mayurasana, Shirshasana, Shavasana, Bhastrika pranayama, Kapalbhathi, Anulom-viloma, Bharamari, Udgit-om uccharan. Every one received personalized attention and supervision of a yoga expert during yoga sessions.

Results:



Thus, the information, obtained from the measures of central tendency and dispersion, as presented in Tables 4.1., revealed that all the training interventions i.e., 'Yoga' and 'Self Learning' may have the treatment effect in controlling the Blood pressure among the patients with hypertension.

The overall result revealed that all the training interventions could record reduction in systolic blood pressure during mid test. However, during post test the trend of improvement in systolic blood pressure was evident especially among the subjects of yoga group only, whereas the self learning and controlled subjects did not show any change in systolic blood pressure. Finally, on post-test, the result revealed that yoga (i.e., asanas and pranayamas) training continued to bring down the systolic blood pressure to a normal range among the hypertensive. (Fig.1)

The overall result revealed that all the training interventions could record significant reduction in diastolic blood pressure during mid test. However, during post test the trend of reduction in diastolic blood pressure was evident especially among the subjects of yoga group only, whereas the self learning and controlled subjects did not show any change in systolic blood pressure. Finally, on post-test the result revealed that yoga training.(Fig. 2)

Discussion of Result:

The stress and stress-induced disorders like hypertension and angina are fast growing epidemics and bane of "modern" society. With increasing scientific research in yoga, its therapeutic aspects are also being explored. Health and natural remedies among people by yoga has been proven an effective method for improving health in addition to prevention and management of disorders. Yoga is reported to reduce stress and anxiety, improves autonomic functions by triggering Neuro hormonal mechanisms by the suppression of sympathetic activity.

The results of this study revealed that yoga practices introduced to the subjects with hypertension could significantly reduce the systolic and diastolic blood pressure to the normal level. The present study dealt with the impact of the asanas and pranayama straining and the result revealed that such intervention was helpful to reduce blood pressure to the normal level.

Conclusion:

The 'self-learning intervention' could reduce blood pressure during mid-test (i.e., after 2 months of experiment), whereas no change in blood pressure is evident during post-test (i.e., after 4th month of experiment). However, the schedule of 'asanas and pranayamas' for 4 months (i.e., 1st 2 months and 2nd 2 months of experiment) brings significant trends of reductions in blood pressure in hypertensive. Thus, yoga training

(i.e., asanas and pranayama) was found better than ‘self-learning’ and ‘control’ groups respectively in controlling blood pressure among hypertensive.

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COMPARISON OF NETBALL PLAYERS OF DIFFERENT LEVELS ON SELECTED PHYSIOLOGICAL VARIABLES

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Abstract

The purpose of this study was to compare the netball players of different level on selected physiological variables. Ninety male netball players from different universities those who participated in intercollegiate' and inter- varsity championship. Selected Physiological Variables were Resting Pulse Rate, Resting Blood Pressure, Vital Capacity and Resting Respiratory Rate. Mean and standard deviation of selected physiological variables were calculated and three different levels i.e. beginners, intermediate and advanced were compared by using analysis of variance. In order to test the hypothesis, level of significance was set at 0.05. It was concluded that variability does not exist among the netball players of different groups with respect to their Selected Physiological Variables i.e. Resting Pulse Rate, Resting Blood Pressure, Vital Capacity and Resting Respiratory Rate.

Keywords: Netball, Physiology, Resting Pulse Rate, Resting Blood Pressure, Vital Capacity & Resting Respiratory Rate.

Introduction:

Netball is a ball sport played by two teams of seven players. Its development, derived from early versions of netball, began in England in the 1890s. By 1960, international playing rules had been standardized for the game, and the International Federation of Netball and Women's Netball (later renamed the International Netball Federation (INF) was formed. As of 2011, the INF comprises more than 60 national teams organized into five global regions.

Games are played on a rectangular court with raised goal rings at each end. Each team attempts to score goals by passing a ball down the court and shooting it through its goal ring. Players are assigned specific positions, which define their roles within the team and restrict their movement to certain areas of the court. During general play, a player with the ball can hold onto it for only three seconds before shooting for a goal or passing to another player. The winning team is the one that scores the most goals. Netball games are 60 minutes long. Variations have been developed to increase the game's pace and appeal to a wider audience.

Netball is most popular in Commonwealth nations, specifically in schools, and is predominantly played by women. According to the INF, netball is played by more than 20 million people in more than 80 countries. Major transnational competitions take place, including the Netball Super league in Great Britain and the ANZ Championship in Australia and New Zealand. Three major competitions take place internationally: the quadrennial World Netball Championships, the Commonwealth Games, and the yearly World Netball Series. In 1995, netball became an International Olympic Committee recognized sport.

The physiological system of the body must function well enough to support the physical activity that a player is performing. Moreover, different activities make different demands with respect to circulatory, respiratory and other systems of the body.

Objectives of the Study:

The following were the objectives for the study:-

- To compare the netball players of different level in relation to Resting Pulse Rate.
- To compare the netball players of different level in relation to Resting Blood Pressure.
- To compare the netball players of different level in relation to Vital Capacity.
- To compare the netball players of different level in relation to Resting Respiratory Rate.

Methodology:

Ninety male netball players consisting of 30 subjects in each group of different levels (beginners, intermediate and advanced) from different universities those who participated in intercollegiate' and inter- varsity championship were selected as subject for this study. Subjects were ranging from 18-25 of years age group. The variables selected for this study were: Resting Pulse Rate, Resting Blood Pressure, Vital Capacity and Resting Respiratory Rate. The data pertaining to Physiological variables were obtained by using the following criteria:-

- Resting pulse rate was recorded while the subject was in sitting position and recorded in terms of numbers of pulse per minute.
- A sphygmomanometer (dial type) and a stethoscope were used to measure blood pressure (systolic and diastolic).
- Vital capacity was measured in liter by using Spirometer.
- Resting respiratory rate was recorded while the subject was in supine position which was recorded in term of the total number of inhalation and exhalation per minute.

Analysis of Data and Results of the Study:

Mean and standard deviation were computed in order to understand the physiological profiles of each group separately. One way analysis of variance was utilized to compare the different groups i.e. beginners, intermediate and advanced.

Table- I
Mean and Standard Deviation of Physiological Variables of Different Groups of Netball Players

S N	Variables	Beginners		Intermediate		Advanced	
		M	S.D.	M	S.D.	M	S.D.
1	Resting Pulse Rate	51.33	6.989	51.90	5.616	51.73	7.192
2	Resting (Sys) Blood Pressure	112.83	7.43	113.77	6.72	112.37	7.83
3	Resting (Dias) Blood Pressure	84	10.09	85.10	8.51	83.67	9.95
4	Vital Capacity	2.70	0.31	2.72	0.30	2.68	0.28
5	Resting Respiratory Rate	18.93	1.84	19.47	1.63	18.97	1.87

M = Mean, S.D. = Standard Deviation

Comparison of Different Groups of Netball Players in Relation to Selected Physiological Variables

The subjects of different groups namely beginners, intermediate and advanced level were compared. The results of analysis of variance are presented in Table -2-6 and figure 1-5.

Table -II
Analysis of Variance of Different Groups of Netball Players in Relation to Resting Pulse Rate of the Subjects

Source of Variance	Df	SS	MSS	F -ratio
Between Groups (B)	2	5.089	2.544	0.058
Within Groups (W)	87	3831.23	44.037	

$N=90, F_{.05} (2, 87) = 3.11$

As evident from Table 2, that variability does not exist among the netball players of different groups with respect to resting pulse rate. Since the value of F-ratio was not found to be significant at .05 level. Results are presented in figure - 1.

Fig.I
Comparison of the Means of Different Groups of Netball
Players In Relation To Resting Pulse Rate

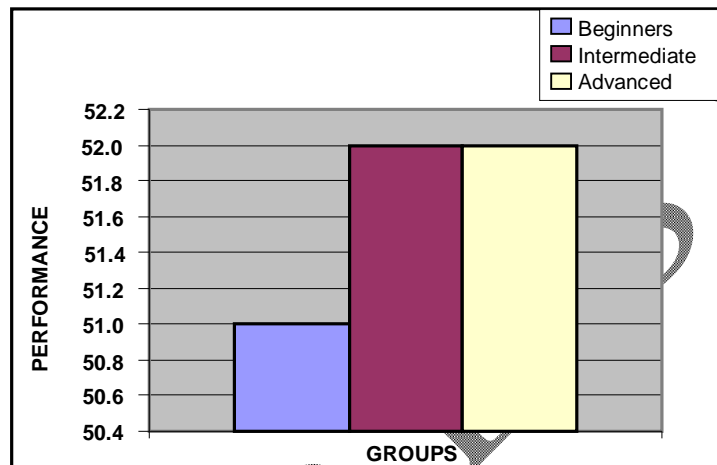


Table -III
Analysis of Variance of Selected Groups of Netball
Players in Relation to Resting Systolic Blood Pressure

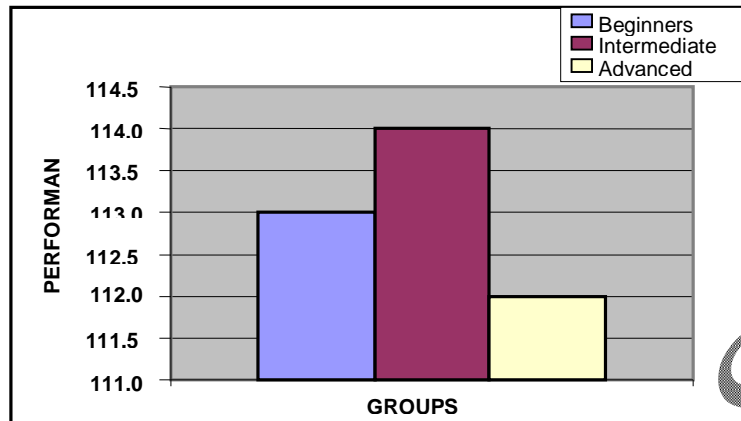
Source of Variance	df	SS	MSS	F -ratio
Between Groups (B)	2	30.49	15.24	0.283
Within Groups (W)	87	4688.50	53.89	

$N=90, F_{.05} (2, 87) = 3.11$

As evident from Table 3, that variability does not exist among the netball players of different groups with respect to resting systolic blood pressure. Since the value of F-ratio was not found to be significant at .05 level. Results are presented in figure – 2.

Fig. II
Comparison of the Means of Different Groups of Netball
Players in Relation to Systolic Blood Pressure

Table -IV
Analysis of
Different



Variance of
Groups of

Netball
Players in Relation to Resting Diastolic Blood Pressure

Source of Variance	Df	SS	MSS	F -ratio
Between Groups (B)	2	33.76	16.88	0.216
Within Groups (W)	87	6799.37	78.15	

N=90, $F_{.05}(2, 87) = 3.11$

As evident from Table 4, that variability does not exist among the netball players of different groups with respect to resting diastolic blood pressure. Since the value of F-ratio was not found to be significant at .05 level. Results are presented in figure – 3.

Fig. III
Comparison of the Means of Different Groups of Netball
Players in Relation to Diastolic Blood Pressure

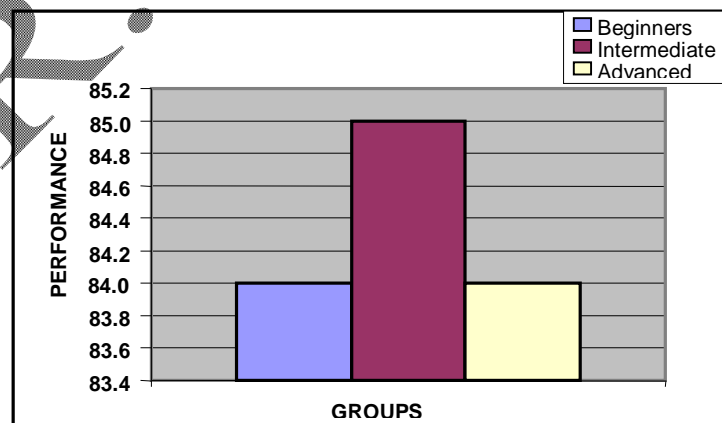


Table -IV
Analysis of Variance of Different Groups of Netball
Players in Relation to Vital Capacity

Source of Variance	Df	SS	MSS	F -ratio
Between Groups (B)	2	0.033	0.016	0.187
Within Groups (W)	87	7.61	0.087	

$N=90, F_{.05}(2, 87) = 3.11$

As evident from Table 4, that variability does not exist among the netball players of different groups with respect to vital capacity. Since the value of F-ratio was not found to be significant at .05 level. Results are presented in figure - 4.

Fig. IV
Comparison of the Means of Different Groups of Netball Players in Relation to Vital Capacity

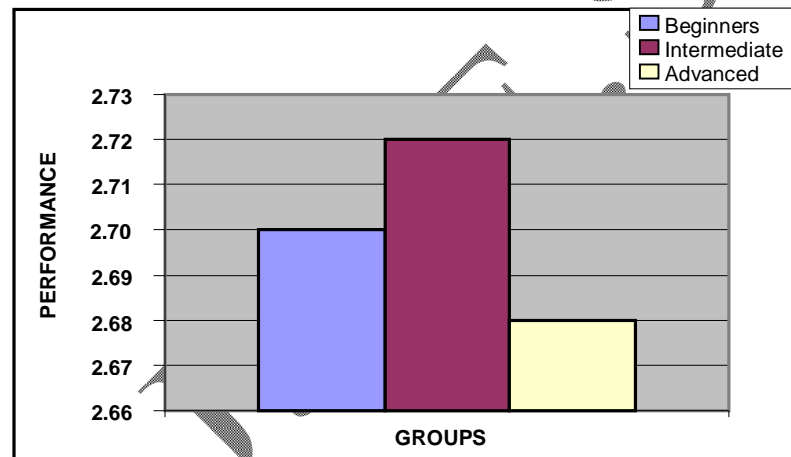


Table -V
Analysis of Variance of Different Groups of Netball Players in Relation to Resting Respiratory Rate

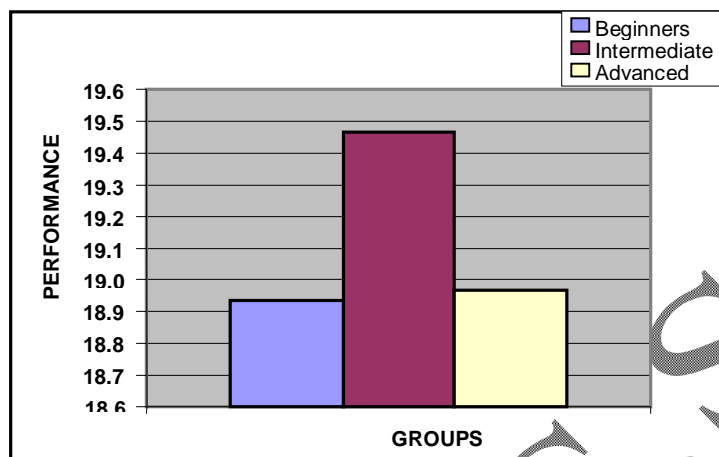
Source of Variance	Df	SS	MSS	F -ratio
Between Groups (B)	2	5.36	2.678	0.843
Within Groups (W)	87	276.30	3.176	

$N=90, F_{.05}(2, 87) = 3.11$

As evident from Table 5, that variability does not exist among the netball players of different groups with respect to resting respiratory rate. Since the value of F-ratio was not found to be significant at .05 level. Results are presented in figure - 5.

Fig. V
Comparison of the Means of Different Groups of Netball

Players in Relation to Resting Respiratory Rate



Discussion of Findings:

In case of all the selected physiological variables namely resting pulse rate such studies which stating the results of the resting pulse rate on the netball players was conducted by Lin ZP, Chen YH, Fan C, Wu HJ, Lan LW, Lin JG. This study investigated the effects of auricular acupuncture on athletes' recovery abilities after exercise. Subjects were selected from twenty-four male elite university netball players, randomly divided into two groups: auricular acupuncture group (AAG), and normal control group (NCG), each group containing twelve subjects. Auricular acupuncture was experimented to each AAG athlete while no auricular acupuncture was conducted to each NCG athlete. Each subject in both groups performed a ride on the stationary bike until exhausted. The data of heart rate (HR(max)), oxygen consumption (VO₂ max), and blood lactic acid were measured at four points of time: during the rest period after warm-ups and at the 5th, 30th and 60th minutes post-exercise, respectively. One-way ANOVA and repeated Scheffé methods were used to test the differences of the data between these two groups. The results showed that both HR(max) and blood lactic acid in AAG were significantly lower than those in NCG at the 30th and 60th minutes post-exercise. This suggests that auricular acupuncture can enhance athletes' recovery abilities after aggressive exercise. (et. al.2011), resting blood pressure (systolic and diastolic), such studies which stating the results of the blood pressure on the netball players was conducted by Otsuka Y, Shima N, Moritani T, Okuda K, Yabe K. To examine the orthostatic influence on heart rate and blood pressure variability in persons with tetraplegia playing wheelchair netball, ten trained persons with tetraplegia, ten untrained persons with tetraplegia, and ten able-bodied participated in this study. Spectrum analysis of the ECG R-R interval and blood-pressure on a beat-by-beat basis during head-up tilt 60 degrees sitting were performed. The ratio of the high frequency to total frequency (HF/TF) in the R-R interval decreased from supine (0.5 +/- 0.2) to sitting (0.3 +/- 0.2),

and the low frequency (LF) power in systolic blood pressure increased from 4.7 +/- 9.1 to 15.0 +/- 13.1 mmHg(2) only in the untrained persons with tetraplegia ($P < 0.01$). The decrease in the HF/TF ratio in the untrained persons with tetraplegia indicates attenuated parasympathetic activity to the orthostatic challenge and the similar increase in LF power indicate that parasympathetic activity was reduced and sympathetic activity increased only in these persons. These results suggest that training enhances cardiovascular stability in tetraplegic subjects. (et. al.2011) vital capacity such studies which stating the results of the vital capacity on the netball players was conducted by Goosey-Tolfrey V, Foden E, Perret C, Degens H. and it was found out that there is considerable evidence that respiratory muscle training improves pulmonary function, quality of life and exercise performance in healthy athletic populations. The benefits for wheelchair athletes are less well understood.

Conclusions:

Variability does not exist among the netball players of different groups with respect to their Selected Physiological Variables i.e.

- Resting Pulse Rate would have been same because at higher levels of participation every individual tends to possess equal amount of fitness level.
- Resting Blood Pressure would have been same because at higher levels of participation every individual tends to possess equal amount body functions only varying in their skill level hence the difference was not found.
- Vital Capacity would have been same because at higher levels of participation every individual tends to possess equal amount of fitness level.
- Resting Respiratory Rate at higher levels of participation every individual tends to possess equal amount body functions only varying in their skill level hence the difference was not found.

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COMPARATIVE STUDY OF SELF CONCEPT BETWEEN MALE AND FEMALE NATIONAL LEVEL PLAYERS

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Abstract:

The purpose of the present study was to compare the self concept between male and female national level players. This was a survey study under Descriptive research. For the present study, 120 male subjects were selected purposively from the nationals Games, in which 60 male national players and 60 were Female national players. All subjects were selected with the help of purposive sampling technique. For the collection of data the researcher administered the Dr. Saraswat, self concept questionnaire. This inventory was constructed and standardized by Dr. Raj Kumar Saraswat. The self-concept dimensions measured by this inventory are: Physical, Social, Temperamental, Educational, Moral and Intellectual. Self concept of Male national players and Female national players was compared by using t-test and the result was analyzed and interpretations were drawn. It was observed from the finding that the self Concept of Male national players and Female national players, that significant differences were found between Male national players and Female national players in all Dimension of Self Concept i.e physical, Social, Temperamental, Educational, Moral and Intellectual. The mean scores of Self Concept Dimensions like physical, Social, Temperamental and Moral shows that Male national players have high degree of self concept than Female national players. While the mean scores of Self Concept Dimension like educational and intellectual shows that and Female national players have high degree of Self concept than Male national players. Finally researcher concluded that the self concept of Male national players and Female national players is not similar.

Keywords: Self Concept, Male National Players & Female National Players.

Introduction:

Self concept has been defined by several authors. William James(1890) holds it to be all that a person is tempted to call by the name *me* or mine. Murphy (1947) defines it as the individual as known to the individual. According to Symonds (1951), it is the way or manner in which the individual reacts to himself. He spells out four aspects of self: i. how a person perceives himself; ii. what he thinks of himself; iii. how he values himself; and iv. how he attempts through various actions to enhance or defend himself. Sherif & Cantril (1947) use the term "ego" and define it as the constellation of attitudes of the type

"what I think of myself, what I value, what is mine, and what I identify with." According to them, these attitudes, when activated, energies, direct and control the person's behavior.

As self concept seems to play a significant role in the growth and development of a person, a detailed knowledge about its nature and its relation to other important factors of personality will provide an objective and encouraging basis for the educators and counselors to work on. Torrance (1954) vouches for the practical uses of knowledge of the self concept in counseling and guidance. **Salokun SO. (1990)** Nigerian high school athletes (112 high and 90 low in performance) and 108 nonathletes were administered the Tennessee Self-concept Scale. Athletes scored significantly higher on all self-concept subscales except behavior, moral-ethical and family. Better athletes scored significantly higher on all aspects of self-concept: social, moral-ethical, family and behavior, as is consistent with findings from the USA and other countries. **Jessica L. Miller and Gary D. Levy(1996)**, Gender role conflict, masculinity, femininity, physical appearance self-concept, athletic competence self-concept, body image self-concept, and athletic participation by parents among female athletes and nonathletes were examined in 76 female athletes and 69 female nonathletes (N= 145). Similar to previous research, results indicated no significant differences in the gender role conflict of female athletes and nonathletes. Results also indicated that, as predicted, female athletes exhibited significantly more positive athletic competence self-concept, body image self-concept, and athletic participation by parents than female nonathletes. Both participants' body image self-concept and parental sport participation were significantly and inversely related to their amount of gender role conflict.

Methodology:

This was a survey study under Descriptive research. For the present study, 120 male subjects were selected purposively from the nationals Games, in which 60 male national players and 60 were Female national players. All subjects were selected with the help of purposive sampling technique. For the collection of data the researcher administered the Dr. Saraswat, self concept questionnaire. This inventory was constructed and standardized by Dr. Raj Kumar Saraswat. The self-concept dimensions

measured by this inventory are: Physical, Social, Temperamental, Educational, Moral and Intellectual. Self concept of Male national players and Female national players was compared by using t-test and the results were analyzed and interpretations were drawn. The level of significance was kept at 0.05 to test the hypothesis.

Results:

Table-I
Descriptive statistics of Male and Female National Players on Self Concept
Dimensions

Self Concept Dimensions	Group	N	Mean	Std. Deviation	Std. Error
Physical	Male Players	60	34.1000	2.24515	0.28985
	Female Players	60	28.5500	2.77046	0.35766
Social	Male Players	60	28.6167	2.65593	0.34288
	Female Players	60	26.9000	2.74140	0.35391
Temperamental	Male Players	60	32.5167	1.77068	0.22859
	Female Players	60	28.8500	1.97291	0.25470
Educational	Male Players	60	28.8167	2.25863	0.29159
	Female Players	60	31.3500	3.28750	0.42441
Moral	Male Players	60	31.7167	1.69837	0.21926
	Female Players	60	30.6500	2.04877	0.26450
Intellectual	Male Players	60	23.7667	2.08600	0.26930
	Female Players	60	24.9500	2.65805	0.34315

In the above table no 4.1, there were 60 Male National Players having mean of 34.1000, 28.6167, 32.5167, 28.8167, 31.7167, 23.7667 and with standard deviation of 2.24515, 2.65593, 1.77068, 2.25863, 1.69837, 2.08600 and standard error mean is 0.28985, 0.34288, 0.22859, 0.29159, 0.21926, 0.21926, 0.26930 on Self Concept physical , Social, Temperamental, Educational, Moral and Intellectual. Similarly there were of 60 other Female National Players having mean of 28.5500, 26.9000, 28.8500, 31.3500, 30.6500, 24.9500 with standard deviation of 2.77046, 2.74140, 1.97291, 3.28750, 2.04877, 2.65805 and standard error mean is 0.35766, 0.35391, 0.25470, 0.42441, 0.26450, 0.34315 on the Self Concept physical , Social, Temperamental, Educational, Moral and Intellectual respectively. (In the table N means the number of subjects).

Table-II
Independent sample't' test of self concept dimensions

SELF CONCEPT DIMENSIONS	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Physical	12.056	118	.000	5.55000	.46036
Social	3.484	118	.001	1.71667	.49277
Temperamental	10.714	118	.000	3.66667	.34224
Educational	-4.920	118	.000	-2.53333	.51493
Moral	3.105	118	.002	1.06667	.34356
Intellectual	-2.713	118	.008	-1.18333	.43621

The table no II, showing the independent t-test was applied to means to find the significance of difference between the two groups i.e: Male National Players and Female National Players. From table Significant differences were found between Male National
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Players and Female National Players in all Dimension of Self Concept physical, Social, Temperamental, Educational, Moral and Intellectual.

Discussion:

It was observed from the finding that the self Concept of Male national players and Female national players, that significant differences were found between Male national players and Female national players in all Dimension of Self Concept i.e physical, Social, Temperamental, Educational, Moral and Intellectual. The mean scores of Self Concept Dimensions like physical, Social, Temperamental and Moral shows that Male national players have high degree of self concept than Female national Players.

These findings are supported by the researches Salokun SO. (1990) Nigerian high school athletes (112 high and 90 low in performance) and 108 nonathletes were administered the Tennessee Self-concept Scale. Athletes scored significantly higher on all self-concept subscales except behavior, moral-ethical and family. Better athletes scored significantly higher on all aspects of self-concept: social, moral-ethical, family and behavior, as is consistent with findings from the USA and other countries.

Conclusion:

In the present study we found that there is significant difference between Male and Female National Players in all Self Concept Dimension. In the Present Study, we observed that Male National Players got good results in Self Concept Dimensions physical, Social, Temperamental and Moral as compare Female National Players. While Female National Players got good results in Self Concept Dimension educational and intellectual than Male National Players. Finally researcher concluded that the self concept of Male and Female National Players is not similar.

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**EFFECT OF YOGA TRAINING ON THE SELECTED PSYCHOMOTOR
VARIABLES OF POST GRADUATE STUDENTS STUDYING IN
AMRAVATI UNIVERSITY OF MAHARASHTRA STATE**

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Abstract:

The main Purpose of The Study was to find out the Effect of Yoga Training on the Selected Psychomotor Variables on Post Graduate Students of Sant Gadge Baba Amravati University, Amravati. The Sources of data were collected from the Boys Hostel Sant Gadge Baba Amravati University, Amravati. The Researcher Had Selected 40 Male Subjects For This Study. The Subjects Were Selected By Using Simple Random Sampling Method. All the Subjects Were Divided Into Two Groups (Experimental and Control) Consisting Of 20 Subjects Each. In This Study the Following Equipments which were used for data collection (1) Grip Dynamometer was used to measure the Grip Strength (2) Eye-hand Co-ordination Test was used to measure the Eye-hand Co-ordination and (3) Stork Stand test was used to measure the Balance. The 't' test was used to Analyzed the Data. Conclusion: There Was Significant Effect of Yoga Training on the Grip- Strength, Eye-hand Co-ordination and Balance.

Keywords: Yogic Training & Psychomotor Variables.

Introduction:

Yoga is one of the ancient techniques which help in building Physical and Mental health of a person. It is a great science has evolved in India centuries ago. This science combines the breathing techniques so as to produce the best results for human anatomy. During ancient times yoga was practiced to the highest levels of spiritualities. But in recent times yoga is losing its importance due to quick results expected by younger generation. But premier institutes like 'Kaivalayadlana' at Lonavala are working to make yoga popular again. Efforts are on to revive yoga throughout the world. Yoga has strong following in developed countries such as U.S.A., Germany and others. Yoga is universally benefiting all the peoples of all ages. The study is fascinating to those with the philosophical mind as is defined as the silencing of the mind's activities which leads to complete realization of the intrinsic nature of the Supreme Being. It is a practical holistic philosophy designed to bring about profound state of well being is an integral subject.

Purpose of the study:

The Main Purpose of the Study was to find out the Effect of Yoga Training on the selected psychomotor variables on Post Graduate Students of Sant Gadge Baba Amravati University, Amravati of Maharashtra State.

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Hypothesis:

It was hypothesized that, “There will be significant effect of Yoga training on psychomotor variables”.

Methodology:

The Sources of data were collected from the Boys Hostel Sant Gadge Baba Amravati University, Amravati. The Researcher Had Selected 40 Male Subjects For This Study. The Subjects Were Selected By Using Simple Random Sampling Method. The subjects were divided in two equal groups: Group A and Group B, Group A was Experimental, (N=20) and B was Control (N=20). In This Study the Following Equipments which were used for data collection (1) Grip Dynamometer was used to Measure the Grip- Strength (2) Eye-hand Co-ordination Test was used to measure the Eye-hand Coordination and (3) Stork Stand Test was used to measure the Balance.

Collection of Data:

The necessary data was collected by administrating the tests for measuring the selected variables. Before collecting the data, the subjects were given a chance to practice the prescribed tests so that they should become familiar with the tests and know exactly what is to be done.

Experimental Procedure of training design:

Sr. No.	Name of Group	Type of group	Type of Training
1	A	Experimental	Yoga Training
2	B	Control	No Training

Weekly Training Schedule for Experimental Group

Day	Duration (Min.)	Nature of Task	Intensity
Monday	5	Warm-up Exercise	
	15	Suryanamskara	Medium
	5	Savasana	
Tuesday	5	Warm-up Exercise	
	15	Asanas	Medium
	5	Savasana	
Wednesday	5	Warm-up Exercise	
	15	Pranayama	Medium
	5	Savasana	
Thursday	5	Warm-up Exercise	

	15	Suryanamskara	Medium
	5	Savasana	
Friday	5	Warm-up Exercise	
	15	Asanas	Medium
	5	Savasana	
Saturday	5	Warm-up Exercise	
	15	Pranayama	Medium
	5	Savaasana	
Sunday	Rest		

Data Analysis:

The statistical analysis of the data gathered for the effect of Yoga training on psychomotor variables. The data collected qualitatively on two different test of Grip Strength, Eye-hand Co-ordination and Balance of control group –A (N=20), and experimental groups (N=20). The data were analyzed and interpreted by using ‘t’ test and the level of significance at 0.05 was adequate for testing the hypothesis.

Table-I

**Mean Difference between Pre and Post Test
Of Control Group for Grip Strength, Eye-Hand Co-ordination, and Balance**

Variable	Grip Strength		Eye-Hand Co-ordination		Balance	
	Pre	Post	Pre	Post	Pre	Post
Mean	32.40	32.450	10.850	11.700	19.300	20.150
SD	4.031	4.571	1.872	1.625	7.349	6.869
SE	1.363		0.554		2.249	
MD	0.050		0.850		0.850	
Ot	0.037		1.533		0.378	

***Significant at 0.05 level. Tabulated ‘t’ (38) =2.021**

Table-1 reveals that there is no significant difference between Psychomotor variables means of pre and post test of control group, because Grip Strength, Eye-Hand Co-ordination, and Balance mean of pre test is 32.40, 10.850, and 19.300 is slightly less than mean of post test is 32.450, 11.700, and 20.150 and there mean difference is 0.050, 0.850, and 0.850. To check the significant difference between pre and post test of control group the data was again analyzed by applying ‘t’ test. Before applying ‘t’ test, standard deviation was calculated between pre test where S.D. = 4.031, 1.872, and 7.349 and Post test where S.D. = 4.571, 1.625, and 6.869 and their Combine standard error = 1.363, 0.554, and 2.249. There was no significant difference between Psychomotor variables pre

and post test of control group because value of calculated 't' = 0.037, 1.533, and 0.378 which is less than tabulated 't' = 2.02 at 0.05 level of confidence, which shows no improvement was found in control group because no training was given to the subjects of control group.

Graph-I
Graphical Representation of Mean Difference between Pre and Post Test of Control Group for GP, EHC and Balance

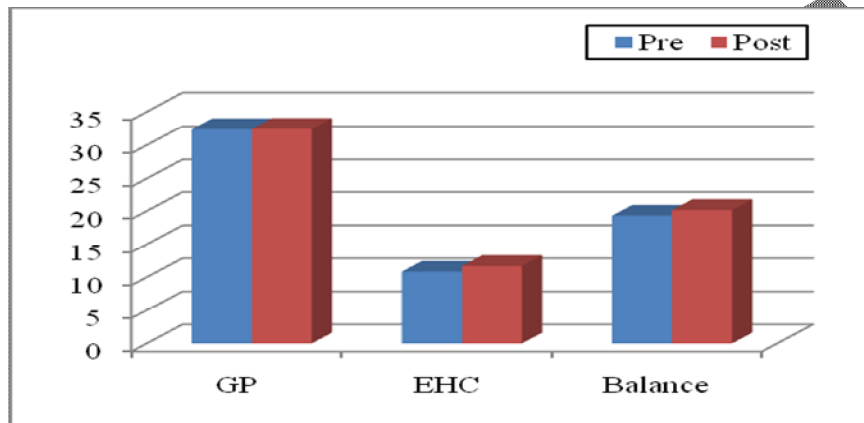


Table-II

Mean Difference between Pre and Post Test of Experimental Group for Grip Strength, Eye-Hand Co-ordination, and Balance

Variable	Grip strength		Eye-hand Co-ordination		Balance	
	Pre	Post	Pre	Post	Pre	Post
Mean	36.850	38.90	9.05	13.00	16.35	24.35
SD	6.80	6.42	2.25	3.00	5.81	7.24
SE	2.092		0.841		2.077	
MD	2.050		3.950		8.000	
Ot	0.980		4.695		3.852	

***Significant at 0.05 level. Tabulated 't' (38) = 2.021**

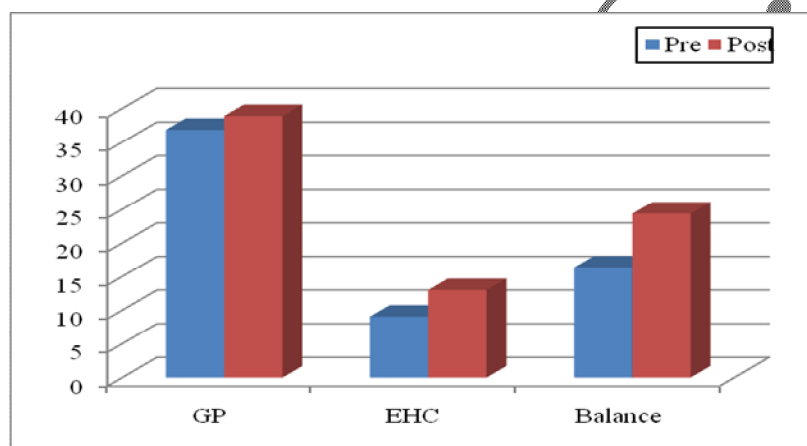
Table-2 reveals that there is least significant difference between physiological variables means of pre and post test of experimental group, because Grip Strength, Eye-Hand Co-ordination, and Balance mean of pre test is 36.850, 9.05 and 16.35 and is greater than mean of post test is 38.90, 13.00 and 24.35. There mean difference is 2.050, 3.950 and 8.000. To check the significant difference between pre and post test of experimental group the data was again analyzed by applying 't' test. Before applying 't' test, standard deviation was calculated between pre-test where S.D. = 6.80, 2.25 and 5.81

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and Post test where S.D. = 6.42, 3.00 and 7.24 and their Combine standard error = 2.092, 0.841, and 2.077. There was no significant difference between Grip Strength pre and post test of experimental group because value of calculated 't' = 0.980 which is less than tabulated 't' = 2.02 at 0.05 level of confidence. But there was significant difference between Eye-Hand Co-ordination, and Balance pre and post test of experimental group because value of calculated 't' = 4.695 and 3.852 which is greater than tabulated 't' = 2.02 at 0.05 level of confidence, which shows Yoga training have improved the Eye-Hand Co-ordination, and Balance of experimental group.

Graph-II

Graphical Representation of Mean Difference between Pre and Post Test Of Experimental Group for GP, EHC and Balance



Testing of Hypothesis:

It was hypothesized that there will be significant effect of Yoga Training on selected Psychomotor variables.

Conclusion:

On the basis of the result drawn with the mentioned methodology the following conclusion were sougheed out.

- There was no significant Effect on the Grip Strength.
- There was significant Effect on the Eye-hand Co-ordination and Balance

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**EFFECT OF YOGIC PRACTICES ON THE SELECTED PHYSIOLOGICAL
VARIABLES OF PHYSICAL EDUCATION STUDENTS STUDYING IN
JIND DISTRICT OF HARYANA**

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Abstract:

The main Purpose of the Study was to find out the Effect of Yogic Practices on the selected Physiological Variables. The study were conducted C.P.Ed. Students of Green Valley College of Education Shahpur, Jind District of Haryana. The Sources of data were collected from the C.P.Ed. Students of Green Valley College of Education Shahpur, Jind. The Researcher Had Selected 40 Male Subjects For This Study. The subjects for the study were randomly selected for the purpose of the study. All the Subjects were divided into Two Groups (Experimental and Control) Consisting of 20 Subjects Each. In This Study the Following Equipments which were used for Data Collection (1) Sphygmomanometer and Stethoscope was used to Measure the Blood Pressure (2) Manually through Radial Artery was used to measure the Pulse Rate and (3) Harvard Step Test was used to measure the Cardio vascular Endurance. The 't' test was used to Analyzed the Data. Conclusion: There was Significant Effect of Yogic Practices on the Blood Pressure, Pulse Rate and Cardio vascular Endurance.

Keywords: Yogic Training & Physiological Variables.

Introduction:

Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter in to the supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Man has made tremendous progress in almost every walk of the life. Modern scientists and researchers have absolutely changed the life style. However, pollution of air, water, body and mind is also the result of science. Longing for material wealth has hardened the hearts of human beings. Human values are declining. Stress and Strain are the causes of physical as well as mental distraction. Yoga has the surest remedies for man's physical as

well as psychological ailments. It makes the organs of the body active in their functioning has good effect on internal functioning of the human body. Yoga is not a religion. It is a method by which one obtains control of one's latent powers. It is the means to reach complete self realization. Yogis achieve this by turning their thoughts inward, away from the objective world. By yoga life is so organized and so satisfying that in its twilight a person will be content to let go without regrets and without a sense of living too much undone. Yoga is a re-education of one's mental processes, along with the physical.

Objective of the study:

The Main Purpose of the Study was to find out the Effect of yogic practices on the selected physiological variables.

Hypothesis:

It was hypothesized that, There will be significant effect of yogic practices on Physiological variables.

Methodology:

The Sources of data were collected from the C.P.Ed. Students of Green Valley College of Education Shahpur, Jind. The Researcher had Selected 40 Male Subjects for this Study. The subjects for the study were randomly selected for the purpose of the study. The subjects were divided in two equal groups: Group A and Group B, Group A was Experimental, (N=20) and Group B was Control (N=20). In This Study the Following Equipments which were used for Data Collection (1) Sphygmomanometer and stethoscope was used to Measure the Blood Pressure (2) Manually through Radial artery was used to measure the Pulse Rate and (3) Harvard Step Test was used to measure the Cardio vascular Endurance.

Collection of Data:

The necessary data was collected by administrating the tests for measuring the selected variables. Before collecting the data, the subjects were given a chance to practice the prescribed tests so that they should become familiar with the tests and know exactly what is to be done.

Experimental Procedure of Training Design:

Sr. No.	Name of Group	Type of group	Type of Training
1	A	Experimental	Yogic Practices
2	B	Control	No Training

Weekly Yogic Practices Programme for Experimental Group:

The subjects from Group A were subjected to a 12-week yogic practices programme. This lasted 12-weeks and consisted of daily sessions. Each yoga session consisted of 5 minutes Warm-up exercises followed by savasana-5 minutes, Suryanamaskara-10 minutes, Asanas-20 minutes, Pranayama-10 minutes, Meditation -10 minutes, Savasana-5 to 10 minutes. The Six days in a week was observed in training and Sunday was considered as a rest days. The pranayamas consisted of alternate nostril breathing while maintaining the vajrasna and Sukhasana position. Nostril regulated breathing was practiced throughout the warm-up and asana position of the exercise programmed. The warm-up program focused on slow, dynamic muscular movements, which consisted of dynamic lunges, shoulder and arm circles, neck rolls, standing forward bend and two to three cycles of the suryanamaskar. The asanas introduced in this study included the following poses:

1. **In standing posture:**
 - Vrikshasana
 - Trikonasana
 - Suryanamaskara
2. **In sitting posture:**
 - Vajrasna
 - Padmasana
 - Sukhasana
3. **In prone posture:**
 - Makarasana
 - Bhujangasana
 - Dhanurasana
4. **In supine position:**
 - Halasana
 - Chakrasana
 - Savasana

Data Analysis:

The statistical analysis of the data gathered for the effect of Yogic Practices on Physiological variables. The data collected qualitatively on different test of Blood Pressure, Pulse Rate and Cardio-vascular Endurance of control group-A (N=20), and

experimental groups–B (N=20). The data were analyzed and interpreted by using ‘t’ test and the level of significance at 0.05 was adequate for testing the hypothesis.

Table-1
Systolic Pressure, Diastolic Pressure, Pulse Rate and Cardiovascular
Endurance Pre and Post Test of Control Group

Variable	Systolic Pressure		Diastolic Pressure		Pulse Rate		Cardiovascular Endurance	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	117.000	117.550	85.850	84.600	70.900	70.450	68.673	71.740
SD	3.825	2.946	3.717	4.346	2.024	2.012	5.594	5.300
SE	1.080		1.279		0.638		1.723	
MD	0.550		1.250		0.450		3.066	
Ot	0.509		0.978		0.705		1.780	

***Significant at 0.05 level. Tabulated ‘t’ (38) = 2.021**

Table-1 reveals that there is no significant difference between physiological variables means of pre and post test of control group, because Systolic Pressure, Diastolic Pressure, Pulse Rate and Cardiovascular Endurance mean of pre test is 117.000, 85.850, 70.900 and 68.673 is greater than and slightly less than mean of post test is 117.550, 84.600, 70.450 and 71.740 and there mean difference is 0.550, 1.250, 0.450, and 3.066. To check the significant difference between pre and post test of control group the data was again analyzed by applying ‘t’ test. Before applying ‘t’ test, standard deviation was calculated between pre-test where S.D. = 3.825, 3.717, 2.024 and 5.594 and Post test where S.D. = 2.946, 4.346, 2.012 and 5.300 and their Combine standard error = 1.080, 1.279, 0.638 and 1.723. There was no significant difference between physiological variables pre and post test of control group because value of calculated ‘t’ = 0.509, 0.978, 0.705 and 1.780 which is less than tabulated ‘t’ = 2.02 at 0.05 level of confidence, which shows no improvement was found in control group because no training was given to the subjects of control group.

Graph-1
Graphical Representation of Mean Difference between Pre and Post Test
Of Control Group for SP, DP, PR and CER

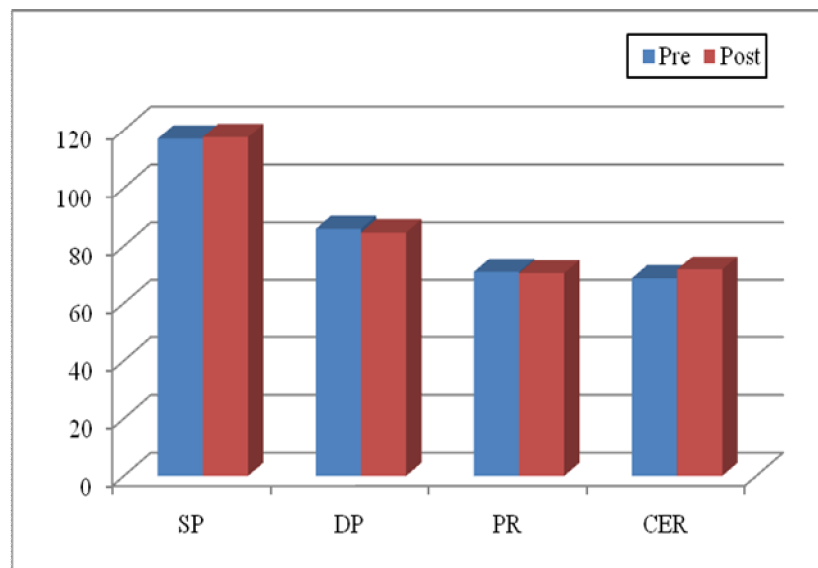


Table-II
Systolic Pressure, Diastolic Pressure, Pulse Rate and Cardiovascular
Endurance Pre and Post Test of Experimental Group

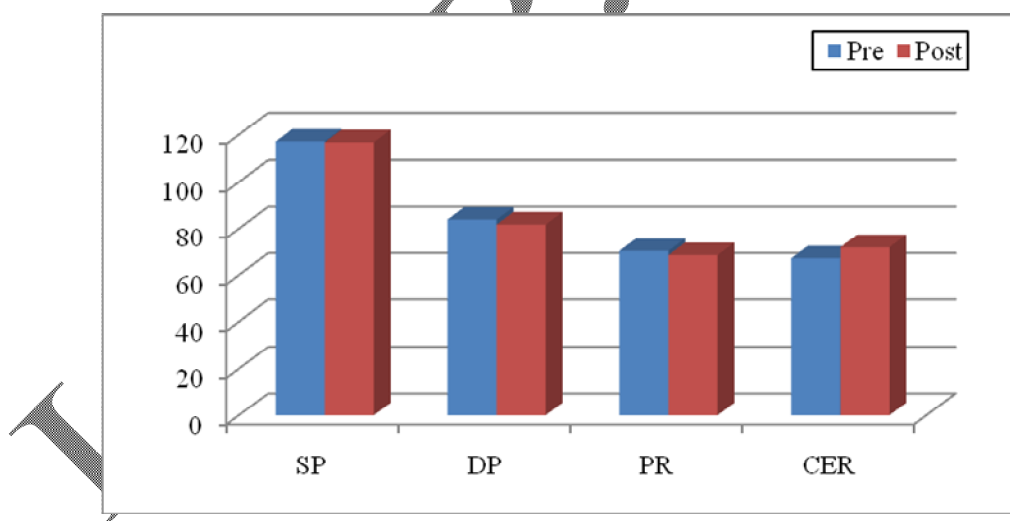
Variable	Systolic Pressure		Diastolic Pressure		Pulse Rate		Cardiovascular Endurance	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	117.10	116.75	83.95	81.80	70.400	68.600	67.221	71.963
SD	2.693	2.918	3.471	2.567	1.847	1.984	5.660	4.307
SE	0.888		0.965		0.606		1.590	
MD	0.350		2.150		1.800		4.742	
Ot	0.394		2.227		2.970		2.982	

***Significant at 0.05 level. Tabulated 't' (38) = 2.021**

Table-II reveals that there is least significant difference between physiological variables means of pre and post test of experimental group, because Systolic Pressure, Diastolic Pressure and Pulse Rate mean of pre test is 117.100, 83.950 and 70.400 and is greater than mean of post test is 116.750, 81.800 and 68.600, but Cardiovascular Endurance mean of pre test is 67.221 and is slightly less than mean of

post test is 71.963 and there mean difference is 0.350, 2.150, 1.800, and 4.742. To check the significant difference between pre and post test of experimental group the data was again analyzed by applying 't' test. Before applying 't' test, standard deviation was calculated between pre-test where S.D. = 2.693, 3.471, 1.847 and 5.660 and Post test where S.D. = 2.918, 2.567, 1.984 and 4.307 and their Combine standard error = 0.888, 0.965, 0.606 and 1.590. There was no significant difference between Systolic Pressure pre and post test of experimental group because value of calculated 't' = 0.394 which is less than tabulated 't' = 2.02 at 0.05 level of confidence. But there was significant difference between Diastolic Pressure, Pulse Rate and Cardiovascular Endurance pre and post test of experimental group because value of calculated 't' = 2.227, 2.970 and 2.982 which is greater than tabulated 't' = 2.02 at 0.05 level of confidence, which shows Yoga training have improved the Diastolic Pressure, Pulse Rate and Cardiovascular Endurance of experimental group.

Graph-II
Graphical Representation of Mean Difference between Pre and Post Test of Experimental Group for SP, DP, PR and CER



Testing of Hypothesis:

In the earlier time the researcher was hypothesized that there will be a significant effect of Yogic Practices on Physiological Variable. But the effect of training does not show the significant effect on the Systolic Pressure and shows significant effect on the Diastolic Pressure, Pulse Rate and Cardiovascular Endurance. At last it was found that the hypothesis was accepted at the level of 0.05 level of confidence.

Conclusion:

On the basis of the result drawn with the mentioned methodology the following conclusion were sougud out.

- There was no significant Effect on the Systolic Pressure.
- There was significant Effect on the Diastolic Pressure, Pulse Rate and Cardiovascular Endurance.

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THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND PERFORMANCE IN KABADDI MALE PLAYERS

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Abstract:

The purpose of the present study was to find out the Relationship between Emotional Intelligence and Performance in Kabaddi male Players. The objective of the present study was to find out the relationship between sub-variables of emotional intelligence and performance in Kabaddi male players. The researcher hypothesized that there will be a positive relationship between emotional intelligence and performance in Kabaddi players. The present source of the data was 60 male intercollegiate Kabaddi players of Amravati University. Age of players was between 17 to 24 years. The researcher used the standardized questionnaire of emotional intelligence and performance of Lalit Sharma & Sandeep Tiwari and Lane & Chappell 2001. The Questionnaire got filled in the subject in researcher's presence from the players. After collection the data was statistically analyzed. The results of the study revealed that there was significant relationship obtained between Total Emotional Intelligence and Performance Evaluation Test for Kabaddi players and significant relationship could be seen when the sub-variables of emotional intelligence individually were related with performance evaluation.

Keywords: Emotional Intelligence, Performance & Kabaddi Male Players.

Introduction:

Today sports has becomes inseparable phenomenon of our social life. It has made its own place at the apex of human civilization, because of its trail, competitive event and even improving nature. The acquisition of new knowledge for betterment of performance of human organism in relation of physical, motor and physiological qualities is in process of saturation. To strive for still better is a million dollar question for the experts of sports. In the process they also explore the field of psychology enlist certain psychological parameter which do.

Modern sports training has totally become performance oriented and the rapid advancement in sports sciences has further helped the trainer and coaches to achieve their goal in more scientific way. Top performance of an athlete is dependent on various factors. The very basic requisite to attain high level of sports performance is an individual, must possess some innate and acquired talent for a particular sport, after identification of such talent they are to be significantly trained over a long period to attain maximum performance capacity in each component of performance.

The origin of Kabaddi can be traced to the pre-historic times. In India, Kabaddi was primarily devised as a way to develop the physical strength and speed in young men. During its inception, Kabaddi was played to boost the self-defense skills and to develop quick responsiveness to attacks. It also sharpened the reflexes of counter attacks of the individuals, who mostly played in groups or teams. Kabaddi also finds place in Hindu mythology.

Emotional Intelligence:

Emotions are the powerful organizers of thought and action, so emotion play an important role in success of human life. It has been realized that in addition to intelligence emotions are equally or even more responsible for performance in any field. Experiences in each field indicate that for successful life emotion is a key factor for every individual.

Salovey and Meyer (1990) coined the term "emotional intelligence" for the first time. Emotional Intelligence enables one to gather information about the individual himself and also the surrounding atmosphere. According To Golemann, (1998) Emotional Intelligence is the capacity to recognized our own feelings and those of others for motivating ourselves and managing emotions well ourselves and in our relationships. Emotional Intelligence is having two types of competencies i.e. personal and social competencies. These competencies include five major factors namely self awareness, self control, motivation, empathy and social skills. Emotional Intelligence is more important than I.Q. I.Q contributes about 20% to the factors that determine success in life. The remaining 80% is contributed by emotional Intelligence. Research studies have shown that I.Q is inherent but emotional intelligence can be developed and nurtured, even in adulthood and prove beneficial to one's health, relationship and performance.

Objectives of the Study:

- To find out the relationship between emotional intelligence and performance in Kabaddi male players.
- To find out the relationship between sub-variables of emotional intelligence and performance in Kabaddi male players

Selection of Subject:

The present investigation was conducted on a total of 60 male Kabaddi players from Amravati University those who had minimum participation at intercollegiate level tournament.

Selection of Variables:

After gleaning though the literature and discussion with experts and advisor the variable of emotional intelligence was selected for the purpose of the present study along with the evaluation of performance in sports.

Criterion Measure:

For the purpose of collecting data following questionnaire were used:-

- Emotional Intelligence in Sports (EIQS 2006) developed by Lalit Sharma & Sandeep Tiwari was used to assess Emotional Intelligence.
- Performance Evaluation Test developed by Lane & Chappell 2001.

Collection of Data:

The collection of the data was done through randomly selected subjects.

Analysis and Interpretation of Data:

Statistical analyses of the data obtained on the Emotional Intelligence Questionnaire and Sports Performance Evaluation Test from male Kabaddi players were presented in this chapter.

The data was collected by administering the questionnaire and for finding out the relationship between emotional intelligence, its sub-variables with sports performance evaluation test the Person product moment correlation was established level of significance was chosen at 0.05.

Table No-1**Relationship of Emotional Intelligence and its Sub-Variables to Sports Performance test among Kabaddi Players**

Variable	R
Self confidence and sports performance	0.379**
Self awareness and sports performance	0.190
Self control and sports performance	-0.066
Motivation & sports performance	0.344**
Empathy and sports performance	0.173
Social Competence and sports performance	0.279**
Total Emotional Intelligence and sports performance	0.283*

* Significant at 0.01 level, ** Significant at 0.05 $r_{.01}^{(58)} = 0.325$ and $r_{.05}^{(58)} = 0.250$

Table 1 clearly indicated that all through there were significant relationship of sub-variables of Emotional Intelligence (Self Confidence, Motivation, Social Competence) and total Emotional Intelligence with Sports Performance and their significant values are 0.379**, 0.344**, 0.279* and 0.283* at significant tabulated values of co-relation (r) at 58 degrees of freedom at 0.01 level* = 0.325 and at 0.05 level** = 0.250.

Discussion of Finding:

Performance in the sports is largely depending upon mental preparation and psychological makeup of the sports person. Thus, while preparing for competitions physical skills along with the mental skill should also be concentrated upon. Emotional intelligence takes in to consideration the terms emotions and intelligence. That is, the meaning of emotional intelligence has something specific to do with the intelligence intersection of the emotions and thoughts. Emotional intelligence represents ability to validity reason with emotions and to use emotions to enhance thoughts. The result of the study indicate that all though there were significant value obtained with the respective 3 sub-variables of emotional intelligence (Self Confidence, Motivation and Social Competence) to performance in sports but there were no significant value obtained with the 3 sub-variables of emotional intelligence (Self Awareness, Self Control and Empathy) to performance in sports but when scores was taken as a whole to find out the relationship to sports performance evaluation test a significant value of 0.283 was obtained as against the tabulated value of correlation (r) at 0.01 level and 58 degrees of freedom which was 0.325.

The probable reason could be that the subject selected for the purpose of study were very high level performer in Kabaddi and there might have been significant value obtained with 3 sub-variable of the emotional intelligence (Self Confidence, Motivation and Social Competence) and there were no significant value obtained with 3 sub variables (Self Awareness, Self Control and Empathy) but however, the overall significant difference clearly stated that there does exists a strong co-relation between emotional intelligence and performance evaluation.

Conclusions:

Recognizing the limitations of the present study following conclusions were drawn:-

- There was significant relationship obtained between Total Emotional Intelligence and Performance Evaluation Test for Kabaddi players.
- Significant relationship could be seen when the sub-variables of emotional intelligence individually were related with performance evaluation.

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ROLE OF YOGA IN PHYSICAL FITNESS

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Abstract:

Yoga is an ancient Indian body of knowledge that dates back more than 500 years ago. The word "Yoga" came from the Sanskrit word "yuj" which means "to unite or integrate." Yoga then is about the union of a person's own consciousness and the universal consciousness.

Keywords: Yoga & Physical Fitness.

Importance of Yoga:

Yoga is a traditional method of meditation developed by the saints of ancient India. They practiced yoga as an effective method of controlling their mind and bodily activities. Yoga in Daily Life is a system of practice consisting of eight levels of development in the areas of physical, mental, social and spiritual health. When the body is physically healthy, the mind is clear, focused and stress is under control. This gives the space to connect with loved ones and maintain socially healthy relationships. When you are healthy you are in touch with your inner Self, with others and your surroundings on a much deeper level, which adds to your spiritual health. Yoga increases the flexibility of the spine, improves body's physical condition and heightened awareness to the importance of relaxation. It has been emphasized that each exercise be practiced slowly, coordinating movement with the breath, pausing motionless in each position and always with full concentration. Yoga teaches you to focus on breathing while you hold the poses. This attention to breath is calming it dissolves stress and anxiety. Yoga can help cure insomnia, as regular yoga practice leads to better and deeper sleep. Yoga can help fight fatigue and maintain your energy throughout the day. Yoga is an effective treatment for a variety of autoimmune diseases because it can reduce the symptoms these diseases often cause, such as stiffness, malaise, fatigue, and weakness. Even children can benefit from yoga. Those with attention deficit disorder and hyperactivity can learn to relax and get control by using yoga breathing and yoga asanas. Yoga has been used to help heal victims of torture or other trauma. Because yoga is a form of meditation, it results in a sense of inner peace and purpose, which has far-reaching health benefits.

Benefits of Yoga:

The benefits of yoga are extensive. Not only does yoga affect the physical aspect of the body, it addresses the mind and spirit as well. Daily exercises are a great way to help relieve the stress of your day and can bring a sense of well-being to your life. Here are the top ten benefits of yoga.

1. Stress Relief

Yoga can help reduce the effects of stress on your body. One of the benefits of yoga is that it encourages relaxation and can lower the amount of cortisol in your body.

2. Pain Relief

Daily exercises of yoga can help ease the aches and pains of the body. Many people with very serious diseases have reported less pain after these daily exercises, such as asanas or meditation.

3. Better Breathing

You will learn to take deeper, slower breaths with daily exercises of yoga. It will help to increase your lung function and set off the body's relaxation response. This can be one of the most powerful benefits of yoga.

4. Flexibility

You will notice your level of flexibility will increase, which will help with your range of motion. Sometimes in the yoga daily exercises, people cannot even touch their toes. The benefits of yoga will include lengthening the muscles, tendons, and ligaments in your body to help you become more flexible.

5. Increased Strength

Yoga poses use all the muscles in your body and help you increase your strength level from head to toe. The benefits of yoga and daily exercises will help you strengthen your muscles close to the bones, which increase the support of your skeletal system as well.

6. Weight Management

You will see the benefits of yoga begin to affect your scale. Daily exercises are always recommended, but yoga helps reduce the level of cortisol in your body. This aids in weight loss and fat burning.

7. Improved Circulation

Yoga will help improve your body's circulation. In turn, with daily exercises, you will see the benefits of yoga with lowered blood pressure and pulse rates.

8. Cardiovascular Conditioning

Even the gentlest style of yoga will help to lower your resting heart rate and increase your overall endurance. This is one of the important benefits of yoga to help improve the amount of oxygen taken in during the daily exercises.

9. Focus on the Present

You can have greater coordination, memory skills, reaction times, and improved concentration skills by utilizing yoga for daily exercises. These benefits of yoga will extend far out of the yoga center.

10. Inner Peace

What more could you want. This is one of the primary reasons that people do daily exercises of yoga. This is one of the most important benefits of yoga

and is also one of them or easy ones to attain.

Conclusion:

The benefits of yoga are very far reaching indeed. There is no one other exercise avenue you can take that will address all of these issues in one simple session. For those of you that think yoga is too easy, I encourage you to try one class. You may find it is just what you are looking for.

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I.R.J.P.E.S.S.

ROLE OF YOGA IN STRESS MANAGEMENT

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Abstract:

Stress has become one of the biggest challenges of the world. In spite of millions of dollars being spent for development of management programme to deal with stress, we are no where towards solving even the pinch of the problem. If in early seventies stress used to be in the executive world only, today it has spread everywhere. Even small kids, small students and small children. Let us try to understand what exactly stress is all about. In simple terms stress can be defined as “non specific basic response pattern which prepares an individual for a demanding situation”. Whenever there is stressful situation here the individual’s response starts in the form of Arousal of Autonomic Nerves System whereby a Sympathetic Nerves System takes a lead. Basically the heart starts beating faster. One starts breathing quicker in order to take more oxygen to supply to the demanding parts. The blood supply to skeleton muscles increases so that the muscles are strong enough to handle the situation. The glucose level in the blood increases. Everything is ready to handle that stressful situation. Imagine, if this continues for a long duration, the body can not withdraw the stressful stimulus slowly to normal line, if this repeats again and again. That is what has been observed in the present day that we undergo stressful situations quite frequently say that we are not giving our body enough time for it to come back to its normal line, hence resulting in the phase of chronic stress. Yoga can offer a solution to this multidimensional challenge because yoga works at the body level, prana level, mind level, emotional level and the intellectual level. The highly developed, systematically developed Dhayna yoga, Raj Yoga work at all these levels to bring solutions to the challenge of stress.

Keywords: Yoga & Stress Management.

Introduction:

Stress is necessary for life. You need stress for creativity , learning and your very survival. Stress is only harmful when it becomes overwhelming and interrupts the healthy state of equilibrium that your nervous system needs to remain in balance.

Unfortunately, overwhelming stress has become an increasingly common characteristic of contemporary life when stress throws your nervous system out of balance, relaxation techniques can bring it back into a balanced state by producing the relaxation response, a state of deep calmness that is the polar opposite of the stress response. 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. The relaxation response puts the breaks on this heightened state of readiness and brings your body and mind back into a state of equilibrium.

Impact of Stress:

The stress related disorders evolve gradually through three recognizable stages & first, psychological changes such as anxiety, irritability, and insomnia, arise due to over stimulation of the sympathetic Nervous System. Second state, symptoms such as high blood pressure, elevated heart rate and increased intestinal motility surface. In the third state, a more profound physical or bio chemical imbalance.

Relaxation Techniques for Stress Relief

(a) **Breathing Meditation for Stress Relief.** With its focus on full, cleansing breaths, deep breathing is a simple, yet powerful, relaxation technique. It's easy to learn, and provides a quick way to get your stress levels in check. The key to deep breathing is to breathe deeply from the abdomen, getting as much fresh air as possible in your lungs. When you take deep breaths from the abdomen, rather than shallow breaths from your upper chest, you inhale more oxygen. The more oxygen you get, the less tense, short of breath, and anxious you feel.

(b) **Progressive Muscle Relaxation for Stress Relief.** Progressive muscle relaxation involves a two step process in which you systematically tense and relax different muscle groups in the body. With regular practice, progressive muscle relaxation gives you an intimate familiarity with what tension as well as complete relaxation feels like in different parts of the body. This awareness helps you

spot and counteract in first signs of the muscular tension that accompanies stress. And as your body relaxes, so will your mind. You can combine deep breathing with progressive muscle relaxation for an additional level of stress relief.

- (c) **Mindfulness for Stress Relief.** Mindfulness is the ability to remain aware of how you are feeling right now, your “moment to moment” experience both internal and external. Thinking about the past blaming and judging yourself or working about the future can often lead to a degree of stress that is over whelming. But by staying calm and focused in the present moment, you can bring your nervous system back into balance.
- (d) **Yoga Asanas and Pranayam.** Yoga asanas involves a series of both moving and stationary poses combined with deep breathing as well as reducing anxiety and stress. Asanas can also improve flexibility, strength, balance and stamina. There are various asanas which reduce stress such as Savasana (dead pose), Makra Asana, Padma Asana (Lotus posture). The pranayam such as Anulom-Velom, Surya Bedana, Ujayi, and Bhramari help to control stress.

Conclusion:

Stress is the biggest challenge of the modern world. The role of yoga in stress management is very far reaching indeed. When stress throws your nervous system out of balance, relaxation techniques can bring it back into a balance state. The regular practice of yoga relaxes body and mind especially during stressful condition. In addition, yoga improves muscular skeletal flexibility, balance, strength, improves memory, concentration and endurance in yoga practitioners.

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ASANA AND PRANAYAMA

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Asana is the most powerful Exercise for Human Body

Asana are the most popular and most widely known practice of yoga in the west. If a friend tells you “I’m going to yoga class” you would probably understand her to mean that she is going to do some physical exercise. However, asanas are quite

Different from most other forms of physical fitness, in many ways. They do not attempt to develop your muscles through mechanical movements; instead they demand your full attention. Yoga sees your body as a vehicle for your soul in its journey towards perfection. When practiced regularly, they develop your mental capacities, broaden your consciousness and ignite your spiritual yearnings. Good health and physical fitness is a much-welcomed by-product, but not the final objective of the practice of asanas. The real goal of asanas, as of all yoga practices, is inner peace.

Keywords: Asana & Pranayama.

Introduction:

Asanas emphasis slow, genital, non-violent movement. On –Violence involves being non competitive with other and not being to harsh or judgment with yourself. It if best if you never force your body in to any position. To master the asanas, work steadily but slowly. Fast movement often result in build up of lactic acid in your muscles, leaving you feeling tired and stiff.Increasing the amount of oxygen you bring into your cell can neutralizes the lactic acid. You actually focus on the tension and consciously “breathe” it out of your body. You being to develop your abilities to control your own body by using your mind.

Asana work on every aspect of your physical being, not just your muscles and joint. They massage your internal organs, stimulate circulation and enhance respiration. They also make your mind steady, concentrated and ready for meditation. A better translation for the word “asana” would be pose, position or seat. The term implies much more then physical exercise. Its roots are connected to the idea of being fully present in the movement and being firmly grounded in your body.

Some General Guideline for Asana Practice:

- Let your reach slightly exceed your grasp, but stop before you experience pain.
- Breathe deeply as you hold each pose.
- Use your breathe to relax, and try to relax in to every pose.
- It is always best to learn asana from a qualified yoga teacher.
- Enjoy your practices.

- At first, practice each asanas for a short period; gradually increase the amount of time that you hold it.
- End your session with a relaxation that encourage your energies to flow unimpeded throughout your entire body.
- As you hold the position, check your body mentally. If you find tension anywhere in your body, try to consciously “breathe” it out.

Warming Up:

Neck Stretches:-

If you are stiff, especially if you are practicing in the early Morning, you may want to start by giving your body a Good shake. Let your fingers and hands go limp; shake them from the wrists. Then shake your arms, shoulders, feet and legs.

Forward and Back:

Drop your head down towards your chest, so that your chin touches your (breastbone); hold this for 2-3 second to allow your neck muscles to relax and stretch out. Then lift your towards ceiling as you bring your head back as far as you can Visualizes the back of your head touching your spine, hold 2-3 second.

Stretch side to Side:

Bring your head down to the left side so that your left ear comes as close to your shoulder as possible. Do not allow your neck to twist or your shoulder to lift. Bring your head back to center and then stretch to your right.

Turn your head from shoulder to shoulder:

Without moving your shoulder, turn your head to over your right shoulder, as you are trying to see behind your back. Then turn to the left. Repeat these movements 3-4 times in each direction. Return your head toots central position.

Pranayama:

Next comes pranayama which enables you to control the flow of your breath and increase your vital energy. These breathing exercises uncover the light of pure consciousness and bring about mental clarity.

Raja Yoga:

Your breath is your most intimate companion. It is the essential interface your body and your mind. Your breath both responds to and controls your emotions as well as your thoughts. Yogic breathing exercise is called Pranayama. The literal translation of this Sanskrit word “control of the prana”. Prana is the vital energy, or life force, that is known in Chinese as “chi” and Japaness ki Regular practice, pranayama enables you to more consciously control the non physical subtle energy within your own being.

The Question is why do Pranayama?

Pranayama is the link between the mental and physical disciplines of yoga. While the action is physical, the effect to make the mind calm, lucid and steady.

-Swami Vishnu – Devananda

Controlling your own mind is perhaps one of the most difficult things you can do in life. After observing the intimate connection between the mind and the breath. By its very nature your mind tends to be unsteady. It is constantly affected by the images it sees, hear and experience through your senses.

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- Gary Kraft: Accessible introduction to the multidimensional self with plenty of discussion on pranayama.
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- Mukund Stiles: Structural Yoga Therapy Details muscle movements with posture benefits.
- George Feuerstein: Provides context for yoga from ancient to modern times from a renew yoga scholar.

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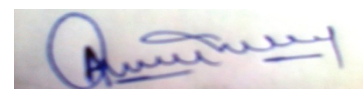
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It gives me a great pleasure to launch this new “International Research Journal of Physical Education and Sports Sciences.” There are a lot of challenges which the growing Physical Education and Sports face in the realms of basic necessities in life. Research and Technology can play a very distinct role in bringing about this change. It is very important that different stakeholders unite and collaborate on issues which confront the own society. One of the key objectives of research should be its usability and application. This Research Journal attempts to document and spark a debate on the research focused on technology in context of emerging geographies. The sectors could range from Physical Education, Sports, Anatomy & Physiology, Psychology, Health Education, Physiotherapy, Yoga, Sports Bio- Mechanics, Philosophy, Test & Measurement, Sports Management, Curriculum, Sports Training and Anthropometry etc.



The first issue has been very carefully put together covering a range of Physical Education and Sports Sciences. The contributions have come in not only from India from our Profession and academics but also from very renowned institutions and Universities as well.

I would like to thank all Contributors and all the Editorial Team Members, Reviewers and Initial Team which has helped in making this Research Journal a possibility. We hope that the research featured here sets up many new milestones. We have had an overwhelming response from some very eminent Editors and Researchers globally to support as Editorial Team. I look forward to make this Endeavour very Meaningful. Very warm thanks to all Physical Educators in Our Country and Abroad to provide an opportunity to make this Research Journal a reality.



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