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Special Issue on

"SWASTHA BHARAT IN INDIA : PROBLEM – PROSPECTS AND WAY FORWARD"

Special Issue Editor

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EFFECT OF YOGIC EXERCISES ON CO-ORDINATION AMONG VOLLEYBALL PLAYERS

♣NISHA .M & Dr. JYOTI. A. UPADHYE♦

Abstract : The purpose of the present study was to find out the Effect of Yogic Exercises on Co-ordination among Volleyball Players. For this purpose, 48 subjects from Vijayapura District, from Karnataka state India. Were selected as subjects and they were divided in to two equal groups with 12 each as experimental and control group. Experimental group underwent selected of yogic exercises daily morning 60- minute included 10 minutes of warm-up and the control group not given any special training. The training period for this study was 6 weeks in a schedule of 5 days in a week. The pre and post test were conducted prior and after the training programme on theselected Physical variable of Co-ordination. The mean, standard deviation and t-value were assessed both experimental and control group separately and thereby significant level were analyzed. The significant level was fixed at 0.05 levels. The result of the study revealed that the experimental group shown the significant improvement in selected variable where as in Co-ordination and the Control group were not shown any improvement. The results revealed the Effect of Yogic Exercises on Co-ordination among Volleyball Players.

Keywords: Effect of Yogic Exercises, Physical variable, Co-ordination, Volleyball Players

Introduction

Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body. It is an art and scince of healthy living. The word 'Yoga' is derived from the Sanskrit root 'Yuj', meaning 'to join' or 'to yoke' or 'to unite'. As per Yogic scriptures the practice of Yoga leads to the union of individual consciousness with that of the Universal Consciousness, indicating a perfect harmony between the mind and body, Man & Nature. According to modern scientists, everything in the universe is just a manifestation of the same quantum firmament. One who experiences this oneness of existence is said to be in yoga, and is termed as a yogi, having attained to a state of freedom referred to as mukti, nirvana or moksha. Thus the aim of Yoga is Self-realization, to overcome all kinds of sufferings leading to 'the state of liberation' (Moksha) or 'freedom' (Kaivalya). Living with freedom in all walks of life, health and harmony shall be the main objectives of Yoga practice."Yoga" also refers to an inner science comprising of a variety of methods through which human beings can realize this union and achieve mastery over their destiny.Yoga, being widely considered as an 'immortal cultural outcome' of Indus Saraswati Valley civilization – dating back to 2700 B.C., has proved itself catering to both material and spiritual upliftment of humanity.Basic humane values are the very identity of Yoga Sadhana.

'Yoga' originates from the Sanskrit root yuj, which signifies 'association.' In the spiritual sense, yoga implies association of the mind with the heavenly intelligence of the universe. Yoga points through its practices to liberate an individual from the contentions of duality, which exists in each living thing and from the impact of the gunas, the characteristics of widespread energy that is available in each physical thing (Muller, 2012).

Yoga basically implies the reconciliation of personality at all levels: physical, mental, social, intellectual, emotional and spiritual (Gharote, 1990). Yoga is a technique by which one

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can acquire control of one's dormant powers. It offers the entire intends to self-realization (Sreekumar, 1968)

Objectives of the study

The core aim of the present study was to find out the Effect of Yogic Exercises on Co-ordination among Volleyball Players.

Methodology

For the purpose of this study 48 Volleyball Players were selected as subjects from a Vijayapura District, from Karnataka state India. The subjects were divided in to two groups equally with 12 each as experimental and control group. Experimental group underwent Sixty minute in the morning Yoga training included 10 minutes of warm-up before the Yogic Exercises. The one hour yoga training includes eleven yogasanas. The Yogasanas are Padmasana, Sarvangasana, Halasana, Bhujangasana, Matsyasana, Chakarasana, Dhanurasana, Ardhamatsyenderasana, Vajrasana, Sirashasana and Savasana. The tests were carried out with standardized procedure. The pre and post test were conducted on selected Physical variable of Co-ordination. The Physiological parameters were assessed through standardized Procedures (dropping and catching a ball with both hands and dribbling a ball –alternate hands).

Statistical procedure

The collected data of experimental and control groups were statistically analyzed by using mean standard deviation and t- test and presented in Table 1.The level of significance was fixed at 0 .05 level of confidence with the table value of 2.00. The t-values of 10.782 and above were considered significant in this study.In the tables it was denoted by star (*) which indicates 0.05 significant level.

Results and Discussions

Table No.1.Shows the Mean, Standard Deviation and 't'- value of Pre-test and Post–test for Yogic Exercises Experimental Group and Control Group on Co-ordination performance.

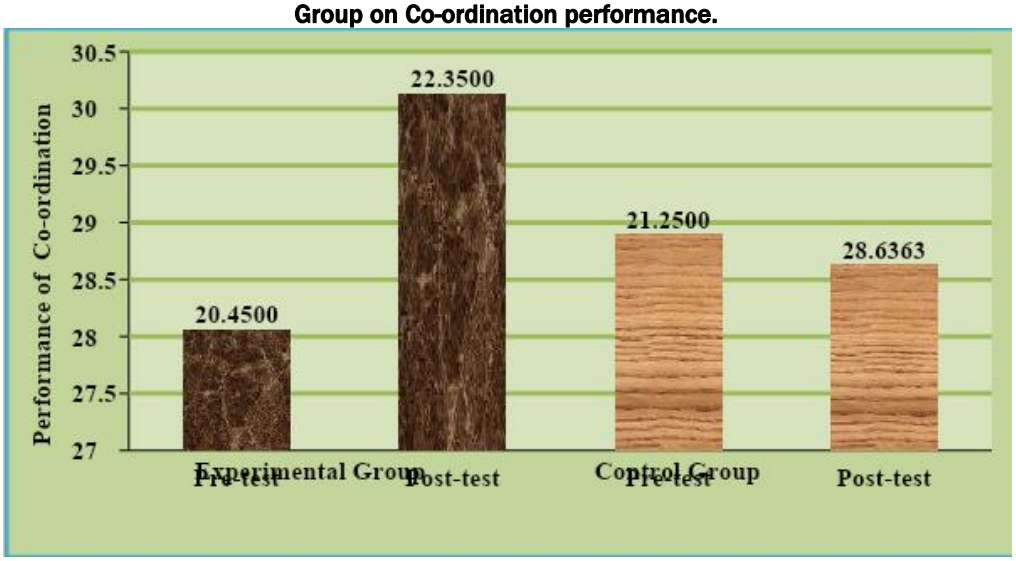
Variable	Groups	Test	N	Mean	SD	t- Value
Co-ordination	Experimental Group	Pre-test	12	20.4500	4.03243	10.782*
		Post-test	12	22.3500	4.06882	
	Control Group	Pre-test	12	21.2500	4.20370	.250
		Post-test	12	21.2245	4.23314	

The level of significant 0.05=Table value =2.00

Table No 1. Indicates that the't'- value is more than the table value that is 2.00, hence it is significant.

The pre-test mean value is 20.4500 and the post-test mean value 22.3500. The post-test mean value is less than pre-test mean value. It shows significant improvement in the Co-ordination performance of Volleyball Players owing to the Six weeks Yogic Exercises. The pre-test mean value is 21.2500 and the Post-test mean value 21.2245. The post-test mean value is more than the pre-test mean value. It is shows no improvement in the Co-ordination performance of Volleyball Players subjects control group did not undergo any kind of training Programme the same as displayed in the figure 1. (a)

Figure No.1.The Pre-test and Post–test for Yogic Exercises Experimental Group and Control Group on Co-ordination performance.



The above figure 1. (a) Indicates that the post test values of Experimental group significantly improved the performance of Co-ordination and also the post-test values of Co-ordination were less than the pre- test values due to 6 weeks of Yogic Exercises. The Control group pre- test and post- test performance of Co-ordination shows no improvement

Conclusions

The results of the present study indicate the Effect of Yogic Exercises on Co-ordination among Volleyball Players. In the experimental group the selected variables were significantly improved in the teach us that Yogic Exercises is useful to everyone in particularly sports persons to achieve the higher performance level because the selected variables in the study were more related to the sports men too. Further the control group post test means score indicates that the Yogic Exercises not improvement.

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ANXIETY AMONG MALE AND FEMALE CYCLIST: COMPARATIVE STUDY

♣PARVATI TAMBAKE & Dr. HOOVANNA SAKPAL♦

Abstract : The purpose of the study was to examine the differences on aggression level among Male and Female Cyclist. The sample consists of 30 students (15 male and 15 female) within age range of 14 to 17 years. Anxiety Scale (Pallavi Bhatnagar) was administered to all the respondents. The data were analyzed by using descriptive statistics i.e. Mean, SD, and independent t-test. The results indicated there is no significant difference between male and female students on Anxiety levels.

Keywords: Anxiety and Male and Female Cyclist

Introduction

Anxiety is an emotion which is characterized by an unpleasant state of inner turmoil and it includes subjectively unpleasant feelings of dread over anticipated events. It is often accompanied by nervous behavior such as pacing back and forth, somatic complaints, and rumination.

Anxiety is a feeling of uneasiness and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing. It is often accompanied by muscular tension, restlessness, fatigue, inability to catch one's breath, tightness in the abdominal region, nausea and problems in concentration. Anxiety is closely related to fear, which is a response to a real or perceived immediate threat (fight or flight response); anxiety involves the expectation of future threat including dread. People facing anxiety may withdraw from situations which have provoked anxiety in the past.

Though anxiety is a typical human response, when excessive or persisting beyond developmentally appropriate periods it may be diagnosed as an anxiety disorder. There are multiple forms of anxiety disorder (such as generalized anxiety disorder and obsessive compulsive disorder) with specific clinical definitions. Part of the definition of an anxiety disorder, which distinguishes it from every day anxiety, is that it is persistent, typically lasting 6 months or more, although the criterion for duration is intended as a general guide with allowance for some degree of flexibility and is sometimes of shorter duration in children.

According to Frost (1971) Anxiety is an uneasiness and feeling of foreboding often found when a person is about to embark on a hazardous venture; it is often accompanied by a strong desire to excel.

Objectives

To examine difference between male and female Cyclist on Anxiety

Hypotheses

There is significant difference between male and female Cyclist on Anxiety.

Sample

The present study was conducted on a sample of 30 Cyclist in Sports Hostel (15 male and 15 female) by using convenient sampling method. The sample was selected from Vijayapura, district of Karnataka State, India. The age range of the sample was from 14 to 17 years.

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Tool

Anxiety Scale: In the current study we have taken Aggression Scale (AS) by Dr.Pallavi Bhatnagar to investigate the Anxiety levels of among male and female Cyclist.

Procedure

First informed consent was taken from the participants and then providing proper instruction, after that above mentioned psychological tool was administered on target sample for obtaining the data. The answered questionnaires were collected and scored according to the manual. The scores were statistically analyzed using SPSS 16.0 version and analysis was done accordingly.

Results

The present investigation is conducted to study the role of Anxiety among male and female Cyclist. The obtain data were analyzed by applying descriptive statistics and t-test among male and female group. The results of the analyses are described according to Table-1 which presents the mean, SD and t value of the male and female Cyclist. A perusal of the table reveals that there was no significant difference between male and female on the Anxiety.

Table – 1 Mean and SD of Male and Female Cyclist on Anxiety

Variable	MaleN=15		FemaleN=15		t- value	P
Anxiety	Mean	SD	Mean	SD	.764	NS
	12.7250	2.56702	12.6000	2.41293		

Note = N.S. Means, Non Significant

On Anxiety, mean and SD of male group are 12.7250 and 2.56702 whereas it is 12.6000 and 2.41293 for female group, respectively. The obtained t value is .764 which is significant non-significant. It may be interpreted that there is no difference among male and female students on Anxiety levels.

Figure-1.(a) Showing Mean Scores and Standard Deviation of Anxiety of Male and Female Cyclist

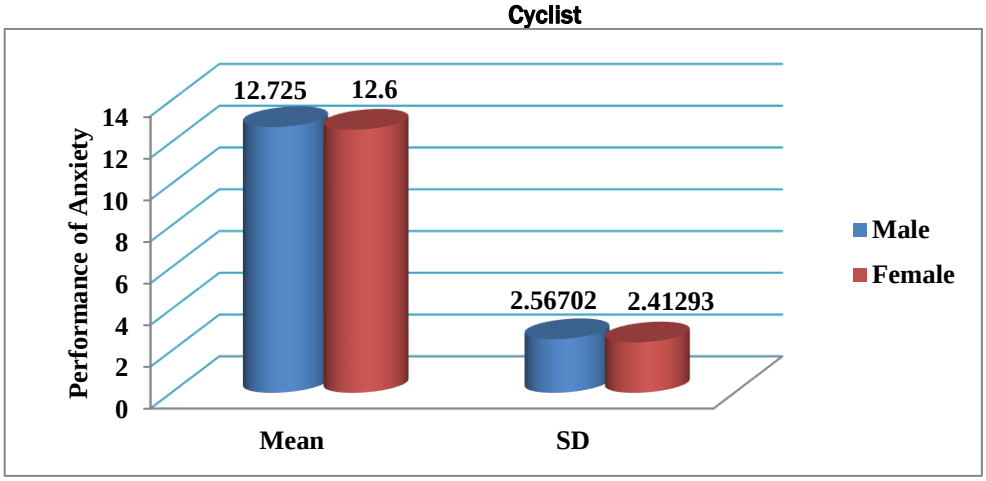

Figure 1. (a) The above figure indicates that Anxiety Performance mean scores a different the graphs showing of comparison of Male and Female Cyclist with to Anxiety Performance scores.

The mean Anxiety scores of Male and Female Cyclist are 12.7250 and 12.6000, SD are 2.56702 and 2.41293 respectively. It means that the Anxiety Performance of Female Cyclist is better than Male Cyclist.

Discussion

The findings of the present study are not supporting the hypotheses of earlier research. The results of the present study showed that there is no significant difference between male and female Cyclist on Anxiety. It may be because of their personality, life style and difference in their psychological environment. Thus hypothesis 1 regarding the difference between male and female Cyclist on Anxiety is rejected here. Earlier findings by Ami et al. (2017), which shows boys had high level of Anxiety than girls. Finding also revealed that boy have higher level of physical as well as verbal Anxiety than girls.

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SPORTS NUTRITION PLAYS AN IMPORTANT ROLE IN SPORTS PERFORMANCE – A REVIEW

PRAVEEN. M*

Abstract : Sports nutrition can be described as the practice and the study of diet and nutrition and how they both relate to the athletic performance of a sports personality on the field. A sports nutritionist needs to be well versed, not just with the different foods that are good for sports personalities, but also with the type and quantity of fluids, as well as dietary nutrients, which make up an integral part of a diet for a sports person. The nutrients that should be included in high amounts in every sports diet are protein, carbs, calcium, iron, fiber, fats and other vitamins and minerals. However, it is mainly the sports diet plan for strength sports, like body building and weight lifting, along with endurance sports, like running, sprinting and cycling, which focus on adequate sports nutrition.

Keywords: Diet in sports, sports dietary supplements, Carbohydrates, Hydration, Dehydration

Introduction

Sports nutrition is a broad interdisciplinary field that focuses on the science behind and application of proper nutrition during exercise. The areas of interest are: body's use of nutrients during athletic competition; the need, if any, for nutritional supplements among athletes; and the role of proper nutrition and dietary supplements in enhancing an athlete's performance. The psychological dimension of sports nutrition is concerned with eating disorders and other psychiatric conditions related to nutrition among athletes.

History of a diet in sport

Although not a lot of people are aware of this, diets for sportsmen have been followed right since the time that the Romans and the Greeks began the Olympic Games. All the athletes that participated in the various events followed a special regimen that was crafted for optimal athletic performance. This regimen also included sports dietetics. Ironically, back then alcohol was regarded as an ergogenic supplement which was consumed for improved performance. This practice was carried on by most of the Olympic athletes till the 1900. However, the sport diet has undergone a drastic change since then, to incorporate more performance enhancing natural foods and to eliminate steroids and drugs, which could harm the body eventually.

Modern diet for a sportsman

Fortunately, in today's world a sports person's diet is very different from what was followed in the past. Whereas earlier sportsmen were encouraged by their trainers to eat huge amounts of just about anything, athletes nowadays are extremely careful about the foods they eat as well as the quantities and frequency of their meals. It has been seen that athletes no longer eat a lot more than what normal people eat. In fact, while most of them stick to the same quantity food, the types of food chosen are generally high in nutrition. Depending on the needs and requirements of the athlete,

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some of them may choose to eat higher amounts of calorie dense foods, whereas other athletes may stick foods that are low in calories and fat.

Moreover, since scientists, medical experts and sports dietitians are constantly carrying out new studies and researches on what foods and supplements are good for athletes and which ones should be avoided. The area of sports nutrition and diet can be a bit complicated, since it is so vast; however there are certain dietary tips that can be incorporated in almost any sportsman diet, be it a golfer or a weight lifter. The first thing to remember is that sports personalities may require additional calories, because of the amount they work out. However, these extra calories should come from nutritious foods, like fruits, vegetables, whole grains, dairy products, nuts, eggs, fish, and lean meat. Empty calories that come from sweets, confectionary, bakery items, fried foods and aerated drinks merely increase body weight, without adding any nutritional value to the body.

Sports dietary supplements healthy

The main reason that athletes turn to sports dietary supplements is that they are looking for a "magical ingredient", which may have the ability to boost their strength and stamina, which improves their performance for a while or during a particular event. While some natural energy boosting foods are acceptable, the consumption of illegal drugs and steroids like anabolic steroids should be strictly avoided. Some of the sports dietary supplements like protein supplements may be helpful in boosting muscle mass. However, it is not advisable to take any supplement, even on a one-time basis, without consulting a sports dietician as well as a fitness trainer first.

In case a person is exploring the option of becoming a sports dietician, there are a few courses that will need to be taken, before getting certified in the field of sports dietetics in the USA. There is a lot of information easily available through online resources, on sports nutrition graduate programs, degree, internships, center, books, certification and articles too, for further reference.

Athletes Eat More Carbohydrates

The quality and selection of food is an important part of a diet for an athlete. Athletes need to plan their carbohydrate intake, protein intake and vitamin intake as well. Athletes' carbohydrate intake depends on the type of sport they are training for. For example, bikers, long distance runners and swimmers or athletes that have to stay active for long periods of time, need to follow a diet that is high in carbohydrates. Athletes' carbohydrate requirement is determined by the sport that they are pursuing. Such endurance athletes carbohydrate intake should be about 50 to 70 per cent total calorie intake from carbohydrates.

Eat After Game To Gain Energy

Carbohydrates provide quick energy. Foods which contain foods should be included in the list of foods to gain energy after a game. Most athletes eat carbohydrates before a game as the body burns carbohydrates for fuel first. Try eating these foods to gain energy after a game: fresh fruits and vegetables, cereal bars and so on. Healthy eating after a game also means including foods such as pasta, lean beef, fiber rich foods such as nuts, beans, whole grain breads, whole grain cereals, and so on. Food to gain energy after game could also be natural fruit juices and dried fruit.

High Protein Cause Dehydration

Research has shown that there is a connection between a high protein diet and dehydration. High protein diets are followed by athletes as such diets help to increase the muscle mass in their bodies. However, a high protein diet and dehydration are linked because as the amount of protein consumed by the athletes increased, the degree of hydrated decreased. A sense of feeling thirsty is a sign that dehydration has already set in. Dehydration causes other problems which include shock, acidosis, an irregular heartbeat, acute uremia and even death. The latter is more frequent in people who are sickly, aged or in infants.

The Idea And Good Pre Game Meal

What is the ideal pre game meal? Some people feel that the ideal pre game meal is one that is loaded with carbohydrates as carbohydrates provide the body with quick energy. An ideal pre game meal is one that contains about 70% of carbohydrates. This will prevent the athlete from getting tired. Certain foods that should be a part of this pre game meal include cheese, whole grain bread, salad and cheese. Pregame diet guidelines include staying away from foods that have a high content of processed sugar and any new foods that have not been tried earlier. Choose your foods wisely for a pregame meal.

Eat Extra for Excellence

There's a lot more to eating for sports than chowing down on carbs or chugging sports drinks. The good news is that eating to reach your peak performance level likely doesn't require a special diet or supplements. It's all about working the right foods into your fitness plan in the right amounts.Teen athletes have unique nutrition needs. Because athletes work out more than their less-active peers, they generally need extra calories to fuel both their sports performance and their growth. Depending on how active they are, teen athletes may need anywhere from 2,000 to 5,000 total calories per day to meet their energy needs.

So what happens if teen athletes don't eat enough? Their bodies are less likely to achieve peak performance and may even break down rather than build up muscles. Athletes who don't take in enough calories every day won't be as fast and as strong as they could be and may not be able to maintain their weight. And extreme calorie restriction can lead to growth problems and other serious health risks for both girls and guys, including increased risk for fractures and other injuries.

Sports Nutrition Meal Plans

Breakfast: The Most Important

Eating regular meals and healthy, energy-filled snacks will not only make you more conscious of what you eat, but will boost and maintain your metabolism. Highly encourages that you make sure to eat breakfast — anything goes for this meal, from traditional breakfast foods to leftovers. The ultimate quick breakfast is a glass of juice and a glass of milk, but an example of a nutrition-packed breakfast is 1 cup oatmeal topped with 1 cup fat-free yogurt and 2 tbsp. raisins, two slices multi-grain bread with 1 tbsp. peanut butter and an 8 oz. glass of orange juice.

Lunch: A Priority

Lunch a priority and that you can pack a quick, healthy lunch of dried soup or fruits and energy bars. You can even drink liquid meal replacement or instant breakfast drinks if you are in a real hurry. When you eat out, focus on eating carbohydrate-loaded, non-fat-filled meals such as pasta, rice or potato-based main entrees. A hearty, healthy lunch ensures plenty of energy for your workout or competition later in the day. An energy-packed lunch example is one lean hamburger on whole grain bun with tomato and onion, 1/2 cup pasta and bean salad and a handful of baby carrots dipped in yogurt salad dressing.

Dinner: Sit Down, Eat Well

Dinner is the time to recover and re-fuel for tomorrow's workout or event, so you sit down and not hurry through dinner. Remember, you are storing food as fuel for your hard-working muscles, and it's important not to skimp on calories during dinner. For an athlete, a good dinner menu is 1 cup black bean and meat chili over 1 cup Aztec rice and corn mix, dark green salad with 1 tbsp. low-fat salad dressing and 1 cup frozen yogurt with 1/2 cup fresh or frozen strawberries.

Eat the Right Balance

Even if you are a professional athlete, finding the time to eat the right healthy, energy-filled foods during your busy day can be easier said than done. If you do anything correctly, eat the right balance of carbohydrates, proteins, and fats. With the understanding that carbs are your muscle's main source of fuel, author Monique Ryan in "Sports Nutrition for Endurance Athletes" suggests a balance for your diet of 60 percent carbs, 25 percent fats and 15 percent proteins. These percentages represent everything your body will need for excellent sports nutrition.

Hydration

Staying well hydrated is critical for an athlete as well. Using distance running as an example, "Eat, Drink, and Finish Strong" that for each 1 percent loss of body weight lost via sweating, you slow down 2 percent. In other words, become dehydrated, and your performance decreases. Eight servings of water per day as the foundation of a good sports diet. Runner or not, no matter your sport, drink freely of water and/or electrolyte-loaded sport drinks.

Ergogenic Aids and Performance

An ergogenic aid is defined as any means that supports in enhancing energy and utilization. Athletes use ergogenic aids to maximize performance separate themselves from the competition. Researchers classified ergogenic aids as mechanical, psychological, physiologic, and more researched pharmacological and nutritional. The general public seems mostly concerned with anabolic steroids, but a vast array of other ergogenic aids have come under scrutiny in athletics. In 2013, 0.7% of male athletes and 0.1% of female athletes reported using anabolic steroids in the last 12 months. Human growth hormone (HGH) is a commonly used aid in athletics, despite no evidence that says it improves strength, power, or performance. Amphetamines, creatine, erythropoietin (EPO), and androstenedione are several other ergogenic aids that are widely used that will be covered below. Numerous researchers reported the use of performance-enhancing substances (PES) in athletes as variable and range from 5% to 31%. Recent authors conducted an anonymous questionnaire to 2,987 German triathletes and found 13.0 % used PES to improve performance. 15.1 % of athletes noted the usage of cognitive doping to increase focus, determination, and memorization.

Anabolic Steroids

The main benefits of steroids are increased muscle size, strength, and lean body mass. Researchers randomly assigned 21 male weight-training subjects to either a testosterone or a placebo group over a 12-week period and found those in the testosterone group had significantly greater increases in muscle strength and circumference and decreases in abdominal skinfold measurements than the placebo group. Common side effects include acne, testicular atrophy,

gynecomastia, cardiovascular disease, arrhythmias, stroke, blood clots, liver dysfunction, and cancer. Anabolic steroids are banned in all major sporting associations and events.

HGH

HGH is released in the anterior pituitary gland and stimulates growth through the actions of insulin-like growth factor-1 which promotes lipolysis and protein anabolism to decrease fat and increase lean muscle. Authors reported that although HGH leads to an increase in muscular size, it does not lead to an increase in strength or athletic performance. Common side effects from prolonged fluid accumulation can lead to arthralgias and carpal tunnel syndrome among others.

Amphetamines/Stimulants

Commonly used stimulants include amphetamines, ephedrine, caffeine, phenylephrine, and methamphetamines. Stimulants release norepinephrine, which results in vasoconstriction, increased blood pressure, mood elevation, resistance to fatigue, and even an increase in anaerobic capacity in some studies. A lower level of caffeine is the only accepted stimulant with drug testing.

Beta-Hydroxy-Beta-Methlbutyrate (HMB)

HMB is becoming increasingly more popular in supplementing training regimens. It is a precursor to cholesterol and is believed to diminish protein breakdown. Researchers found upper body strength and peak torque generation showed decent improvements after HMB supplementation in untrained individuals, but bench press gains and leg press one-repetition maximums in trained athletes were not affected. HMB is not tested for and completely safe.

Creatine

Creatine monohydrate is a naturally occurring compound that serves as an energy substrate for muscle contraction and is consumed in most diets. Studies show increases in strength, power, sprint times, total work to fatigue, peak force, and peak power. Of 21,000 students, the NCAA reported 14% usage among all athletes, with other studies reporting a 41% to 48% usage among college males. Caution should be observed in extreme, long-term usage, due to liver and kidney disease.

Vitamins

Athletes primarily use vitamin E, C, and A. Researchers thought these vitamins were antioxidants and therefore able to act as free-radical scavengers, but current research does not support their use for significant increases in performance.

L-carnitine

Researchers believed L-carnitine slowed muscle glycogen breakdown and led to a decrease in lactic acid production during exercise, which was proved inconclusive. Large doses of L-carnitine can cause excessive diarrhoea.

Androstenedione

As a natural precursor to testosterone, androstenedione is thought to allow for conversion to testosterone, but the majority of studies showed no significant increases in composition, strength, and testosterone concentrations. Most researchers found androstenedione lowered HDL levels, which increases the risk of cardiovascular issues, as well as the potential for the down-regulation of endogenous testosterone synthesis. Androstenedione is banned in all major sporting associations and events.

Erythropoietin (EPO)/Blood Doping

Endurance athletes benefit from improved delivery of oxygen to their tissues. One method which athletes attempt this is by living or training at high altitudes and another is through blood doping. Blood doping transfusions artificially increase the hematocrit, which increases the oxygen-carrying capacity of blood. An alternative to doping, the drug EPO, which is produced mostly in the kidneys, increases hematocrit levels when administered in recombinant form. In response to hypoxic exposure, the body produces a greater amount of EPO.

After an autologous transfusion of 750 mL of red blood cells, the VO2 max increased by 12.8 %, and times on a treadmill test to exhaustion improved significantly. With blood doping, researchers found a 34% increase in time to exhaustion at 95% VO2 max, and a 44-second improvement in a five-mile treadmill run time performance. Other authors performed a double-blind, placebo-controlled study of 4 weeks of EPO supplementation using a cycle ergometer and noted a hematocrit increase from 42.7% to 50.8% and a VO2 max increase from 63.6 to 68.1 mL kg–1 min–1.

Eating Disorders and Body Image in Athletes

Athletes may have a more positive body image than nonathletes. A meta-analytic review found a small effect size which indicated athletes had a more positive body image than nonathletes. The review found no difference between females or males, the type of athlete, age or body mass index . Those who exercise regularly like athletes have been found to have a more positive body image than those who do not.

Despite athletes overall having a more positive body image than nonathletes, they may be more likely to develop an eating disorder. Common eating disorders include anorexia nervosa, bulimia nervosa, and anorexia athletica. Researchers compared the prevalence of eating disorders between 1620 male and female elite athletes with 1696 male and female controls. They found 13.5% of athletes had eating disorders compared with 4.6% of the controls. Females athletes were also more likely to have eating disorders than males. Those in aesthetic sports such as gymnastics, dancing, figure skating, aerobics and diving or sports with weight classes were more likely to have an eating disorder than those in endurance, technical or ball game sports. Another medical condition female athletes who compete in sports which emphasize leanness are at risk of developing is the female athlete triad.

The treatment of athletes with eating disorders requires a multidisciplinary approach. Coordination and support ideally should be provided from sports medicine professionals, athletic trainers, dieticians, psychiatrists, coaching staff, teammates and those close to the athlete. Cognitive behavioural therapy, psychodynamic psychotherapy and medications such as selective serotonin reuptake inhibitors and atypical antipsychotics may also be used. Eating disorders should be treated like sports injuries and require prevention, screening programs, correct treatment and timely support

Conclusion

The ultimate goal of sports nutrition is to enhance an athlete's performance. However, before that, the athlete's body composition needs to be worked on, so that the athlete's speed, balance, mobility, strength and concentration can be sharpened. Moreover, the bodies of several athletes go through a lot of wear and tear and may also sustain injuries. The sports diet should boost their immunity system and increase their internal body strength so that they can recover from such afflictions at a faster pace. The ideal sport diet increases the athlete's overall energy, not just on the sports field, but also during practice sessions. Therefore sports nutrition is not just eating right for particular even, but making dietary changes to meet an athlete's long term requirements.

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HEALTH RELATED BENEFITS OF AEROBIC EXERCISE AND YOGA

♣RADHIKA G. MILLI & Dr. S RINIVASA♦

Abstract : Yoga is a spiritual, mental and physical practice that has been around since ages. With time, people have discovered a number of health benefits associated with yoga. Aerobic exercise reduces the risk of many health conditions, ranging from heart disease to dementia The aerobics wins hands down when it comes to muscle training. On the other hand, you need yoga to build lean muscle mass and increase flexibility. Yoga also makes a person, physically, mentally and spiritually stable

Keywords : Yoga ,Aerobic exercise, benefits

Introduction

Yoga is a spiritual, mental and physical practice that has been around since ages. With time, people have discovered a number of health benefits associated with yoga. Yoga does more than burning calories and strengthening muscles, it is a workout which involves both body and mind.

Aerobic exercise reduces the risk of many health conditions, ranging from heart disease to dementia. Although all forms of physical activity provide some benefits, aerobic exercise is particularly effective because it causes the heart and lungs to work harder than usual.

Aerobics:

Aerobics means involving or requiring free oxygen. It refers to use of oxygen to meet energy demands during physical exercise. The exercises are performed at a moderate level of intensity over a long period of time. It includes continuously moving your body on techno music on PT exercise type movements.

It can include traditional dance movements such as line movements or box steps. Sometimes non-traditional movements such as belly dancing or hip hop are also there. Aerobics constitute all the benefits of Aerobics and Yoga together.

Therefore, Aerobics is a good option for gym replacement as it gives a more muscular body because of body part focus. It is designed to work on everybody part individually. Moreover, it includes dumbells and steppers which provide extra strength. In general, aerobics is an efficient form of exercise for both weight control and health.

The benefits of aerobics are listed below:

- Strengthening the muscles
- Improving circulation efficiency
- Reducing blood pressure
- Facilitating the transport of oxygen
- Reducing the risk of diabetes
- Improving mental health
- Stimulating bone growth
- Reducing the risk of osteoporosis
- Expanding HDL cholesterol

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Aerobics has more physical benefits Because of more emphasis on physical workouts than dance movements, it feels harder. Hence, aerobics is also a better option for those who can't dance.

Yoga:

Yoga is a thousand years old practice which means union of body and mind. Essentially, Yoga helps in attaining a predetermined goal with discipline in place. Yoga includes techniques of controlling the body and mind. It is both physical and spiritual. It helps to improve health and happiness.

Yoga involves breathing, stretching, visualization, relaxation, and meditation. It delves into different territories when it comes to benefits of aerobics and Yoga.

The practice consists of slow-paced movements where participants focus on form and breathing. It is a personal method in which you can focus on yourself. The most important advice to be kept in mind while practicing yoga is to be patient.

Yoga helps to lose weight to an extent, but the main motive is to make the body more flexible. Although yoga provides physical strength, most of the benefits of yoga are internal. Different yoga poses can also help in curing several medical conditions.

Yoga poses include; arm stretches, back stretches, chest extensions, head rotations and more.

The physical, mental and spiritual benefits of yoga are listed below:

Physical benefits

- Provides strength
- Tones every part of the body
- Increases flexibility
- Improves blood circulation
- Improves posture

Mental benefits

- Expands concentration and attention
- Sharpens memory
- Provides emotional stability

Spiritual benefits

- Provides wisdom
- Experience of freedom in everyday life
- Major rest during the night
- Makes a person patient and quiet

Yoga is, therefore, the best option if a person wants to achieve physical, mental as well as spiritual benefits. But if a person has the only motive of reducing weight, then yoga might not be the best option.

Conclusion – Benefits of Aerobics and Yoga

The aerobics wins hands down when it comes to muscle training. On the other hand, you need yoga to build lean muscle mass and increase flexibility. Yoga also makes a person, physically, mentally and spiritually stable. So, if you focus on living a healthy lifestyle, then yoga is the best option for you.

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EFFECT OF YOGIC EXERCISES ON STRESS LEVEL AMONG ON SCHOOL STUDENTS

♣RAMESH MADAR & Dr. RAJKUMAR. P.MALIPATIL♦

Abstract : Psychological benefits of yoga. We have done our best to research and discover so many wonderful benefits that this great practice has to offer. That is why we here at Yoga. Org.nz will continue to practice yoga for the rest of our long rewarding lives. We wish you all the great benefits that we experience on a day to day basis. Below is a table that is a quick overview of all the benefits that we could find. This section along with the rest of this website will continue to grow. In the rat race of life, most people are enveloped in highly demanding jobs that leave them mentally as well as physically exhausted. The more sedentary your professional life gets, the higher is your anxiety. So, how do you combat such stress? The answer is inculcating yoga in your day-to-day life. Various research studies have assessed the efficacy of yoga in improving one's mental health, and have concluded that yoga does have an array of psychological benefits. I improve your memory Do you find it difficult to concentrate. Proven to be effectual in boosting your memory and concentration, Dhahran is an ideal way to clear your mind of all the excesses and calm your nerves. By silencing the static noise running through your mind, you equip yourself to focus better, remember important things, and therefore, perform bettering our life.

Keywords: Yogic exercises Stress level among on School students

Introduction

Consisting of activities such as relaxation, meditation, socialization, and exercise, yoga has been proven helpful in reducing your anxiety and stress. Yoga is able to accomplish this by helping regulate a person's stress response system. With its ability to lower blood pressure and heart rate as well as improve respiration, yoga provides you with the means to deal with and resolve anxiety and stress without resorting to expensive medications. Adolescence is a stage in one's life when a variety of mental health problems are more likely to develop.

With the many cases of psychological disorders diagnosed in teenagers, it has become imperative to find ways to prevent the onset of such mental health conditions. Yoga, among others, has been seen as a helpful method that can be used to protect adolescents from mental illnesses. This is according to a study published in the Journal of Developmental and BehaviouralPaediatrics. The said study had some of the subjects enrolled in yoga involves physical postures, breathing, relaxation, and meditation. In comparison to the control group, the yoga is displayed better moods, lower levels of anxiety and tension, better anger control, improved resilience, and enhanced mindfulness. These are just some of the many factors that are important in the prevention of psychological conditions in teenagers. The more sedentary your professional life gets, the higher is your anxiety. So, how do you combat such stress? The answer is inculcating yoga in your day-to-day life. Various research studies have assessed the efficacy of yoga in improving one's mental health, and have concluded that yoga does have an array of psychological benefits. Improve your memory Do you find it difficult to concentrate. Proven to be effectual in boosting your memory and concentration, Dhahran is an ideal way to clear your mind of all the excesses and calm your nerves. By silencing the static noise running

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through your mind, you equip yourself to focus better, remember important things, and therefore, perform better in your life.

Methodology

The methodology adopted in the present study related with selection of subjects, selection of variable, and selection of test selection of subjects: The purpose of the study was to find out "Effect of yogic exercises on stress level among on School students " To achieve this purpose 60 female students in the age group 14-16 years studying in Vijayapur were selected as subjects. Stress status scale: Stress status of the subjects the present study was estimated with the help of Stress status scale developed by Pallavi Bhatnagar manifest Stress scale. The response categories are true or false. The responses are scored with the help of manual.

Selection of Variables

Vakrasana, Padmasan, VajrasanPaschimotnasana, Trikoasana, Tadasana, Vrikshasana, GarudasanaHalasanaChakrasana, Naukasana, Shavasana. Shalabhasana, Dhanurasana, Makarasana, Bhujanagasana

Analysis and Interpretation of Data

The purpose of the study was to find out “Effect of yogic exercises on stress level among School students". To achieve this purpose the date collected for the study were put into analysis and results of which are presented in the table.

Table 1: Showing the Pre-test and Post-test for Stress level performance.

Group	Number	Mean	S.D	‘t’ Value	Remark
E Experiment (Pre-test)	15	51.70	6.35		
E Experiment (Post-test)	15	63.70	6.30	4.823	S
C Control (Pre-test)	15	55.10	5.41	0.773	NS
C Control (Post-test)	15	52.46	4.64		

The level of significant is 0.05.

Table 1 Shows that the experimental group's mean performance value of Stress Level of pre-test is 51.70 and the post test is 63.70 the post-test Stress Level performance is less than pre-test Stress Level performance and also the t value is more than the table value. Hence it indicates significant development of Stress Level performance of pre and post-test values are 55.10 and 52.46 respectively. The t value is less than the table value. Hence the pre and post-test values indicate insignificant.

Summary

The purpose of this study was to find out the "Effect of yogic exercises on stress level among on students". To achieve this purpose 6 weeks yoga asanas training was given to selected female subjects. To know the Effect of yoga asanas training on the Stress level training reduces Stress level performance.

Conclusion

The yoga asanas training reduces Stress level.

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THE PERSONALITY DIFFERENCES AMONG THE ATHLETES AND NON-ATHLETES OF BANGALORE UNIVERSITY

♣Dr. RAVINDRA .B .C & PRASAD .D♦

INTRODUCTION

Sports psychology is a growing branch of the psychology; sports psychology is the scientific stud of people and their behaviours in the sports. Modern days sports are very demanding. It requires for the sportsmen and athlete alike to perform to the very best of their abilities and beyond. The team includes supporters, trainers and sports doctors among others. Who are doing their bit in ensuring that athlete perform in competitions at the height of the mental, physical and emotional abilities that he or she is capable of. In all of this one are of psychology has an important part to play and that is sports psychology.

Sports psychology is concerned with preparing the athlete or teams to be able to hand the high emotional stress levels that come with participating in sports competitions. Psychologists and sports trainers can work in tandem to enhance the performance levels of the athlete

The coach can give appropriate information about the particular athlete to the psychologist, who will then be able to derive the psychological and behavioural patterns of the athletes before an event. With the help of this mental picture as well as the characteristics mental attitude of the athletes, the coach will be able to set up the most effective training schedule that will be bring out the best in all of the athlete'scapabilities. Thus sports trainers can use psychology and help their charges better and get the best performance out of them. In modern competitive sports, psychological preparation of a team is as important as teaching them different skills of a game with scientific methods.

Personality is defines as distinctive patterns is behaviours that characterise each individuals adoption to the situations of his/her life. Personality can be defines as a dynamic and organise set of characteristics possessed by a person that uniquely influences his/her cognition, motivations and behaviours in various situations.

OBJECTI VE OF THE STUDY

To find out the personality differences between athlete and non-athlete Bangalore district.

Hypothesis

There may not be any significant difference between athletes and non-athletes of Bangalore district in relation to personality.

Methods and materials

The study was conducted on 40 subjects were 20 male athletesand 20 male, non-athletes in the age group of 17 to 24 years old.

Table showing the sample of the study

Sl no	Name of the category	Number of the subjects
1	Athlete	20
2	Non-Athlete	20
Total		**40**

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Tools used

EYSENCK'S personality inventory was used for the study. Questnairies were distributes to 50 male athlete and 50 male non-athlete of football, basketball and hand ball players. Neuroticism extraversion, psychoticism are the personality traits are given more importance in the study. The data was treated statistical by employing t-test to determine the significance difference of the personality characteristics between athlete and non-athlete.

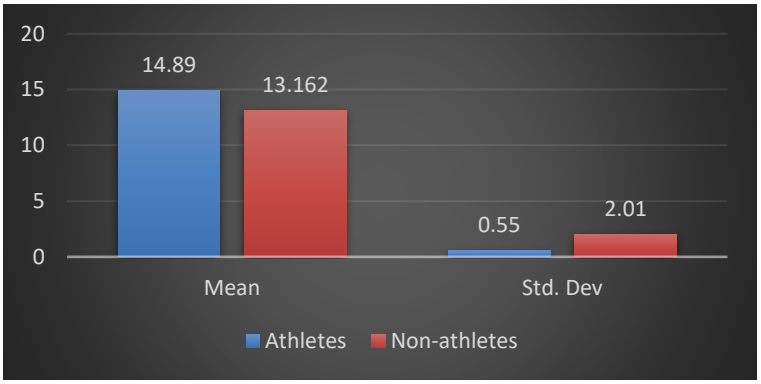
Result and discussion

The present study deals with the comparison of Personality traits among Athletes and Non athletes in respect to neuroticism, extraversion and Psychoticism.

Table shows the significant difference of personality characteristics between athletes and non athletes

SL.No.	Sports Persons	Number	Mean	Std.Dev	t-value
1.	Athletes	20	14.89	0.55	3.75
2.	Non Athletes	20	13.162	2.01	

Graph shows the significant difference of personality characteristics between athlete and non-athletes



The table and graph shows that the athletes are good personality Traits compare to non-athletes because the athletes are self-reliant, highly motivated to achieve the high level of performance. Athletes performances are depending upon their own talented and skill but non athletes are from foot-ball, basket-ball and hand ball and they have to depend upon their team effort to win the competitions. Hence non athletes will differ from each other.

Conclusions

It is concluded that athletes are having good personality traits compare to non-athletes. It is recommended that Coaches and trainers must give psychological training to sports persons to enhance the sports performance.

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ROLE OF YOGA DURING THE PANDEMIC

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Abstract : Yoga is a word that became popular across the world in the last few years. Yoga is not only beneficial for the body but also for the mind. It helps to improve blood flow and helps in building mind clarity. For ages, yoga was known to be beneficial for our physical & mental health. It not only help us to stay calm but also help us to lose weight.

Introduction

Traditional Indian health practices such as Yoga, Siddha, Ayurveda and homeopathy have been known to prevent, treat and control several diseases. These practices are 5000 years old and have been cited in ancient Indian literature. Yoga is one of the widely accepted and structured lifestyle practices which promotes the integration of the mind, body and soul. These practices are known to have a strong influence on the psychology and immune system .

The pandemic has led to a substantial loss of human lives and has created unprecedented challenges for the public health system, not just in India, but across the world. The fear of this ever-mutating virus has kept many of us indoors. This forced confinement has increased the stress on our bodies and minds.

Our way of life has changed, most likely, forever. Across the world, yoga has come to be recognized as an effective tool in improving health, which, in turn, helps maintain an all-important work-life balance. Today, yoga has gained an enormous following globally and could well be considered one of the pillars of India's soft power.

Recent research on healthcare professionals has shown a significant improvement in personal accomplishment, depression, anxiety, stress, perceived resilience and compassion by practice of Yoga.

Yoga, which originated in India and has been part of the Indian civilisation for millennia, has been a practice that aligns our mind, body and spirit, and enhances mental clarity. It is an effective tool to reduce stress and improve motor functions, which, in turn, helps keep various health problems at bay.

Yoga is a word that became popular across the world in the last few years. Yoga is not only beneficial for the body but also for the mind. It helps to improve blood flow and helps in building mind clarity. For ages, yoga was known to be beneficial for our physical & mental health. It not only help us to stay calm but also help us to lose weight.

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The pandemic has led to a substantial loss of human lives and has created unprecedented challenges for the public health system, not just in India, but across the world. The fear of this ever-mutating virus has kept many of us indoors. This forced confinement has increased the stress on our bodies and minds.

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YOGA DURING THE PANDEMIC

This public health crisis has brought to the fore the importance of strengthening our immune systems. For this, we need to adopt a healthy lifestyle. Studies suggest that yoga contributes to improving the immune system since it is a combination of physical exercise, controlled breathing and mental concentration — all of which are known to have health benefits. Among the many

To live through this lockdown & pandemic period, yoga is the best thing to adopt as a lifestyle habit. It helps us build a strong physical, mental and spiritual health system. When combined with breathing and meditation, it acts as the best element to take care of our mind, body and soul.

There are different forms of yoga that can help us to stay physically strong and mentally balanced. It could also be something you can motivate others in your family & social circle to do, as it could help them get through these times easily & healthily. Just like a normal walk in the park or 30 minutes of hard-core gym exercising, Yoga brings its own flavor and benefits to the table, which can be performed by people of all ages, and provides you with a holistic sense of health, which is especially required during these times.

Yoga *asanas*, *shavasana* and *sasankasana* reduce stress which, many practitioners believe, increases the efficiency of the immune system. Breathing techniqueslike*pranayama* improvethefunctioningofthe respiratory system. *Trikonasana* improves blood circulation which benefits all our org

Several medical practitioners and experts have suggested that those suffering from mild symptoms of Covid-19 and who have been advised to isolate at home, could benefit from practicing yoga *asanas* and breathing exercises, albeit with caution.

As the virus directly affects the lungs, it is imperative to strengthen the respiratory system. Practicing yoga is also advised to those who have recovered from the virus. Yogic breathing, beginner-level yoga *asanas* and meditation bring mental peace, a vital factor in the recovery process for those who have had the traumatic experience of contracting Covid-19. Apart from these, modified breathing techniques and yoga poses recommended by experts can help reduce fatigue and slowly restore energy levels among Covid-19 patients who are on the mend.

Continuous anxiety or stress can manifest many health conditions such as high blood pressure, muscle tension, breathing issues, etc. Stress is the element that triggers our sympathetic nervous system causing all these health issues and, in such situations, yoga can help us to stay calm. The posture and asanas of yoga help us to reduce muscle tension, joint issues and relax our sympathetic system, resulting in a relaxed mind. There are a lot of yoga poses which help us to manage our blood pressure level and anxiety. Yoga also teaches us to regulate our breath, which can make a person feel relaxed and at peace.

Some Yoga practices which are a part of the Common Yoga Protocol have been described to successfully decrease stress and anxiety levels, and have presented other benefits as well. These practices include: Anulom Vilom Pranayama (alternate nostril breathing), Bhramhari Pranayama and meditation. Practices like Kapalbhati (forceful exhalation by contracting the abdominal muscles) have been found useful to purify the frontal air sinuses and also aid to overcome cough disorders which maintains the health of respiratory tract and boosts immunity.

Along with the above-mentioned Yoga practices, certain Asanas, if practiced under supervision, have also been shown to relieve stress.

This includes Sasankasana (hareposture), Bhujangasana (cobraposture), Makrasana (crocodile posture) and Setubandhasana (bridge posture). Most of these constitute a part of the

Common Yoga Protocol practiced on International Yoga Day. The practice of some of these protocols at workplaces/offices can enable risk reduction for COVID-19.

Children can also benefit from yoga. As many are facing mental stress due to isolation and anxiety in an unpredictable school year, yoga can be a useful coping method. Hence, I appeal to all the parents and teachers to motivate young children to practice yoga in their daily lives. Being a country with the largest population of young people, we must make significant efforts to help them navigate through the adverse effects of the pandemic-induced disruption.

Parents and teachers can and should motivate children to practice yoga. This will help improve physical flexibility and enhance concentration in these challenging times.

Our way of life has changed, most likely, forever. Across the world, yoga has come to be recognized as an effective tool in improving health, which, in turn, helps maintain an all-important work-life balance. Today, yoga has gained an enormous following globally and could well be considered one of the pillars of India's soft power.

Recent research on healthcare professionals has shown a significant improvement in personal accomplishment, depression, anxiety, stress, perceived resilience and compassion by practice of Yoga.

CONCLUSSION

The Common Yoga Protocol was proposed by the Indian government for International Yoga Day. This Protocol includes all the aspects of Yoga practice, for instance postures (*Asanas),* breathing techniques (*Paranayama)* and meditation (*Dhyana*) . Yoga has been shown to exert health promoting effects by influencing the neuro-psycho-immune capacity through the improvement of psychological balance. Therefore, the Common Yoga Protocol can be universally adopted as a recourse to modify the lifestyle of every age group and to provide mental and physical health benefits during the pandemic outbreak. Thus, we advocate the practice of the Common Yoga Protocol for risk reduction of COVID-19, as it may be useful for the enhancement of immunity and to combat anxiety, glucose, hypertension and stress induced by the pandemic.

Based on the current evidence, Yoga practice can reduce the risks of co morbid conditions and strengthen the immune system by relieving stress and anxiety or directly improving immune markers or both. Yoga can be employed at home and workplaces alike.

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EFFECT OF PHYSICAL ACTIVITY FOR DEVELOPMENT OF PHYSICAL FITNESS AMONG SECONDARY SCHOOL GIRLS CHILDREN

Dr. SAKPAL HOOVANNA♣

Abstract : Regular Physical activity is important for all Children's in Schools. The Objective of the present study is to find out the Effect of Physical Activity for Development of Physical Fitness among Secondary School Girls Children. It is hypothesized that there will be effect of Physical activity for development of Physical fitness among Secondary School Girls Children. The sample for the Study consists of 40 Secondary School Girls Children of Grade 8th, 9th and 10th between the age group of 12 to 15 Years out of 20 children are experimental group and 20 are Control group. Physical activities such as Running, Jumping, Throwing and playing sports and games were given to experimental group apart from regular physical education classes of calisthenics exercises for 8 weeks on alternate days per week and control group were attended general physical education class on alternate but no special training were given to improve the physical fitness. Pre Test and Post Test were conducted in the physical fitness item Standing Broad Jump. The Results of the Study shows due to the physical activity programme the Secondary School Girls Children experimental group improved a lot in the Physical fitness in Physical Test compare to control group. Regular physical activity can help children to improve the Physical fitness, build strong bones and muscles, control weight, and reduce symptoms of anxiety and depression. It is concluded that physical exercises promote Physical fitness among Secondary School Girls Children. Hence the regular physical activity must be included in the physical education programmes in the Schools. Schools are in a unique position to help students attain the Physical education classes of daily physical activity to promote the physical fitness and good health.

Keywords: Physical activity, Physical fitness, Running, Jumping, Throwing etc.

Introduction

Physical Education is focused towards the participant learning a new skill. Often this will be completed over a sequence of planned lessons to help establish a new skill and develop a technique further. For example, in a tennis lesson a child may learn the forehand stroke over two or three weeks through a mixture of different activities.

Physical Activity is a broad term used to describe bodily movement. Therefore, this will include PE and School Sport but will also include less formal activities such as walking to school, going on a bike ride with the family or jumping on the trampoline in the garden.

School Sport is also Physical Activity but will include more extra-curricular activities. For example, an inter-school competition between local schools. In the UK, not every child has to attend an event but a strong sporting curriculum will allow every child in the school the opportunity to attend at least one event per year. This differs from Physical Education in the variation of its goal. School Sport is the process of getting children involved in sport, this may be a one-off event or a repeating extra-curricular activity. It does not necessarily have to focus on learning a new skill but often will.

Fitness is defined as the quality or state of being fit and healthy. Around 1950, perhaps consistent with the Industrial Revolution and the treatise of World War II, the term "fitness"

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increased in western vernacular by a factor of ten. The modern definition of fitness describes either a person or machine's ability to perform a specific function or a holistic definition of human adaptability to cope with various situations. This has led to an interrelation of human fitness and physical attractiveness that has mobilized global fitness and fitness equipment industries. Regarding specific function, fitness is attributed to persons who possess significant aerobic or anaerobic ability (i.e., endurance or strength). A well-rounded fitness program improves a person in all aspects of fitness compared to practicing only one, such as only cardio/respiratory or only weight training.

A comprehensive fitness program tailored to an individual typically focuses on one or more specific skills, and on age- or health-related needs such as bone health. Many sources also cite mental, social and emotional health as an important part of overall fitness. This is often presented in textbooks as a triangle made up of three points, which represent physical, emotional, and mental fitness. Physical fitness has been shown to have benefits in preventing ill health and assisting recovery from injury or illness. Along with the physical health benefits of fitness, it has also been shown to have a positive impact on mental health as well by assisting in treating anxiety and depression. Physical fitness can also prevent or treat many other chronic health conditions brought on by unhealthy lifestyle or aging as well and has been listed frequently as one of the most popular and advantageous self-care therapies. Working out can also help some people sleep better by building up sleeping pressure and possibly alleviate some mood disorders in certain individuals.

Objectives of the study

The Objective of the present study is to find out the Effect of Physical Activity for Development of Physical Fitness among Secondary School Girls Children. It is hypothesized that there will be effect of Physical activity for development of Physical fitness among Secondary School Girls Children.

Methodology

The sample for the Study consists of 40 Secondary School Girls Children of Grade 8th , 9th and 10th between the age group of 12 to 15 Years out of 20 Girls children are experimental group and 20 are Control group. Physical activities such as Running, Jumping, Throwing and playing sports and games were given to experimental group apart from regular physical education classes of calisthenics exercises for 8 weeks on alternate days per week and control group were attended general physical education class on alternate but no special training were given to improve the physical fitness.

Results and Discussion

The Results of the Study shows due to the physical activity programme the Secondary School Girls Children experimental group improved a lot in the Physical fitness in Physical Test compare to control group.

Table I: Mean values of Standing Broad Jump Test between experimental and control groups of Secondary School Girls Children

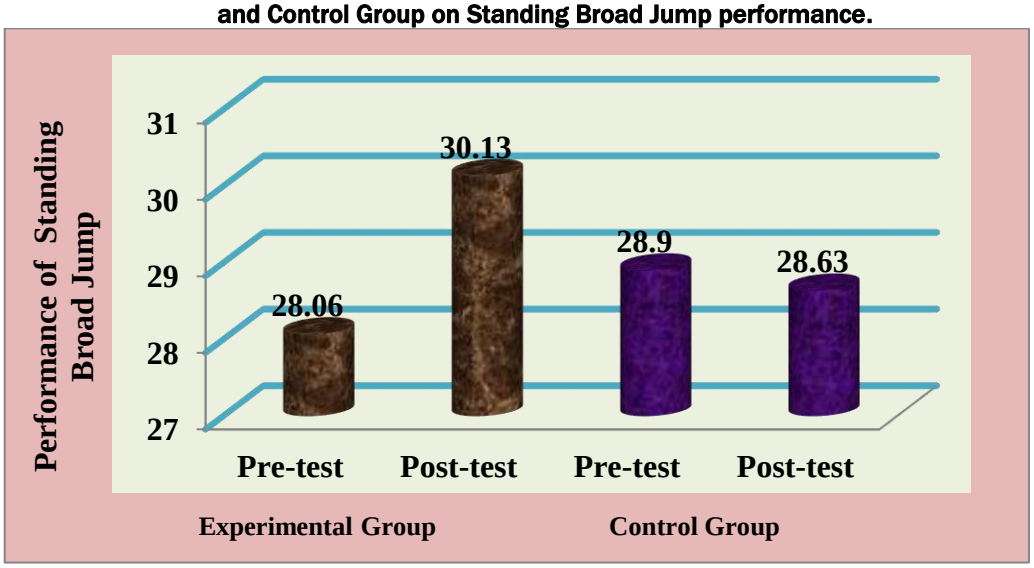
Variable	Groups	Test	N	Mean	SD	t- Value
Standing Broad Jump	Experimental Group	Pre-test	10	28.06	10.017	13.03*
		Post-test	10	30.13	10.45	
	Control Group	Pre-test	10	28.90	11.20	1.49
		Post-test	10	28.63	10.58	

*The level of significant 0.05=Table value =2.04

Table No 1. Indicates that't'- value is more than the table value that is 2.04, hence it is significant.

The pre-test mean value is 28.06 and the post-test mean value 30.13. The post-test mean value is less than pre-test mean value. It shows significant improvement in the Standing Broad Jump performance of School Girls Students owing to the eight weeks Physical Activity training. The pre-test mean value is 28.90 and the Post-test mean value 28.64. The post-test mean value is more than the pre-test mean value. It is shows no improvement in the Standing Broad Jump performance of Secondary School Girls Children subjects control group did not undergo any kind of training Programme the same as displayed in the figure.

Figure indicates the Pre-test and Post–test for Physical activity training Experimental Group and Control Group on Standing Broad Jump performance.



The above figure1 Indicates that the post test values of Experimental group significantly improved the performance of Standing Broad Jump and also the post-test values of Standing Broad Jump were less than the pre- test values due to 8 weeks of Physical activity training. The Control group pre- test and post- test performance of Standing Broad Jump shows no improvement.

Conclusion

Regular physical activity can help children to improve the Physical fitness, build strong bones and muscles, control weight, and reduce symptoms of anxiety and depression. It is concluded that physical activity promotes Physical fitness among Secondary School Girls Children. Hence the regular physical activity must be included in the physical education programs in the Schools. Schools are in a unique position to help students attain the Physical education classes of daily physical activity to promote the physical fitness and good health. Researcher has also observed that there are improvements in leadership qualities on positive side at the early ages. After the research we have also found that physical activity has also significantly improved their discipline and social behaviour. The flow of oxygen to the brain is increased. The number of brain neurotransmitters isincreased, which assists the ability to focus, concentrate, learn, remember and handle stress. The number of brain-derived neurotrophies is increased, which assures the survival of neurons in areas of the brain that are responsible for learning, memory and higher thinking. Physical activity is one of the best ways children can improve their health. Aim for at least one hour of activity daily, including aerobic, muscle-strengthening, and bone-strengthening exercises. Aside from health benefits, the children will likely do better in school, too.

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THE EFFECT OF MEDITATION ON SELECTED PSYCHO-PHYSIOLOGICAL VARIABLE OF SPORTS WOMEN

♣SANGEETA HULLUR & Prof. D.M. JYOTI♦

Abstract : The purpose of the study was to find out the "The Effect of Meditation on selected psycho-physiological variable (Systole and Diastolic blood pressure).Of the sports women." The age group of the subject ranged from 18 to 25 years sports women. The data collected was 12 weeks in Karnataka state vijaypuradeistic.The investigator will explain the purpose, nature, importance of the study. Further the role of the subjects during the experimentation and the Testing procedure also explained to them in detail. The psycho- physiological variable conditions of the subjects will assess by the qualified medical practitioner and all the subject will healthy and normal. They will request to co-operate and participate actively.

Keywords: Meditation on selected psycho-physiological variables.

INTRODUCTION

Meditation originally was meant to help deepen understanding of the sacred and mystical forces of life. These days; meditation is commonly used for relaxation and stress reduction. Meditation is considered a type of mind – body complementary medicine. Meditation produces a deep state of relaxation and a tranquil mind. During meditation, the focus your attention and eliminate the stream of jumbled thoughts that may be crowding your mind and causing stress. This process may result in enhanced physical and emotional well-being.Meditation is an excellent way to unwind after an eventful day. Life can at times be stressful, triggered by various factors such as work, family and life in general. Examples of such activity are exercises like stationary bike riding or walking. It is a good activity for fat loss when done in the right amounts but highly catabolic if done in excess.

There are different ways to meditate, and since it's such a personal practice there are probably more than any of us know about. There are a couple that are usually focused on heavily insist scientific research, though. These are focused-attention, or mindful meditation, which is where you focus on one specific thing it could be your breathing, a sensation in your body or a particular object outside of you. The point of this type of meditation is to focus strongly on one point and continually bring your attention back to that focal point when it wanders.The other type of meditation that's often used in research is open-monitoring meditation. This is where you pay attention to all of the things happening around the simply notice everything without reacting.

Statement of The Problem

The Effect of Meditation on selected Psycho- PhysiologicalVariables of Sports women.

Objectives

- To find out the effect of meditation
- To investigate the effect of meditation on selected psycho-physiological Variables of sports women.
- To assess the difference between meditation and with control on psycho-physiologicalVariables of bloodpressure of sports women.

Hypothesis

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- There would be a significant positive effect of Meditation selected Psycho-Physiological Variables blood pressure of Sports women"
- There would be significant difference in Meditation and psycho-Physiological Variables of Sports women Experimental Group then the Control Group.

Limitations

- The change in climatic conditions such as temperature, atmospheric pressure humidity, act. During the training as testing period could not be controlled. By the Research their influence on the results of the study was considered as one of the limitations.
- The daily routine work of the subjects influenced Results. Hence, this was considered as limitation.
- The general mood, environmental factor and performance in the test by the subject was recognized as limitation of the study due to varied social, cultural and environmental factors were not taken into consideration.
- No motivational technique was used for the collection of data.
- The study was limited to meditation on psycho- physiological Variables of sports women.

Delimitation

- The present was study meditation on psycho- physiological Variables of sports women
- The study was delimited to the subject were the between the 18 to 25 years.

Significance of The Study

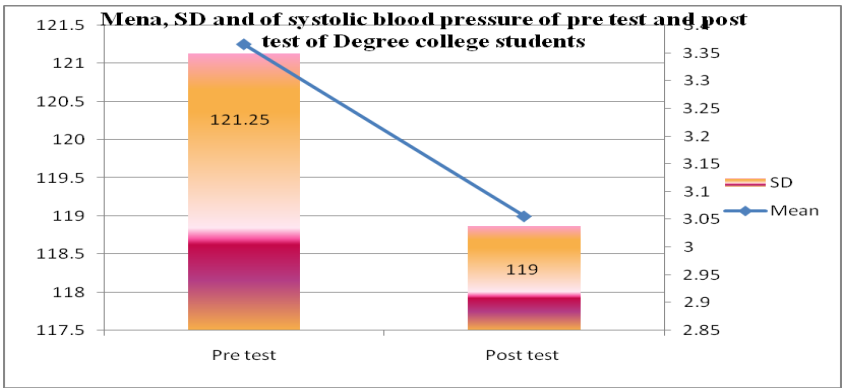
- The study was significant in meditation on psycho- physiological variables of sports women
- The study was significant in determining different training schedules of sports women

METHODOLOGY

The purpose of the study was to find out the" Effect of Meditation and psycho-Physiological Variable of sports women "The age Group of the subjects ranged from 18 to 25 years. Women the investigator was explaining the purpose, nature, studying in degree collage Vijayapura.Systolic blood pressure it is the maximum blood pressure. This occurs during the systole of the heart(range 100 to 120 mm Hg.)Diastolic blood pressure it is minimum pressure. It is occurring during diastole of heart (range 60 to 80 mm Hg)Pulse pressure is the difference between systolic and diastolic blood pressure (it is nearly 40 mm Hg)Samples 80, Experimental group-40 and Control GroupTools Used Self- Confidence Questionnaire, Developed by – Prof. M. Basavanna.

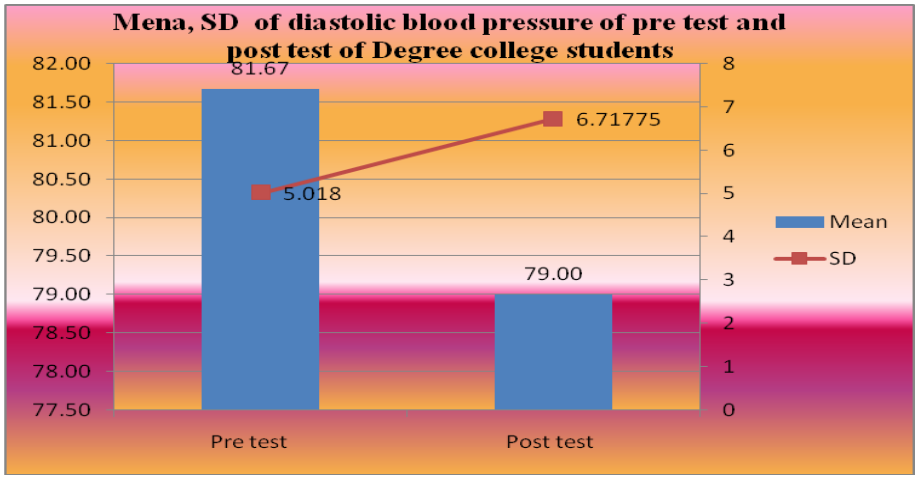
Mena, SD and t-value of systolic blood pressure of pre- test and post test of Degree college students.

Type of test	Mean	SD	t-value	Df	p-value	Remark
Pre test	121.2500	3.34932	2.467	39	.018	S
Post test	119.0000	3.03822				



Mena, SD and t-value of diastolic blood pressure of pre-test and post test of Degree college students.

Type of test	Mean	SD	t-value	df	p-value	Remark
Pre test	81. 6750	5.0180	2.329	39	.025	S
Post test	79.0000	6.71775				



CONCLUSION

The basis of the result the following conclusions were drawn. The 12 weeks effect of meditation on selected psycho-physiological of sports women's improve the psycho-physiological on blood presser of subject for the degree college students. Regular practicesof meditation help toImprove the function the human body that is physiological verbless. Regular practices meditation physiological factors which are more powerful than physiological factors meditation help to improving the physiological factors.Regular practices of meditation helpto improve the spiritual factors.

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MOTIVATIONAL FACTORS OF SPORTS PARTICIPATION AT SCHOOL LEVEL – A SYSTEMATIC STUDY

♣SHANKARA MURTHY.K.M & RAVINDRA GOUDA.S.M♦

Abstract: Now a day's children's are spend more time with online than watching television. The "tipping point" between modern and traditional forms of "screen time" has been reached, with five to 15-year-olds spend a 15 hours a week with online.So, the psychological characteristics of youths are most important. The motivational factors are given a prominent role. Sports participation for school students/youths are highly necessary, who accept and are involved in sports. Most of the research reviews strongly evident that presently school children's for sports participation is highly needed. Personal interest, sports infrastructure, social status and teachers should all be aware that to participation in sport. More local sports opportunities are needed where costs are reduced. Schools and local clubs could better work together to provide more affordable local opportunities to increase children's participation in sport. So for this reason, some influencing factor is more significantly effects, here below discussed on this research.
Keyword: Motivation, Tipping point, Teacher, Sports and Participation

Introduction:

Understanding of sports as a leisure time activity and teaching individuals how to enjoy themselves by exercise and especially socializing could be a contributing factor to the spread of physical activity. Improving living conditions, employment rates, and income levels could also contribute to higher participation in physical activity.

Physical activity is important movement for sports participation. Popular ways to be active include walking, cycling, wheeling, sports, and active recreation and play, and can be done at any level of skill and for enjoyment by everybody. Yet, current global estimates show one in four adults and 81% of adolescents do not do enough physical activity. Furthermore, as countries develop economically, levels of inactivity increase and can be as high as 70%, due to changing transport patterns, increased use of technology for work and recreation, cultural values and increasing sedentary behaviors. Increased levels of physical inactivity have negative impacts on health systems, the environment, economic development, community well-being and quality of life. (WHO 2018)

Motivation is most vital role for Children's overall development. It's developing a more effective policies promoting physical activity for healthy lifestyle (Rüstem, 2020).

Motivational factors were Social Reinforcement, Fringe Benefits, Fame and Fortune, External Forces, Proving Oneself, Social Benefits, Mental Enrichment, Expression of Self, Sense of Accomplishment, and Self-enhancement.Participants who used recreational and cultural activities as their major type of physical activities were more motivated by "intrinsic" aspects. In contrast, those who participate in sports and exercise as their main type of physical activity are more motivated by "extrinsic" aspects and Close friends and family members of one's home and community have potential influence in physical activity and recreational and cultural activity participants are highly to fulfill the goal of physical activity levels. **(Rahman, Liang, Gu, Ding, &Akter, 2019)**

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According to **Wretman (2017)** school sports is influence students' interpersonal relationship, such as their attachment to school members. It focused solely on students' individual characteristics, behaviors, and perceptions. It may be that by participating in sports within and under the auspices of the school strengthens bonds with teammates/classmates and coaches/teachers. This important conceptualization, and its inherent variables, may inform future social work interventions using school sports and also supportive motivation from Policy makers, parents and teachers should all be aware that 'cost' and 'time' participation in sport. More local sports opportunities are needed where costs are reduced. Schools and local clubs could better work together to provide more affordable local opportunities to increase children's participation in sport **(Somerset & Hoare, 2018).**

Motivation is most important for both competitive sport and recreational hobbies carry equal value in regards to boosting progression in learning. Each haves different qualities and can help in a variety of ways, but it has often been the focus that competitive sports set students up better in life.

The research should focus more on understanding the relationships of children's sport engagement such as personal interest, social status, teacher support, institutional support and Sports Infrastructure, in nature, and mainly focuses on pro-social behavior, cooperation and work ethic at the expense of other important outcomes such as decision-making and problem-solving also highly motivated by school sports participation they can improve their self-confidence leadership qualities to create the good sports environment among the peer group sports is not just for fun activity it is educational setup for interactive work in education to assessing the strengths and weaknesses of pupils can help students to work together to support each other its major role in school sports participation improve the social environment in which children are growing, the school's emphasis on sports activities.

1. Personal Interest:

Sport activities are essential to promoting a good school and balance style life to provide a supportive and interactive place for students to feel comfortable and motivated to work hard and achieve more.

Personal interest in sports participation effects of characteristics every individuals "bring to" early sport involvement of the inter-school type (we suggest better skills, stronger interest in sport, more knowledge, stronger ego commitment, or greater time commitment) versus the effects of positive reinforcement of the early school sport experience remains the relatively contributions of sport socialization processes among students. (Curtis, McTeer, & White, 1999). According to M. E. Edim, & E. A. Odok, (2015). In sports participation personal interest can develop root level sports competitive sprite, it may improve during school sports and create better brotherhood among the school peer groups under given statements are more influenced for this study.

- Personal interest regulates school athletes were in their sports, their perceptions of their performance, and their intention to continue to participate in sport in the future.
- Students should endeavor to take home the crusade of sports participation to further foster their interpersonal relationship with others around their neighborhood and community.
- The physical education teachers, who are the custodians of sports in these schools, should make sure that every student takes active part in sports during training sessions.
- More regular inter-school sport competition programmers should be encourage the foster Learning activities provide opportunities to attain learning outcomes.

- Assessments are fair in case anybody weak in skill learning to give them supportive intended training programs and special attention on weaker group.
- Be conscious of students' confidence levels. Provide small opportunities for success early. Be constructive and encouraging when providing feedback.

2. Social Status :

Sport is a social phenomenon as well as it is individual and it is also an important cultural factor that makes human groups a nation. Beside other ways and tools, sports and activities related to sports have had influence in the endurance of societies. Sports provides individual to integrate into social groups and society, it is also an important factor for determining their status and position. For this reason, taking the socializing power and social prestige of the sports into consideration, it is considered that the habit of doing sports in childhood and making sports a living style contributes positively to the physical and psychosocial development of the individuals as well as social status. **(Hikmet & A. Azmi, 2018).**

Social status is considered universally important because it influences how people think and behave. "Establishing that desire for status is a fundamental human motive matters, (Anderson 2015). For the matter influence to sports participation and motivating the students at school level.

- Social status is highly motivated thing that makes new friends and builds their social circle outside school. An important part of playing in a team is accepting discipline.
- Great opportunities for networking and contributes to higher levels of self-esteem and self-worth.
- The most important to sports participation determining the status and position, Socializing power and social prestige of the sports into consideration.

3. Sports Infrastructure:

Irawan&Prasetyo, (2019) says that in schools the existence of facilities, complete facilities, and the existence of infrastructure, quality and of care. It is necessary to improve and standardize the maintenance of sports infrastructure and facilities to the realization of standardization and equitable distribution of sports infrastructure in each high school.

Sports Infrastructure plays an important role in improving the attendance of students too. For this same reason, it can be said that investments in school infrastructure play an enabling role in solving many access-related problems of students to the school system, thereby giving boost to their academic performance too.

- The school has specific coaches for different sports who are available during post school and school hours.
- Regular game periods are provided to the students of all classes and they are encouraged to practice indoor and outdoor games.
- Special summer camps and adventure camps are also organized to expose students to team building and sports activities. Annual sports meet is also held to celebrate the spirit of sports.
- All the sports activities are conducted by trained and qualified coaches, many of whom have represented their states or country. The students are encouraged and motivated to take up sports and physical activities and are trained by the experts.
- A structured sports curriculum is followed that develops students' skill in a particular sport and enables him to perform and excel.

4. Teachers Support:

Physical education teachers are daily witnesses to peer-group media talk, and to responses to media events on the playing field and in the sports hall. This provides a rich and

diverse environment for further work on the ways in which young people's media sport experiences influence their everyday response to active sports participation.

Teacher is a role model for students in school community. Teachers can make fantastic role to facilitate personal and professional growth, and in a high school sports setting, teachers/coaches are the ultimate mentors for students' Here mentioned factors can be reinforced by motivational strategies to enhance teacher cooperation and compliance, thereby potentially reducing drop-out rates below the statements are strongly proved i.e.:

- Ability to teach every student and find their specific area of interest
- Good communication skills to get comfortable and connect with each student.
- Teacher can help athletes to develop their full potential strength relative to their sport.
- Patience to get friendly with the students and provide better coaching and Opportunity to positively influence students and help them for sporting activities.
- Teacher important to highlight that these skills and competencies are influenced and developed in interaction with attitudes, beliefs, and mindsets as well as character and values.

Finally, I concluded that physical competence can be healthy when it provides feedback to kids about their performance and improvement, when winning is not the sole or primary objective, and when students get to learn about themselves under challenging situations." Untimely motivation aspects are too important in sports for child mentally, physically, emotional balance and overall development in school sports participation.

All above Study analyzed that Motivational factors in School sports identify the reinforced by motivational strategies to enhance teacher cooperation, personal interest, social status, and Sports Infrastructure Participating in high school sports can be incredibly rewarding and memorable. Being a student-athlete, however, isn't all fun and games. It can be challenging to balance the physical and mental demands of athletics and academics study finds that something positive to say to every athlete at every practice. This satisfies the athlete's need for attention, recognition and appreciation.

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EFFECT OF YOGA TRAINING ON SELECTED PHYSICAL AND PHYSIOLOGICAL VARIABLES AMONG MALE FOOTBALL PLAYER

Dr. SHOBHA. WALI♣

Abstract : The determination of the education was to discovery out the Effect of Yoga Training on Chosen Physical and Physiological Variables among male Football Players. To attain the drive of the present study, to abridge the study, thirty Male from The Government Degree College, Vijayapur, were randomly selected as subjects and their age were between 18 to 25 years. The study was expressed as a true random group project, containing of a pre-test and post-test. The subjects (N=30) were randomly allocated to two equal groups of fifteen Male each. The groups were assigned as Yoga Training group and control group in an equal manner. The group I experienced Yoga Training group II acted as a control group. The experimental group participated the training for a period of twelve weeks to find out the outcome of the training posts and the control group did not donated in any training programme. The variableto be used in the present study was collected from all subjects beforehand they have to extravagance with the respective actions. It was expected as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as variables by the experimental groups. To test the obtainedresults on variables, level of significance 0.05 was chosen and careful as sufficient for the study. The Yoga Training group shaped significant development in Physical and Physiological variables among Male Football players. In the control group the obtained't' value on all thevariables were failed to reach the significant level.

Keywords; Effect of Aerobic, Speed, cardio respiratory &Agility, Football Male

INTRODUCTION

Sports, the word are derived from the Latin as deported, which survive in the Roman language in the sense of "to amuse oneself". In the early twelfth century it is attested in Spanish as departure or se deported. ("French it appears in the same sense in the fourth century as disport") was format from the verb, and in the fifteenth century English the shorten from "sport" which meant the free time, relaxation from the more serious claims of life, merry entertainment games.

Sports are one of the striking features of twelfth century life, as evidenced by the variety and popularity of sporting events in the most diverse parts of the world. This new phenomenon in society has attached the interest if researchers in many fields, and ever more urgently calls upon historians to contribute to a deeper understanding of sport through the knowledge of the past.

Sports have become an important part of nation's culture as well as of other culture throughout the world. Sports pervade society to such an extent that it has been described by many as a microcosm of society. As such, sports reflect characteristics of society.

METHODOLOGY

The purpose of the study was to find out the Effect of Yoga Training on Selected Physical and Physiological Variables among Male Football Players. To achieve the purpose of the present study, to facilitate the study, thirty Male from The Government Degree College, Vijayapur, were randomly selected as subjects and their age were between 18 to 25 years. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects

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(N=30) were randomly assigned to two equal groups of fifteen Male each. The groups were assigned as Yoga Training group and control group in an equivalent manner. The group I underwent Yoga Training group II acted as a control group. The experimental group participated the training for a period of twelve weeks to find out the outcome of the training packages and the control group did not participated in any training programme. The variable to be used in the present study was collected from all subjects before they have to treat with the respective treatments. It was assumed as pre-test. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Paired t- test was applied to test the significance of mean.

SELECTION OF VARIABLES & TESTS MEASURES

S.No	Physical Variables	Test items	Unit of Measurement
1	Speed	50 Yard dash	Seconds
2	Agility	T-test	Seconds
3	Cardio Respiratory Endurance	Cooper 12min run and walk	Meters

S.No	Physiological Variables	Test Items	Unit of Measurement
1	Resting heart rate	Manual	counts
2	Breath holding time	Stop watch	Seconds

Table- 1 Analysis of 't' Ratio for the Pre and Post-tests of Control and Experimental Group on Speed

Variable	Group	Mean		SD		Sd Error	Df	t - ratio
		Pre	Post	Pre	Post			
Speed	Control	6.98	7.04	0.23	0.21	0.07	14	0.88
	Experimental	6.98	6.75	0.30	0.28	0.10		**2.26***

*Significance at .05 level of confidence.

The Table - 1 shows that the mean values of pre-test and post-test of control group on speed were 6.98 and 7.04 respectively. The obtained „t" ratio was 0.88, since the obtained „t" ratio was less than the required table value of 2.15 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post- test of experimental groups on speed were 6.98 and 6.75 respectively. The obtained „t" ratio was 2.26 since the obtained „t" ratio was greater than the required table value of 2.15 for significance at 0.05 level with 14 degrees of freedom it was found to be statisticallySignificant. The result of the study showed that there was a significant difference between control group and experimental group in speed. It may be concluded from the result of the study that experimental group improved in speed due to six weeks of yoga training.

Fig - 1: Bar Diagram shows the mean values of Pre and Post-tests of Control and Experimental Group on Speed

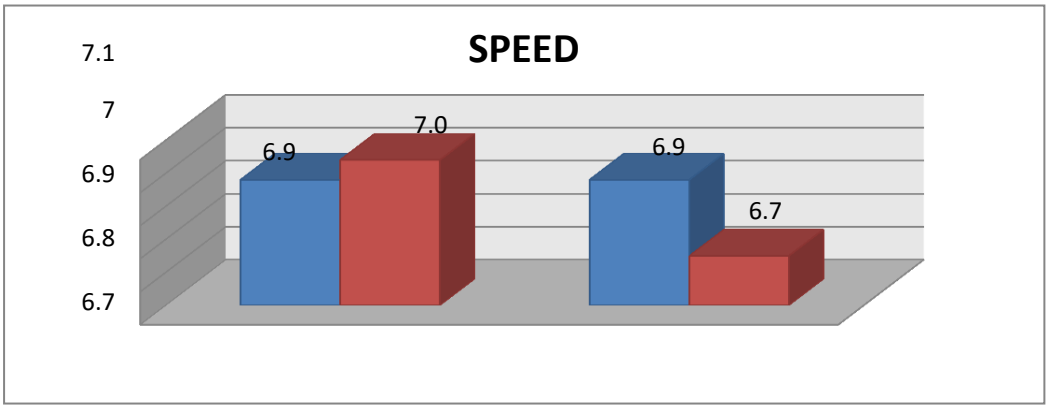

Table – 2 :Analysis of 't' Ratio for the Pre and Post-tests of Control and Experimental Group on Endurance

Variable	Group	Mean		SD		Sd Error	Df	tratio
		Pre	Post	Pre	Post			
Endurance	Control	2697	2693	142.48	146.99	30.95	14	0.13
	Experimental	2694	2763	141.78	103.51	30.71		**2.23***

*Significance at .05 level of confidence.

The Table - 2 shows that the mean values of pre-test and post-test of control group on endurance were 2697 and 2693 respectively. The obtained „t" ratio was 0.13 since the obtained „t" ratio was less than the required table value of 2.15 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of experimental groups on endurance were 2694 and 2763 respectively. The obtained „t" ratio was 2.23 since the obtained „t" ratio was greater than the required table.

Value of 2.15 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in endurance. It may be concluded from the result of the study that experimental group improved in endurance due to six weeks of yoga training.

Fig - 2: Bar diagram shows the mean values of Pre and Post-tests of Control and Experimental Group on Endurance

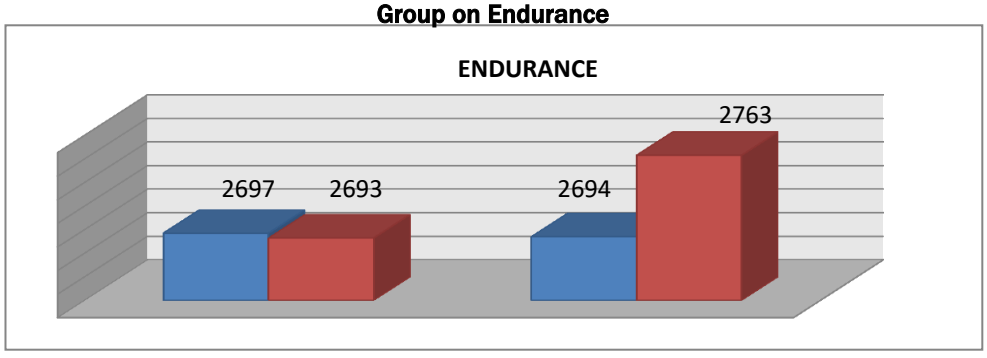

Table : 3 - Analysis of 't' Ratio for the Pre and Post-tests of Control and Experimental Group on Agility

Variable	Group	Mean		SD		Sd Error	Df	t ratio
		Pre	Post	Pre	Post			
Agility	Control	11.79	11.90	0.45	0.82	0.27	14	0.40
	Experimental	11.92	11.47	0.69	0.74	0.12		**3.77***

*Significance at .05 level of confidence.

The Table.3 shows that the mean values of pre-test and post-test of control group on agility were 11.79 and 11.90 respectively. The obtained „t" ratio was 0.40 since the obtained "t" ratio was less than the required table value of 2.15 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of experimental groups on agility were 11.92 and 11.47 respective obtained „t" ratio was 3.77 since the obtained „t" ratio was greater than the required table value of 2.15 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in agility. It may be concluded from the result of the study that experimental group improved in agility due to six weeks of yoga training

Table - 4 :Analysisof't' Ratio for the Pre and Post-test of Control and Experimental Group on Resting Heart Rate

Variable	Group	Mean		SD		Sd Error	df	t– ratio
		Pre	Post	Pre	Post			
Resting Heart Rate	Control	68.27	68.33	1.87	2.13	0.21	14	0.32
	Experimental	68.60	68.13	1.64	1.36	0.17		**2.82***

*Significance at .05 level of confidence.

The Table - 4 shows that the mean values of pre-test and post-test of control group on resting heart rate were 68.27 and 68.33 respectively. The obtained „t" ratio was 0.32 since the obtained „t" ratio was less than the required table value of 2.15 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of experimental groups on resting heart rate were 68.60 and 68.13 Respectively. The obtained „t" ratio was 2.82 since the obtained „t" ratio was greater than the required table value of 2.15 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in resting heart rate. It may be concluded from the result of the study that experimental group improved in resting heart rate due to six weeks of aerobic training

Table – 5 :Analysis of 't' Ratio for the Pre-test and Post-test of Control Group and Experimental Group on Breath Holding Time

Variable	Group	Mean		SD		Sd Error	df	t – ratio
		Pre	Post	Pre	Post			
Breath Holding Time	Control	51.33	51.27	8.04	8.04	0.07	14	1.00
	Experimental	51.40	52	3.16	3.30	0.25		2.35*

*Significance at .05 level of confidence.

The Table- 5 shows that the mean values of pre-test and post-test of control group on breath holding time were 51.33 and 51.27 respectively. The obtained „t" ratio was 1.00 since the obtained „t" ratio was less than the required table value of 2.15 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of experimental groups on breath holding time were 51.40 and 52 respectively. The obtained „t" ratio was 2.35 since the obtained „t" ratio was greater than the required table value of 2.15 for significance at 0.05 level with 14 degrees of freedom it was

found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in breath holding time. It may be concluded from the result of the study that experimental group improved in breathe holding time due to six weeks of aerobic training

CONCLUSIONS

In the light of the study undertaken certain limitations imposed by the experimental conditions the following conclusions were arrived.

1. Speed, endurance, agility, resting heart rate, breath holding time were significantly improved due to the influence of Yoga training group among school Female.
2. The Yoga training group improves resting heart rate, breath holding time, Speed, flexibility, agility greater than that of control group.

RECOMMENDATIONS

From the results of the study the following recommendations are drawn

1. The present study is recommended to the coaches, trainers and physical Educators to adopt this training to improve health related physical fitness
2. The similar study may be conducted on sports players.
3. The similar study may be conducted for women at different age group.
4. The similar study may be conducted for men at different age groups.
5. Similar research work may be attempted by using skill related physical Fitness, physiological and biochemical variables.

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EFFECT OF BRAMARY PRANAYAMA PRACTICE ON RESTING HEART RATE, BEFORE EXERCISE HEART RATE AND AFTER EXERCISE HEART RATE OF SPORTS PERSONS

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Abstract:Objectives- To study the effect of Bramary Pranayama practice on selected physiological variables of sports person. Subjects- 20 male, healthy different sports patient's volunteers in the age group of 17 to 19 years athletes selected this study. Subjects were divided randomly into two groups of 20 individuals act as subjects and control. Interventions- Bramary Pranayama training will be conducted 45 minutes daily for 6 week. Outcome Measures- Cardiovascular efficiency will be tested by using parameters like 1. Resting heart rate 2. Before exercise heart rate and 3. After exercise heart rate. **Results-**Bramary Pranayama training for six week resulted in significant different to post and pre test of physiological variables. Conclusion- Our study shows that Bramary Pranayama training Under consideration of all comparisons, the Resting Heart Rate, Before exercise heart rate and After exercise heart rate significantly decreased more in the exercising groups compared to the control groups

Keyword. Week, cardiovascular, rate, heart, physiology etc...

Introduction

Yoga practice is an ancient culture of India, Indians was using so many therapy and science that designs way of life with its various practices. It is being practiced in the form of Asana, Pranayama and Meditation etc by the practitioners in range of methods and style. So many researches found that, Pranayam practice is effect on physiology function of humans (Telles et.al.2017). Bhramari pranayama practise is a phonatory respiratory exercise, which scientifically accelerates the release of nitric oxide - a gas molecule and key biological messenger that plays a significant role in metabolic processes at the cellular level. Nitric oxide accelerates the micro circular of blood by dilatation and release of spasm of peripheral blood vessels, hence controls blood pressure. It is omnipresent; present in every cell of body. It helps in better neural transmission and enhancement of memory. It affects apoptosis, reproduction, lipolysis regulation of body metabolism and host defence. Nitric oxide also controls the hormonal secretion that inhibits prolactin, catecholamine, cortisol and insulin resistance. By this we can understand that by simple release of nitric oxide, we can control, transform and rejuvenate our body and mind and get rid of various illnesses (Taneja M K 2020). *BhrāmarīPrāṇāyāma* practice improving the pulmonary function of adolescents,*BhrāmarīPrāṇāyāma* practice effect on Slow vital capacity and Maximum Voluntary Volume. Bhramari pranayama and OM chanting are effect of pulmonary function in healthy individuals (Mooventhan AND Khode 2014).Bhramaripranayama effect of acoustic and aerodynamic parameters of voice, maximum phonation duration, glottal airflow and pressure, average fundamental frequency, and cepstral peak prominence after practice suggesting that it has an effect on voice parameters (Manjunatha et.al.2018). 6 weeks practice of Bhramari Pranayama significantly improves sleep quality and reduces perceived stress (Kumar and Venkatesh 2021). 12 week pranayama practice Effects on lung function and lactate kinetics, its

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improves anaerobic capacity of sedentary adults at intermediate altitude (Benavides-Pinzón and Torres 2917). Buteyko breathing and Bhramari pranayama are same effective exercise, it's in immediately reducing the systolic blood pressure in hypertensive patients (Sathe S 2020). Bhramari Pranayama practise Effect on state anxiety of sedentary male from Gwalior (Diwakar Pal (2016)

Methodology

Present study the "effect of Bramary Pranayama practice on selected physiological variables of sports persons".

Selection subject

20 different sports person from JS athletic sports club Bangalore age range between 17 to 19 Subjects were divided into two equal groups one group under underwent Bramary Pranayama as experimental second one divided practice any kind of yoga practice control.

Training program

The scientifically design Bramary Pranayama program was given the subject of experimental group duration of training for 6 days per week was 80 days for the subject there went respect to training underwent strictly supervision through out of the study.

Statistical procedure

The following statistical used to find the impulse of the 80 days pranayama practice effect on physiological variables to test significant for the different between pre and post the period t test was used. This using software is SPSS.

Result

Paired t-test was employed to analyze the result as the same subjects were tested before and after the Bramary Pranayama.

Table 1. Statistics analyzed of Bramarypranayampractice effect on resting heart rate performance of Male different sports persons.

		Mean	N	Std. Deviation	Std. Error Mean	T	Sig. (2-Tailed)
Pair 1	Resting Heart Rate For Pre Test	63.2000	10	3.48967	1.10353		
	Resting Heart Rate For Post Test	61.3000	10	3.86005	1.22066	-5.460	.000
Pair 2	Before Exercise Heart Rate For Pre Test	74.1000	10	10.61917	3.35807	-9.303	.000
	Before Exercise Heart Rate For Post Test	71.6000	10	10.90566	3.44867		
Pair 3	After Exercise Heart Rate For Pre Test	113.3000	10	24.15252	7.63770	-4.583	.001
	After Exercise Heart Rate For Post Test	111.2000	10	23.89700	7.55690		

Table 3. Pair 1. Result show that there is significance difference between pre test and post test of resting heart rate. Bramary pranayama training effect on resting heart rate level. we have mentioned data like Bramary pranayama training group pre test mean was 63.2000 (SD = 3.48967), after the 6week Bramary pranayama training post test we have got mean level 61.3000 (SD=3.86005). The information related to Bramary pranayama training effect resting heart rate graphically depicted in **figure 1.**

Graphical illustation of bramary pranayam effect on resting heart rate

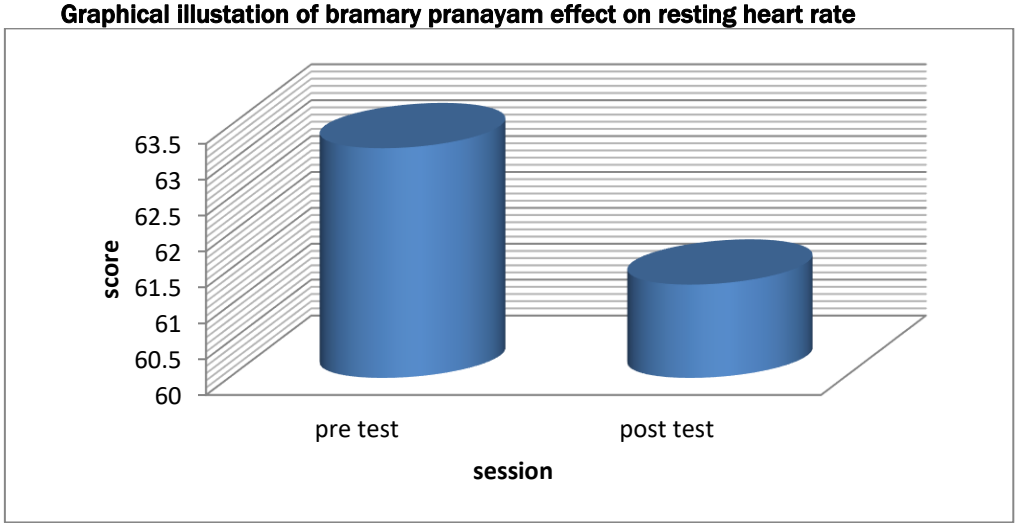


Table 1. Pair 2. Result show that there is significance difference between pre test and post test of before exercise heart rate. Bramary pranayama training effect on before exercise heart rate level. we have mentioned data like Bramary pranayama training group pre test mean was 74.1000 (SD=10.61917), after the 6week Bramary pranayama training post test we have got mean level 71.6000 (SD = 10.90566). The information related to Bramary pranayama training effect before exercise heart rate graphically depicted in **figure 2.**

Graphical illustation of bramary pranayam effect on before exercise heart rate

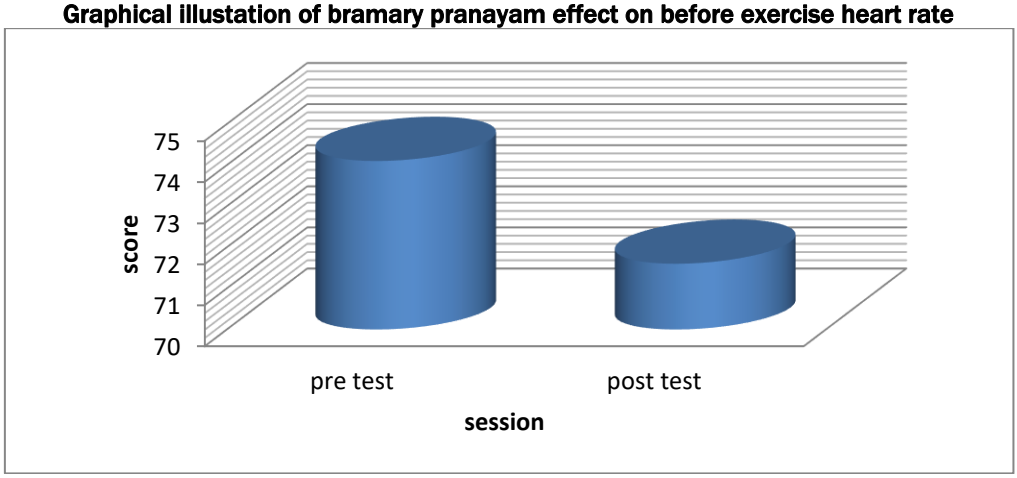
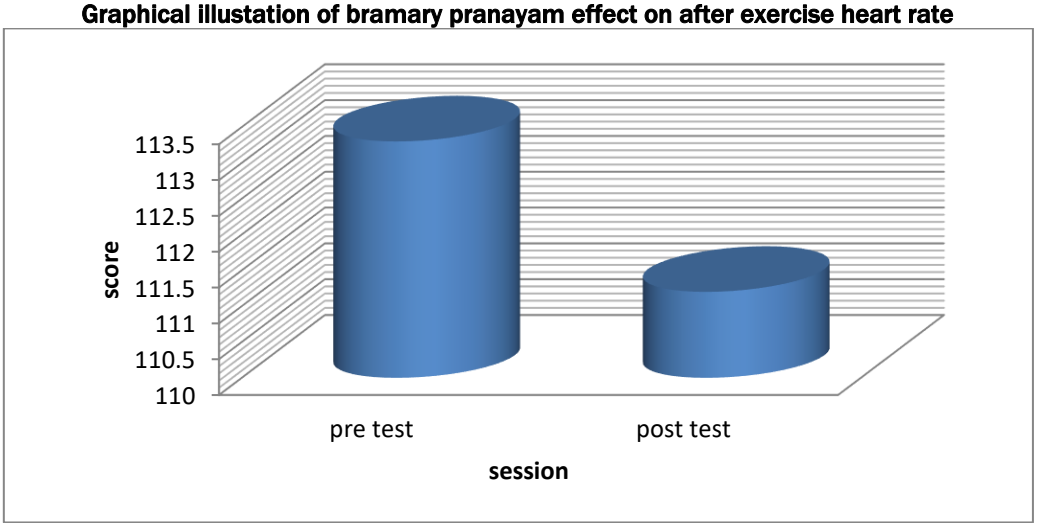


Table 1. Pair 3. Result show that there is significance difference between pre test and post test of after exercise heart rate. Bramary pranayama training effect on after exercise heart rate level. we have mentioned data like Bramary pranayama training group pre test mean was 113.3000 (SD=24.15252), after the 6week Bramary pranayama training post test we have got mean level111.2000 (SD = 23.89700). The information related to Bramary pranayama training effect after exercise heart rate graphically depicted in **figure 3.**

Graphical illustation of bramary pranayam effect on after exercise heart rate



Discussion and finding:

Practice on bramarypranayam effect on BloodPresure indices, Pulse Pressure, Mean Arterial Pressure, Rate Pressure Product and Double Product. Its significantly decreased after Bhr.p practice compared with control. Pre and Post inter group analysis also showed that significant reduction in Hart Rate and Blood pressure indices in bramarypranayamepractise group. So many research found that Bhramari Pranayama is effective in instantly cooling down the brain and making them free from the agitation, frustration, anxiety, and anger. Bhramari Pranayama is one of the best ancient methods to reduce stress, anxiety, anger, depression**Shila C et.al.**). Bhramari Pranayama practice, Immediate Effects on Resting Cardiovascular Parameters in Healthy Adolescents, *Bhramari pranayama* improves the resting cardiovascular parameters in healthy adolescents. The Heart Rate reduced significantly in bramarypranayam group, Blood Pressure indices, Pulse Pressure, Mean Arterial Pressure, Rate Pressure Product and Double Product (Kuppusamy 2016). practice of anuloma-viloma and Bhramari Pranayama effect on normal blood pressure and also to reduce the stress level, yogic Pranayama in the management of Blood pressure

Conclusions:

Pranayama practice is a type of yogic breathing exercise. Breathing is the important autonomic function that can be deliberately controlled and effect on cardiovascular functions and cardiac autonomic reactivity. This study result shows that bhramary pranayama practice effect to Resting Heart Rate, before exercise heart rate and after exercise heart rate of sports persons. Sports personas needs to cardiovascular power.

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PHYSICAL FITNESS IS AN INCREDIBLE TRUTH FOR SPORTS ACHIEVEMENT

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Abstract: Physical Fitness is ability of body to perform all day to day activities without any physical or mental stress. Physical Fitness means a state of health and well-being. This Physical Fitness is main root path all sports activities and it helps to lead the better athletic performance and Achievement. Daily Physical Activities not only builds strong muscles helps to achieve work performance of an Individual. Every Sports Person does Conditioning activities (Physical Fitness) according to their sports and games which will automatically increases the physical as well as mental capacity of an athlete which supports him to his sports performance. By keeping regularity in physical fitness activities we can not only improve the condition of our body but also our state of mind as well. This improved state of mind improves our level of confidence, Will Power, and challenges to Proves ourselves. Regular Physical Fitness Activities helps to supply oxygen to all over the body, and if a pure and fresh oxygen supplies to all over the body our body as well as mind starts work hard and helps to achieve in sports and games.

Keywords : Physical Fitness Components Endurance, Strength, flexibility, agility. Co-ordination. and Sports Performance.

Introduction:-

Physical Fitness is very important key and plays an incredible role to improve achievement of sports. Better Physical Fitness have great results in Physical and Mental development which helps to climb up to the peak of sports achievement. So the first requirement of sports achievement is a good foundation of physical fitness. Physical fitness is a key factor which directly affects on Motor quality which tells us about movement, and every athlete should grasp the practical knowledge in athlete's physical fitness training.

Physical Activity : Is a any bodily movement which produced by the contraction of the Skeletal Muscles that Increases energy expenditure above the baseline level. Physically Fitness is defined as being good physical well being and to shape good posture and making oneself for a particular sports or task.

Exercise :- Physical Activity that is planned , structured and repetitive with the purpose of developing, improving or maintaining physical fitness. Primarily Positive Effect on the Sports achievement by Physical Fitness training. The traditional athletics powers have attached great importance to the physical training, not only to the development of systematic fitness theory .

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Sport:- and games explains to a competitive activities through physical activity. Sport is also refers activities based on athleticism. These Sports activities generally governed by framed rules of particular games association to ensure fair competition and consistent adjudication of the winner. And sports and games which that aims to maintain or improve physical ability and sports skills and tries to provide enjoyment to participants and, in some cases, give entertainment to spectators too. Sports and games performance organise to use leisure time, or organise through by framed rules and regulation is to improve Athlete's Physical fitness and health.

Achievement:- Achievement is something that has been accomplished by hard work. It's a ability of a person to get success in his way. Achievement is a superior ability or a special effort to get things done successfully with a great courage. It's a heroic deed or ability to reach highest state.

Endurance:- Endurance is the Physical Ability to keep working on something difficult or Painful for a longer time. Endurance also refers to the ability of muscle to undergo continuous contraction against the repeated actions for a period of time.

The Ruthlessness:- Repeated physical activity helps to keep our heart, blood circulation, lungs function and overall helps us to keep us healthy and improve our overall physical fitness. Which very much needed to set our sports goals, and perform our best performance in the competition and to achieve something better than the last performance?

Strength:-

Strength is the maximal force of our muscles that we can apply against a load. Physical fitness Training which helps to improve muscle strength includes lifting weights otherwise increasing the resistance against the work.

Strength is also a component of Physical Fitness, and is main important source to achieve success in sports and games. Almost all the sports and games need Strength, including team sports like rugby, good strength is also very important as part of the overall physical fitness profile.

Flexibility :-

Flexibility is the ability to move muscles and joints through a full normal range of motion. Flexibility is the capacity of a joint or muscles to move through its full range of motion. It's a Flexibility is specific to a particular movement or joints. Flexibility is a specific or a particular movement or joints, and the degree of muscle's elasticity around the body.

Speed :-

Speed describes as an acceleration of muscles and joins towards movements. It is also explains about the highest rate of motion. Speed is defined as the ability of muscles to move the body in one direction as fast as possible. Speed is the ability to move all or some parts of the body as quickly as possible. The ration of the distance travelled by an object (regardless of its direction) to the time required to travel that distance. Speed is the ability to do a single movement in minimum of time.

Speed is a way of measuring how quickly something is moving or being done, or somethingmoving fast. Speed **is** the rate at which something moves, or acts for the fulfilment of objective. It's a rapidity in moving, going, traveling, proceeding, or performing, swiftness and Elasticity.

Agility:Agilityis the ability of body to be quick and graceful. It's a body's quicker and easy movement. It's a Capacity of an Individual to perform quickly and clearly for the said phenomena. Agility is defined as the ability to move nimbly with speed and ease. Agility can be defines as a it refers to mental quickness and sharpness. Agility is the power of moving the limbs quickly and easily.

Co-ordination ::Coordination is the ability to move two or more body parts under our control. And work smoothly and efficiently. In sports and games this coordination ability is needed very much

because it helps sports person should use his right muscles at the right time with proper Intensity to achieve proper ant better action.

BENEFITS OF PHYSICAL FITNESS WHICH HELPS TO ACHIVE SPORTS PERFORMANCE

A**. It helps to prevent Injuries**;

A Better Physical Fitness and development can help the athletes to prevent Injuries. And a good physical fitness is the main base of Sports Achievement. If an Athlete Keeps his body conditioned with needed physical fitness he definitely manage his injuries and increase his efficiency to achieve and increases his interest to learn sports skills skilfully and get mastery over skills. A better Physical Fitness helps to manage Sports injuries which caused by accidently in movement or while playing.

B. Develops Thrust of Competition: A better physical fitness urges a sports person to participate in much competition. Their thrust of playing may not stop nor they become tiered they just want to play continuously. Ability of playing, technical playing, use of tactics, play intelligence all can improve by participating more competition, without any hurdles if one can participate in competition for longer time this is because his physical fitness.

c. Develops Psychological wellbeing: Mental state of an athlete plays a vital role in sports achievement, and this Psychologicalwell being can be strongly developed by maintaining or developing Physical Fitness. Many things of psychology of an athletes like stress, anxiety, depression, can washout and needed strength of psychology like self confidence, self respect, achievement motivation, locus of control all will develop automatically while training physical fitness. Both the physical and psychological status can be improve by developing physical fitness.

D. Helps to take Training Load :while practice athletics the coach changes his training pattern of apply transfer of training to improve the capacity or efficiency of the athletes. If a athlete is strong enough to take any loan than he can continue with the training. For this particular training load a athletes should be physically fit and well conditioned mind set should be there. Well conditioned physical attitude can take any type of training load to achieve his dream. The high Intensity work load can implement on physically fit athletes.

E. Physical development urges the athlete to maintain good mental state The rapid development of modern competitive sports, the requirements for athletes' ability are very high in various aspects. In training and competition, athletes not only consume huge physical energy, but also pay a huge psychological energy.

F. Decreases stress

Another mental benefit of exercise is reduced stress levels—something that can make us all happier. Increasing your heart rate can actually reverse stress-induced brain damage by stimulating the production of neuro hormones like no epinephrine, which not only improve cognition and mood but improve thinking clouded by stressful events.

G. Increases self-esteem and self-confidence

From improving endurance to losing weight and increasing muscle tone, there's no shortage of physical achievements that come about from regular exercise. All those achievements can all add up to a whopping boost of self-esteem—and the confidence that comes with it. You may not set out for better-fitting clothes, a slimmer physique, and the ability to climb a hill without getting winded.

H. Better sleep

If you have trouble getting a good night's sleep, exercise can help with that, too. Physical activity increases body temperature, which can have calming effects on the mind, leading to less sheep counting and more shuteye. Exercise also helps regulate your circadian rhythm, our bodies' built-in alarm clock that controls when we feel tired and when we feel alert.

I. Brain boost

From building intelligence to strengthening memory, exercise boosts brainpower in a number of ways. Studies on mice and humans indicate that cardiovascular exercise creates new brain cells—a process called neurogenesis—and improve overall brain performance.

CONCLUSION

It was concluded that Planned and systematic physical fitness primarily put a positive effects on sports achievement and it will also leads to positive effects on mental as well as physical and personal development. Well Balanced physical and mental strength is necessary to achieve anything in life. Many people getting benefits to achieve in sports and games with lower risk of injuries by maintain good physical fitness. The Improved Self Confidence urges more participation in competition.

Many evidences shows that Physical fitness plays a incredible role to perform up to our potentials and to show our ability in competitions. Physical fitness involves into develop the performance of the heart and lungs, and the muscles of the body. Fitness can help with performing daily tasks, improve circulation and posture, aid in stress relief and enhance coordination to achieve our better performance.

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ANALYSIS OF MOTOR PERFORMANCE OF MALE AND FEMALE DEGREE COLLEGE STUDENTS

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Abstract: The purpose of the study was to analyse the motor performance skills between male and female degree college students. The variables selected for the study were Strength and Speed. The subject age ranged between 17 to 23 years. The subject of the study was 40 male and female students of Degree College. The selected motor skills were assessed by using the standardized test manual for motor developments. The collected data on the selected variables were treated with independent't' test at locomotors skills. It was found that the male students were better in the motor skills when compared with femalestudents of Degree College.
Keywords: Motor fitness Components, Strength, Speed, Male degree college students, Female degree college students.

INTRODCTION

Children are commonly considered to have the formative potential to perform most essential motor aptitudes at the developmental organize by age eight, in actually this is regularly not the situation. The securing of the fundamental development abilities are formatively sequenced, and are depends on motor components(Strength, Speed) and the procedure of procurement happening however a scope of dynamic play encounters and organized play.

Various factors are related with adopted and maintaining a physically active life style, such as socioeconomic status, cultural influence, lifestyle environment factors and health status (Seefeldt, Malina& Clark 2002) (Haywood & Getchell 2014) have reported that motor development refers to the continues, age related process of changes in movement as well as the interacting constrains of the individual, environments and tasks that drive these changes.

The statement of the problem

The purpose of the study was to analyse the motor fitness components between male and femaledegree college students.

Delimitation

- The study was delimited to degree college students
- The study was delimited to male and female degree college students only.
- The study was delimited to 20 students in each group.
- The study was delimited to selected Motor components.
- The study was delimited to strength and speed.

Limitation

The following were the limitation of the study.

- Although the subject was asked to give the best in the final test it is likely they were not sufficiently intrinsically motivated to performance.

The significance of the study

- The study has wide application both in Physical fitness testing program and in records studies together.
- It should be a help to know the general capacity of individual.

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- It should be help to compare motor performance of male and female study was delimited to selected Motor components.
- The study also reveals the changes in performance to the physical fitness.
- The studies will useful contribution to the sports selection of degree colleges.
- The study may help to coaching programme planner to prepare better training schedule.

Hypothesis

- It was hypothesised that male students of Degree Collegeare greater in motor performance ability compared to female degree college students.

Methodology

A total of 40 students (N=40)ofmale and female degree college were selected. The subject age ranged between 17 to 23 years. Twenty subjects each from category of the degree college.The selected motor performance components for the study are speed, and strength. The selected motor skills were assessed by using the standardized test manual for motor developments edition "t" test at 0.05 level of significant.

Medicine ball throw

The medicine ball throw is a common and easy to administer test of arm strength. It is one of the fitness tests in the NFL Combine. And is also an event in Sports Hall competitions in the UK.

Purpose: To measure the strength and power of the arms

60 Yard Dash

Sprint or speed tests can be performed over varying distances, depending on the factors being tested and the relevance to the sport. The 60yard dash is commonly used in testing baseball players, with many Major League clubs making this test mandatory prospective player. (See also the 30 yard dash which is part of the SPARQ rating system for baseball, and the baseball specific Home to First Base sprint test).

- **Purpose:**The aim of this test is to determine acceleration, and also a reliable indicator of speed.
- **Subject:**Male and female students of degree college.

As observed above, motor performance is closely linked with age and gender. It is a common reflector as well as predictor.The widespread use of anthropometric data in predicting the health status and sport performance of the population. In this study, one of the variables, the motor fitness component was assessed to find outthe motor performance of the target group.

ANALYSIS AND INTERPRITATION OF DATAAND DICUSSION

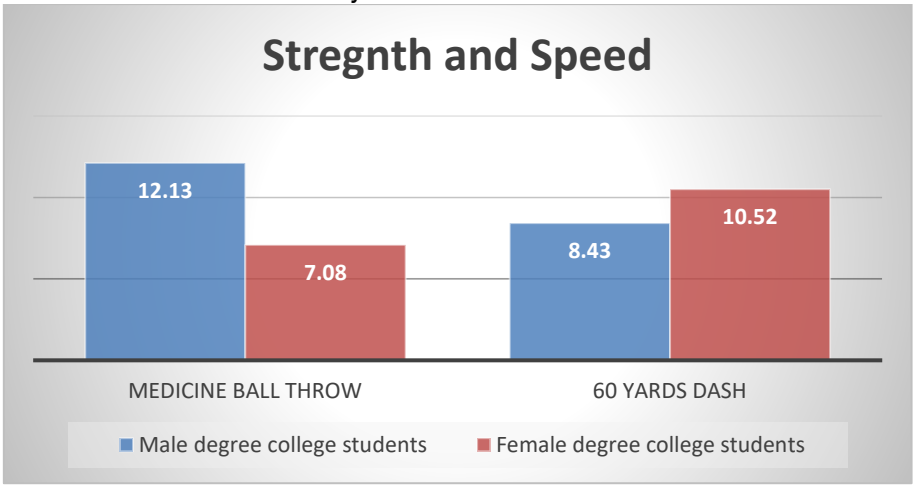
This investigation was mean to analyse the motor fitness ability of degree college students. Twenty from male student's category and twenty from female student's category were taken as subject for this study. Their physical fitness of the candidates was estimated on the basis of Borrow motor ability test performance in the events such as Medicine ball through, 60yards dash.The statistical analysis to which the data subjected has been presented in this chapter. The mean value for each item performance and standard deviation for the result of each activity and the same was tabulated below.

Table-1 :Shows the mean value of the male and femaledegree college.

Events	Male degree college students(20)	Female degree college students(20)
Medicine ball throw	12.13	7.08
60 Yards dash	8.43	10.52

Table-1 shows mean value of medicine ball through of male degree college students is 12.13 (20) and female degree college students is 7.08(20).Somale degree college students have the great strength compare to female degree college students. This score is applied on the standard norms of Borrow motor ability test.

Mean value of 60 yards dash of degree male degree college students is 8.43 (20) and female degree college students is 10.52(20).Somale degree college students have the greater amount of speed compared to female degree college students. This score is applied on the standard norms of Borrow motor ability test.



Figur-1: Show the mean value of motor performance of male and femalestudents of Degree College.

Table -2 Shows statistical analysis of Medicine Ball throws of Male and female degree college students.

VARIABLES	MALE MEAN± SD	FEMALE MEAN± SD	't'-VALUE	df	Sig
Medicine Ball throw	12.13	7.08	**6.10**	38	.000
60Mtr Dash	8.43	10.52	**4.813**	38	.000

*** Significant at 0.05 level, Table value-2.262.**

Table-4 shows the mean value of motor performance variables were: **12.13Mtrand 7.08Mtr** (Strength), **8.43sec and 10.52sec** (Speed).

Table also shows the obtained 't' values on motor performance variables were: **6.10Mtr**(Strength), **4.813sec** (Speed).

The obtained't' values were tested at **0.05** level of significance. Since the calculated 't' values were greater than the table 't' value at **0.05** level for degrees of freedom 38. Null hypothesis was rejected at **0.05** levels of significance and formulated research hypothesis was accepted. Thus it was concluded that male students of degree collegeshowed significant in strength, and speed as the study the above remark can be given at 95% confidence.

SUMMARY CONCLUTION AND RECOMANDATION

In the process of the sustenance and development, man was required to employ varies type of fitness, out of which fitness parameter like speed, strength, was of paramount importance. A desirable level of fitness was accepted at entry level for a couple of jobs and professional training. Male and female students of degree collegewas one such field of endeavour.

One of the very important factors responsible for the performance in competitive sports in fitness.Motor fitness helps to quick improve in performance of male and female students of degree college. They require more fitness for the sports activity. Motor fitness helps to better performance and attain goal with in a minimum time.

The study was taken by researcher to measure the physical fitness of the male and female students of degree college. So the researcher was selected the male and female students of degree college. Total 20 male students and 20 female students of degree collegewere administered BORROW motor ability test and find out the level of motor fitness ability and also find out the mean of both male and female students of degree college and also t-value was done with statistical analyses.

The data analysis of BORROW motor ability performance shows that male students of degree collegehave good arm strength and speed compared to female students.

Conclusion

On the basis of the data analysis the research in confident of arriving at certain conclusion based on his result of the study, they are as follows

1. The strength of the male students of Degree Collegeare better than the female students of degree college.
2. The speed of male students of Degree College is better than the female students of Degree College.

Recommendation:

Based on the finding of the study following recommendation are made.

1. Serious and regular practice will improve the motor fitness performance which is turned improve the speed, strength.
2. Will designing the training programme for sports person, the fitness of the student must be considered.
3. Teacher should conduct the fitness test for the development of motor fitness of the student.
4. Similar study can be conducted to identify the motor fitness test for different sports and games.
5. This study can conduct to fitness parameter level, on other fitness components such as Co-ordination,endurance, agility.

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INFORMATION TECHNOLOGY IN PHYSICAL EDUCATION & SPORTS

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Abstract : Information generation is vital part of the person and specifically in area of sports, sports and physical education. It helps plenty in organization and management of all sports activities and video analysis in international sports. Information technology will help to clinical analysis of all elements and issues at the very best degree possible. Facts generation encourages the improvement of sports science and additionally getting more require for in the discipline of sports. We can determine information technology to enhance sports activities performance and enhance sports activities achievements.

Introduction

Data generation is a standard term that describes any technology that facilitates to provide control, keep, speak and disseminate facts. Implementing generation as it should be into bodily schooling can decorate teaching and learning and make a contribution providing a first-rate bodily education software. Information generation refers to sorts of technology that used to create, save, percentage or transmit, exchange information. This huge definition of itc includes such technology television, video, mobiles, computer and community hardware and software program in addition to gadget and provider related to those technology. Heart price monitors, pedometers. And computer systems are available for all college students to use them simultaneously, teachers have to put in force station or circuit formats. Technology can assist physical educators decide evaluation performance quickly and without difficulty through calculation formulas, and permits them to create and personalize individualized health plans, in addition to offering many makes use of.

The bodily education and sports activities makes a enormous contribution inour each day life through thinking about advantage of information technology college, university and different institution organized through it information and laptop. Through computer kind of application may be tracked which assist in monitoring the sports activities performance and research carrying out health evaluation. In lots of ways the computers facilitate us to storing studies facts, treatment in sports activities medicinal drug flexibility and strength building application. Play in our lives with the aid of carefully considering the benefits and liabilities of latest statistics technology on the whole individual, body as well as thoughts. It's far more authentic innovation and convincing. A ramification of packages is available which help in music-grading, carrying out fitness assessment, monitoring studies projects, and analyzing sports performances. It might be facilitating to improve training techniques in sports activities and expand talents which act foremost function in sports competition. In many sports businesses are dependent on information technology.

Advantages of technology in sports activities and bodily training

- To store information of students
- Allows to train abilities and strategies
- Facilitates to decorate overall performance

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- Enhance sports equipment's
- Video evaluation
- Corrections of mistakes
- To update guidelines
- To store facts of sports activities records
- Find progressive techniques
- |Helps to create powerful sports activities schooling
- Facilitates to investigate biomechanical factors in sports activities

ICT programs

Computer

Computers is a device we will used to create documents, lesson plans, to transform scores etc. It also includes video unit's computer heart rate reveal, educational software. Motion analysis to enhance overall performance of competencies, video transferring, collection of movement in arm, leg and body movement to growth performance of abilities, unique software evaluation the photographs. Pc technology has facilitated biomechanical evaluation of performance and also generated graphical representations of seasoned-common sports activities overall performance will enhance the improvement of motor skills.

Internet

The net utilized by physical educators for coaching and gaining knowledge of and get diverse in data assets and service. And additionally, they can use the internet for mail, on-line chat, transaction, bulletin board planning record switch, sharing video, pics, looking each day information and journals, inter connected, type text documents and searching other assets through world web. Bodily training instructor can proportion enjoy with different included into coaching training.

Conclusion

Records era play effective function in bodily education and sports. In bodily education net and pc are make contributions essential aspects, especially in clinical area, research activities, education, bio-mechanical analysis, survey, planning for education agenda and many other topics will get guide to broaden their areas. Information technology can play an essential function in sports activities discipline and to assist a sportsperson to carry out at high degrees. Specifically, facts technology improvement in sports activities device, centers higher overall performance via both talent and unskilled folks and additionally it gives sports with suitable first-class and exceptional consequences.

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COMPARATIVE ASSESSMENT OF STRESS AND SELF CONCEPT BETWEEN PRESENT AND PASSED OUT COLLEGE STUDENTS

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Abstract : The main purpose of the study was to investigate the comparative assessment of stress and self-concept between present and passed out college students of Post Graduate Government Institute for Physical Education, vijayapur. India. Hundred students of which fifty present students of the above mentioned college, session 2011-12 and fifty unemployed passed oust dents of the same college, age ranging from 23 to 27 years were taken as the subjects for the study. For the present study, Personal Stress Source Inventory Questionnaire by Arun kumar Singh, shish kumar Singh and Aparna Singh and the Self-concept Questionnaire by Raj kumar Saraswatwas used to measure the stress level and Self-concept of the students. In order to investigate the existence of significant difference in comparative assessment of Stress and Self-concept between present and passed out college students, student't' test was used for statistical procedure. Statistical calculation of the gathered data showed that there were significant difference between the present and passed out college students of Post Graduate Government Institute For Physical Education, at of Post Graduate Government Institute for Physical Education, vijayapur India 0.05 level of significance. The passed out students showed low stress level and better self-concept than the present students of the same college.

Key words: Stress, Self-concept

INTRODUCTION

Stress is the sum of physical and emotional reaction to any stimulus that disturbs the organism's homeostasis. It is a factor that is without a question apart of daily living. Stress comes in many forms. Things like our environment, physiological wellbeing, thoughts and social stresses can have an effect on our learning. The knowledge of stress's impact on learning has resulted in a cottage industry dedicated to teaching methods of managing it. The ability to identify sources of stress and then ways to manage them are key to resolving and overcoming stress and opening our learning channels.(http://writing4students.blogspot.com) stress research typically is viewed as sub specially within medical sociology , a perspective that obscures commonalities with more traditional sociological areas of inquiry, especially social stratification. Stress (psychology), an unpleasant state of emotional and physiological arousal that people experience in situations that they perceive as dangerous or threatening to their well-being. The word stress means different things to different people. Some people define stress as events or situations that cause them to feel tension, pressure, or negative emotions such as anxiety and anger. However, most psychologists regard stress as a process involving a person's interpretation and response to a threatening event (Kablamo, 2005). Self-concept is one of the most popular ideas of psychological literature. Self-concept is inherently phenomenological that is, it refers to the person's own view of him/herself. Adjustment, academic achievement and general behaviours are among the development features of an individual which are subject to the influence of an individual's self-concept. Mostly present day educators and psychologists consider that in individual's self-concept is a critical facet of his personality (Bag, 2010).In fact, leading scholar in the field (Wylie, 1974) has argued that comparisons to external events are not particularly

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relevant in the assessment of Self-concept. In the field of physical education and sports, the importance of stress and self-concept are realized in every steps of a competition. In physical education curriculum the students have to adjust themselves the physically and psychologically stressed condition rather than any other area of education system. The physical education curriculum is prepared to establish the foundation of self-esteem and confidence.

STATEMENT OF THE PROBLEM

The purpose of the study was to compare the Stress and Self-concept level between the present college students and the passed out college Physical Education, Post Graduate Government Institute for Physical Education, vijayapur India

METHODOLOGY:

The randomly subjects selected for the study were 50 present students and 50 passed out unemployed students, age ranging for Institute for Physical Education, Post Graduate Government Institute for Physical Education, vijayapur India Personal Stress Source Inventory Questionnaire by Arun kumar Singh, Ashish kumar Singh and Aparna Singh and the Self-concept Questionnaire by Raj kumar Saraswat was used to measure the stress level and Self-concept of the students. Firstly, the randomly selected present students were assembled in a place during their leisure time. They were made understood the whereabouts of the st to put tick mark against each questions in the questionnaires provided accordingly in respect of their own opinions. In the same way the passed out students were also assembled into two groups in two different phases as these subjects collected in accordance to the instructions mentioned before.

STATISTICAL PROCEDURE:

For the purpose of comparing the Stress level and total Self-concept level between the present college studs was used at 0.05 level of significance.

Significance of Difference of Means and Standard Deviations of Stress between Present and Variables Present college students Passed out college students *'t' value required to be significant at 0.05 level

Table-1 :Significance of Difference of Means and Standard Deviations of Stress between Present and passed out College Students

Variables	Mean	SD	Mean Diff	SE	"t" Ratio
Present College Students	63.48	6.55	4.02	12.30	3.02*
Past College Students	59.46	6.76			

*significant at 0.05 level of confidence with 98 degree of freedom was1.98.

Table: 2: Significance of Difference of Means and Standard Deviations of Self Passed Out College Students

Variables	Mean	SD	Mean Diff	SE	"t" Ratio
Present College Students	170.47	12.80	5.73	34.66	2.21*
Past College Students	176.20	11.90			

*significant at 0.05 level of confidence with 98 degree of freedom was 1.98. 5 freedoms was 1.98.

Discussion of the Findings

The results as obtained while conducting the study and after analyzing the gathered data can be expressed by the following ways the comparative results of the study on stress & self-concept between the present college students & passed out college students showed significant difference. The data represented that the present college students were in a psychologically more students because they had to adopt themselves in the scientifically vigorous college curriculum to build the root of their future. The present college students were found less experienced about the college curriculum and always in a thoughtful state about which kind of burden is about to come. The passed out students were found better in self-concept than the present college students as after completing their degree, they felt a little bit relaxed as they had

the required job to be a physical education teacher. In general the passed out students need not to do physically and psychologically tough deed as the present students do except the exceptional. This result of the present student may be due to the pressure of the college's rules bounded curriculum of study and the relaxation from pressure of study and physical labour contributed for this result in favour of passed out students of the college. Grosse and Bush, 1979 used emotional and physic criteria of successes in coping with stress. Factors that affected those responded were: sex, age, religion, ethics or culture, education level, occupation, interpersonal relation, and health conditions Organizational stressors include and working condition

CONCLUSION

1. It was found that the present college students were found in a more stressful condition than thePassed out college students.
2. It was also found that the passed out college students were found better in self-concept than the Present College Students.

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IMPORTANCE AND NEED OF PHYSICAL EDUCATION IN MODERN ERA

PAVITHRA .N

Abstract: In today's life physical education plays an important and vital role in life of each and every human being. which helps in developing overall wellbeing of a human being such as physical, mental, social, emotion stability and more, hence people have accepted and started performing physical activity in their day-to-day life which contribute to their life style management, management of diseases, maintain fitness and active participation in their day-to-day activity.
Keywords: modern era , physical education, branches of Physical Education

Introduction

Physical education is an education through physical exercise and physical activity which bring development and improvement in health and fitness level, physical activity which includes walking, jogging, running, swimming, climbing, skipping, pushing, pulling, lifting, kicking, throwing, hopping etc. where physical education is also called as movement education as all over human being starts our day life with movement only till the end of our life.

According to ministry of education and national planning for physical education and Recreation" the aim of physical education must be to make every child physically mentally and emotionally fit and also to develop in in personal and social equality quality that will help to live happily with others physical education program should also aim to build good citizen of the country"

Physical education is carried forward from the ancient period but In present days physical education is one of the most dynamic , rejuvenating, exciting and recreating subject , the view of physical education as been changed from past to present scenario where it as stretched its wings all most all over the world , previously physical education is viewed just as physical activity but the entire scenario and concept of physical education have been changed completely which made number of people grow interest on physical education and to engage themselves in physical activity in their day to day life, which leads to increase the number of people engaging themselves physical activity and number of gym, training centres ,fitness centres also increased gradually.

Different branches in Physical Education

- **Sports management:** sports management requires lot of knowledge and creative skills because it include aspects like organising planning directing cooperative and controlling of any event of sports and games.
- **Organisation and administration:** this both concepts majorly deals with controlling of human resource and other functions in order to establish or complete the predetermined goals and objectives
- **Health education:** physical health + Mental health + Social health + Emotional health – diseases = overall wellbeing
- **Sociology of sports:** sports especially team sports lead and individual to interact with other sports persons and colleague during the on and off the competition develops the sports person socially and increases their communication level
- **Teaching methodology:** this can be even called as method or way adapted by an individual to learn how to teach the particular skill or a sports related movement

or activity both practically and theoretically

- **Motor learning:** physical education is called as movement education which requires lot of motor quality such as agility balance coordination speed reaction ability endurance etc.
- **Sports psychology:** this concept helps to deal with different internal and mental external mental qualities and makes us to understand the behaviour of an individual in many situations and circumstances which he is facing during on and off the competition
- **Applied Anatomy and Physiology:** anatomy helps us to know about the structure and organ of human body and Physiology helps us to know about the different functions of organ and systems in human body and how this can be applied in different sports and games
- **Sports Technology:** the application and adaptation of modern equipment and gadgets which helps us to improve the performance of an sports person and to access and evaluate the ability and performance level of sports person during on and off the computation accurately
- **Test and Measurement:** where we use standardized method equipment and technique to calculate ability performance and attitude of a sports person

Need and Importance of Physical Education

When we talk about olden days and modern days definitely the lifestyle from olden days to modern days are being changed completely including lifestyle food diet work Technology et cetera so in modern days technology is becoming a part and parcel of each and every human being for leading day to day life , so people have changed from active lifestyle to static lifestyle so it leads people to face lot of problem in day to day life like stress , depression, type 2 diabetes, cancer , blood pressure , sleeping disorder, obesity , heart diseases and many more problems , so here physical education is the only solution for us to keep us healthy.

Physical importance of physical education

- Keeps us healthy and fit
- Keeps us away from chronic diseases
- Increases lifespan
- Increases muscle strength and flexibility
- Keeps us active all day
- Create attractive personality
- crease our power of immune system
- Combat few kind of Cancer
- Aid in weight management
- Reduces joint pain and stiffness

Mental importance of physical education

- Improve memory power and brain function
- Increases our quality of sleep
- Reduces feeling of anxiety and depression
- Increases creativity and self confidence
- Develop quality of problem solving
- Improve positive attitude

Social importance of physical education

- Increases social concern and responsibility
- Develop the sense of social awareness

- Increases organisation and administration skills
- Increases interpersonal relationship
- Increases communication level
- Develop the quality of managing different class of people

Conclusion

At last , it is to be said that physical education is a fundamental and importance part of entire life of an human being like food and shelter, If we do not engage ourselves into minimum amount of physical activity it will lead to disuse of our body (use or disuse) which may bring lot of physical and mental disorders to our body so no doubt that there is 100% requirement of physical activity to our body for maintaining physical , mental , social , emotional and spiritual health to lead a happy life .

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PRESENT SPORTS POPULARITY AND SOCIAL MEDIA

♣ASHA. D & Prof. N. CHANDRAPPA♦

Abstract : Sports and social media have both of depends upon social operation. They are interlinking to work together now a days the value of sports companies has increased very moch and investing a late of information of the sports. The companies raise a particular time to time, the deferent issues relating to sports and beneficial aspects of sports the social media has influenced the sports very Mach and it has been all so aspect by the sports players and athletes. The sports and social media has promoted values associated with capitalism nationalism and racism the sports and social media has promoted the viewership, Sponsors and partnership also.
Keywords: Media in sports, perfectionism, Disciplines and Athleticism

Introduction

Sports in all forms usually challenging physical activity through connection with global media broadband participation aim to use maintain or improve the sports and physical ability & skill performance while providing entertainment to participants & some cases spectato+rs ether in team or individuals.

Company size 201- 500 employees ,types –privatly held founded 1980, specialities, Sports media is dedicated to to helping our business with full service marketing specializing in live sports &related sports mediums, its gives unlock new opportunities & build brand awareness by going social media

Role of media in sports

The media sets up story lines around the sporting event and the individuals involved they are work to script the event So as to excite. They provide pre-event discussion and Analysis. The viewer's appetite is heightened.

The social media has become an important tool. For Distributing content and attracting new Radars, as well as creating new, more participations,

Social media is very important in sports such as communication and Sports Marketing.

Social media and the Roller Sports business. Sports as a big business, it is, as well as established Global industry with International Olympic Committee.

Next social media is changing the way of sports stars clubs and fans are interacting with each other such as Twitter, Facebook, and Instagram. From light weighting about game. Exeter, Creating snacky, mems and chair reading from the webshop. Spectrums are no longer simply watching Sport and fans can often get news inside. And come in commentary. Try it from the source.

Characteristics

According to Jhon Thompson (Cambridge university)

Mass media is five Characterise :

1. Technical and institutional methods of production and distribution. This is evident throughout history of the media from print to the internet, each suitable for commercial utility.
2. Mass media involves the commodification of symbolic forms, as the production of material and its capacity to manufacture and sale large quantity of the work production

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just as radio station rely on its time Sold to advertisements, same reason newspaper rely also.

3. The production and reception of information should be separate context.
4. Its reach to those far removed identify time and space in commercial to the produces.
5. Distributing one or more communication informations and it gives great quality of audiences.

What is the sports media partnership,

Sports has become big business in the word. It is promote a well established a wordwide with International Olympic committee sports, but not in all sometimes as something to sell. Its many largest Club. Bundle. It performance course can make more but the sport personolities get very little pot of The are not money by different leaks. The relationship between media is Central to the political economy of sports through media (social media). We can choose all type of information about sports,

The profession of social media

In the professionals like producer, directors, commenters, reports, and cameramen. Exist to produce a media's for aiming to attract interest and excite audience, their emphasis in making the Product attractive and to this end. It is sometimes too difficult to establish where this poor start and the media event and distribution. So, television from program is the promote concern decision or making audience. You are directed what to live seeking and read and output. Make sense of it. The media professional contract and frame work the Sports Experience maintaning their audience.

The social media in sports or fans daily lives

The rising of mobile phones users and social media has changed the way. We look at variety things. In today's society, including our engagement in sports. There are namely social media platforms, like Facebook, Twitter, Instragram, and YouTube, Etc.

Impact

A. Advantages

1. Business: powerful characters script will be shows TV generate easier to attractSponsorship
2. Knowledge: people learn the game rules and regulation on TV shows our newspaper.
3. Motivate: encourage participation through the game
4. Role model : sports figures can and do serve. To inspire other on social media.
5. Game analyses; how to play out, how will be used strategies skill techniques Etc totaly game aid
6. Entertainment; live programs hand eyelids, very popularity.
7. Instructive: coaching and teaching series and axcepts.

Disadvantages

1. Attendance May drop; people watch from home.
   a) Over wide information: Some TV channels and Medias overload or say too much.
   b) Loss privacy: Sports personalities lost privacy.
   c) Timing changes: to event timing they are night matches.
   d) Loss of exposure: Some sports get lost of next pose. Will other get non
   e) Political and financial problems are more influencing social media problems.

Conclusion

- Sports and social media bottle global and social operation and water bonded together in a complex network
- The year 1980 companies value or more and companiesinvestment in Sports has grown dramatically.
- The company's raises important issues of Access and equity especially with the growth of playing and View sports events.
- The media considerable capacity to influence of character and development of sports a little evidence of residence to Commodification vacation from sports personalities or Athlete the Media Production to process emphasises spectacles, drama and personalisation.
- Generally sports media promote and reinforce a distinctive set of values associated with capitalism nationalism patriarchy and racism.

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YOGA AND ITS ROLE IN SPORTS

CHIDANANDA .S.M♣

Abstract : Yoga is very ancient discipline. Its importance for the spiritual attainment has been recognized throughout the ages by all the systems of Indian Philosophy; however, its application in various fields is a new trend. Yoga is an art that connects our body, mind and soul together and makes us strong and peaceful. Yoga is essential because it keeps us fit, helps in reducing stress and maintains overall health and healthy mind can help in concentrating well. Yoga is the application of physical postures, control of breath, purification and relaxation of mind/Body and spiritual principles aimed at bringing greater unity and balance to the and body. Yoga teaches a person how to line the mind and body and to come into the present. The use of pranayama and breathing techniques prescribed in yoga enable a person to focus on breath and to calm and still the mind and cultivate concentration ability. Steady and systematic practice of yoga will make the mind very obedient and faithful and make the practitioner successful in every attempt. Asanas also help to create harmony and balance between the mind and body and helps achieve a healthy body and stable mind, they are aids for controlling the mind through physical discipline. Through asana the functioning and efficiency of internal organs is improved and this consequently effects all other parts of the body in a positive manner. Cells are nourished and revitalized and the internal functioning of body organs is enhanced. Yoga can help a sportsperson to have evenness of mind and control of their thoughts even during stress and/or adversity. Yoga is able to help a person have control over their body through control of their mind. As such, Yoga can play a key role in cultivating mind control and concentration which helps a sportsperson to perform at their peak level.

Keywords: Yoga, pranayama, Asanas, concentration, sports,

Introduction

Yoga is very ancient discipline. Its importance for the spiritual attainment has been recognized throughout the ages by all the systems of Indian Philosophy; however, its application in various fields is a new trend. Although the word 'Yoga' has many connotations etymologically it means 'integration'. Other terms like homeostasis, equilibrium, balance, harmony etc. more or less suggest the same thing. The aim of Yoga itself is integration of personality in all its aspect.

Yoga is an art that connects our body, mind and soul together and makes us strong and peaceful. Yoga is essential because it keeps us fit, helps in reducing stress and maintains overall health and healthy mind can help in concentrating well.

Yoga is a discipline that seers and saints have been practicing since ancient time to bring flexibility to the spine and joints, to keep the muscles of the body pliable and youthful, increase circulation in arteries and strengthen internal organs. And yet, yoga is so much more than this. Yoga has been said to help strengthen the power of concentration, to banish constipation, to relieve stomach disorders, improve muscle coordination and reduce excess body fat. Yoga has also been said to strengthen the mind-body connection, bring calmness and relaxation to mind, enhance self-confidence, strengthen self-discipline and self-resolve, reduce stress/anxiety and increase vitality and energy throughout the body. Evidently, it would appear that yoga intensive benefits and can help us to be more balanced, relaxed, focused, efficient and

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effective person. The benefits yoga can thus be applied to a variety of disciplines including professional sporting athletes.

It is necessary to explore what is required to play a sport, and play it well. It is well acknowledged that play any sport, whether it tennis, volleyball, surfing, swimming or running, we must develop the basic skills and continuously train the body so that we can apply the skill in refined and polished way. This of course requires considerable time, energy and commitment to practice the skill at hand. Having a body that is flexible, strong and controlled is also another important consideration. If one is not able to move the body with the grace, velocity and speed required, then performance will be lackluster. Similarly, if a person is not able to maintain endurance of stamina for the required duration, the performance will be diminished. In order to play sport well, it is also necessary that a person is able to focus and concentrate with confidence on the task at hand without distraction of timidity. As such, dealing with distraction, adversity and stress is an important component. Sporting skills require the attainment of deep focus, living in every moment and emphasizes that 'the toughest part of any achievement is the handling of distractions and adverse conditions'. If one is not able to 'score the goal' or 'serve the ball' at the critical match point or deal with crowds who are 'cheering or booing' victory will be far away. As such, in addition to being able to maintain mental poise and balance, it is essential for professional Athlete to have a high degree of alertness, concentration and focus throughout the sporting match / event. How then can yoga assist in strengthening the mind and body to allow a sports person to perform at their highest potential?

Yoga is the application of physical postures, control of breath, purification and relaxation of mind/Body and spiritual principles aimed at bringing greater unity and balance to the and body. Yoga teaches a person how to line the mind and body and to come into the present. The use of pranayama and breathing techniques prescribed in yoga enable a person to focus on breath and to calm and still the mind and cultivate concentration ability.

Pranayama for strengthening concentration and of mind through stillness of breath. Through pranayama, will-power, self- control and concentration power can be increased. Coming into the present by focusing on breath is one of the best habits to be cultivated. That marks the beginning of concentration. Internal cleansing methods prescribed in Hatha Yoga are beneficial for professional athletes to not only improve purity of the body and overall physical wellbeing, but to also enhance one's concentration ability as well.

When the body is free from physical impurities, the concentration power of the mind increases to a very high degree. Pranayama can also help to energize and revitalize the body.

The prescription of Yoga Asanas also help to develop the control and concentration of the mind. Being able to hold a posture with steadiness, relaxation and comfort requires that a person is able to focus their mind for an extended period of time. This helps for developing strength and concentration in mind/body and is beneficial to playing sports at highly competitive levels.

Steady and systematic practice of yoga will make the mind very obedient and faithful and make the practitioner successful in every attempt. Asanas also help to create harmony and balance between the mind and body and helps achieve a healthy body and stable mind, they are aids for controlling the mind through physical discipline. Through asana the functioning and efficiency of internal organs is improved and this consequently effects all other parts of the body in a positive manner. Cells are nourished and revitalized and the internal functioning of body organs is enhanced. Yogic exercises are mainly designed to keep the proper curvature of the spine and to increase its flexibility, balancing Asanas develop the function of the cerebellum, the brain centre that controls how the body works in motion, improve muscle coordination and

posture including physical and nervous balance which helps to achieve grace and fluidity of movement.

The use of Yoga Nidra and visualization can assist in development of a skill and reinforce a new pattern of behaviour r beliefs. Meditation and chanting can also help to reduce stress and anxiety and create a mental calmness and poise beneficial for performing at peak times.

Yoga is able mobilize joints, stretch tissues and ligaments, tone muscles, bring flexibility to the spine and strengthen internal organs. Yoga exercises are based on the formula of stretching, relaxation, deep breathing, increasing circulation and concentration. As such, yoga is beneficial to a professional athlete as it enables them to strengthen their concentration ability, foster a calm, and relaxed mid, enhance the mind/body connection allowing an athlete to have greater muscle coordination and fluidity of movement. Yoga is also beneficial to a professional athlete as it positively contributes to the health and vitality of the body, strengthens internal organs such as the heart, lungs and liver and helps to maintain fitness and agility. Yoga also helps to reduce stress and anxiety, cultivate self-confidence and self-belief. All of these elements are pivotal to sporting excellence and peak performance.

Conclusion

Yoga has a wealth of benefits for athletes, and it's worth trying if you want to gain strength, flexibility, and balance. It may help improve your range of motion, mobility, and coordination all of which can boost your performance and prevent injury.

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

Yoga's incorporation of meditation and breathing can help improve a person's mental well-being. Regular yoga practice creates mental clarity and calmness; increases body awareness; relives chronic stress patterns; relaxes the mind; centers attention; and sharpens concentration.

Yoga can help a sportsperson to have evenness of mind and control of their thoughts even during stress and/or adversity. Yoga is able to help a person have control over their body through control of their mind. As such, Yoga can play a key role in cultivating mind control and concentration which helps a sportsperson to perform at their peak level.

LONG-TERM EFFECTS OF AEROBIC EXERCISE

Dr. RADHIKA.M♣

Abstract : Aerobic exercise encompasses a variety of positive effects, from reducing health risks and maintaining healthy weight, to managing chronic conditions and boosting mood. People that exercise aerobically may very well live longer than those that do not. Short effects of exercise area unit typically easier to note, however many studies demonstrate that long-run effects exist that area unit even as fascinating and useful.

INTRODUCTION

Mechanical and busy life style is increasing stress among the people. Advancement in the technology has given a very comfortable domestic life. People are becoming so sedentary and were physical movement oriented. Thus resulting the increasing obesity and developing varieties of chronic illness among the adults. Children are not spared from this situation. The scarce productive human resource of the nation is at a threat.

Children are the budding flowers of the society. They are the future of any nations. Their proper nurturing is has a bearing on their holistic development of personality. The social psychological, and perhaps physical development has something to do with their achievements in future.

Meaning of aerobic exercise

Aerobic exercise is sometimes known as "cardio"- exercise that requires pumping of oxygenated blood by the heart to deliver oxygen to working muscles.

Aerobic exercise stimulates the heart rate and breathing rate to increase in a way that can be sustained for the exercise session. In contrast, anaerobic ("without oxygen") exercise is activity that causes you to be quickly out of breath, like sprinting or lifting a heavy weight.

Benefits of Aerobic Exercise

During cardiopulmonary exercise, you progress the massive muscles in your legs, hips and arms, and your body responds quickly by respiration quicker and additional deeply. Your heartbeat accelerates, increasing blood flow to your muscles and lungs. Capillaries widen to require additional gas to your muscles and bear away greenhouse emission and carboxylic acid. Your body releases endorphins, that area unit natural painkillers that make Associate in nursing increased sense of well-being.

- **Cardiovascular Benefits**

A study of long-term aerobic exercise on arterial stiffness in the elderly, reported in "Hypertension Research," a Japanese journal, in 2007, focused on the cardiovascular system. The participants were between 64 and 70 years of age and performed mild to moderate aerobic exercise for 30 minutes twice a week for six months. Both systolic and diastolic blood pressure significantly decreased after 30 minutes of aerobic exercise. There were significant decreases noted in arterial stiffness, systolic and diastolic blood pressure after the six-month exercise period, leading researchers to conclude that long-term aerobic exercise can benefit elderly people by improving their cardiovascular health.

- **Obesity Reduction**

The "American Journal of Clinical Nutrition" in 1995 reported a study on the effects of aerobic exercise and dietary carbohydrate on energy expenditure and body composition in obese women. The 12-week study followed 23 obese women assigned to aerobic exercise or no

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exercise and either a low-fat or low-carbohydrate diet. Diet composition did not significantly influence body composition or energy expenditure changes, but there was greater weight loss with a low-carp diet when compared to a low-fat diet. Adding aerobic exercise to a low-carp diet resulted in favorable effects on body composition, physical activity and total daily energy expenditure.

❖ **Psychological Benefits**

Mind is affected as much as body by aerobic exercise. A University of Missouri-Columbia study researched the long-term effects of aerobic exercise on psychological outcomes. Eighty-two participants completed depression, anxiety and self-concept inventories after a 12-week aerobic fitness program. The exercise participants showed a positive fitness change and psychological improvement at the end of the 12-week program, compared to the control group. At a one-year follow-up, psychological benefits showed a significant improvement from the baseline.

❖ **Heart Rate during Exercise**

Resting heart rate is normally 60 to 80 beats per minute but is often lower in trained athletes. Heart rate increases as you exercise to deliver more blood and oxygen to your working muscles. Intense exercise causes a steeper increase in your heart rate than moderate exercise. People who don't exercise regularly tend to have higher heart rates with physical exertion than those who are fit. Being in the heat, feeling dehydrated, having a high body mass index and getting up in years also tend to cause your heart to beat faster during exercise. After you finish exercising, your heart rate remains high for a few minutes as you recover. The more fit you are, the quicker your heart rate returns resting level.

❖ **Blood Pressure during Exercise**

Along with an increase in heart rate, the force of your heart's contractions also increases while exercising, so more blood is pumped with each beat. This effect increases blood pressure. However, the blood vessels that supply your muscles dilate, or get larger, during exercise. This enables increased blood flow to your muscles without putting excess pressure on your blood vessel walls. So while your blood pressure rises during exercise, it is to a much smaller degree than the increase in heart rate. Like your heart rate, your blood pressure returns to resting level a few minutes after you stop exercising.

❖ **Heart Rate Benefits**

Exercise doesn't just strengthen the muscles you can see; it also strengthens your heart and keeps your blood vessels healthy. After a few months of regular exercise, your resting heart rate may slowly decrease because your stronger heart pumps more efficiently. Your resting heart rate affects your risk for heart disease. One study of more than 29,000 men and women whose resting heart rate increased over 10 years were found more likely to die of heart disease, according to a December 2011 "JAMA" report.

❖ **Blood Pressure Benefits**

Regular exercise has blood-pressure-lowering effects in people with or without high blood pressure, or hypertension. The American Heart Association recommends regular exercise to help treat hypertension and prevent heart disease and stroke. A review article published in the spring 2001 issue of "Preventive Cardiology" reported that regular aerobic exercise decreases blood pressure 4 to 5 percent in people with hypertension and 1 to 2 percent in people with normal blood pressure. A January 2005 "Journal of Applied Physiology" review article reported significant blood pressure reductions after 12 weeks of regular exercise. The authors noted benefits with both aerobic and strength-training exercise.

❖ **Improving Your Heart Health**

To keep your heart healthy, the American Heart Association recommends at least 150 minutes of moderate exercise or 75 minutes of vigorous exercise weekly. If you aren't currently exercising regularly, talk with your doctor about how to get started safely and setting personal goals. Because hypertension typically causes no signs or symptoms, it's also important to have your blood pressure checked regularly.

CONCLUSION:

Regular aerobic exercise promotes complete health of an individual. Regular aerobic exercise helps to overcome many problems of health.It protects physical health to overcome physical problems.

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SPORTS PSYCHOLOGY AND MIND TRAINING TECHNIQUE: MENTAL SKILLS FOR ACHIEVING OPTIMUM PERFORMANCE

Dr. T. SRINIVASA♣

Abstract : Mind Training Technique is the segment of sports psychology that concentrates specifically on helping athletes break through the mental barriers that are keeping them from performing up to their peak potential. By focusing on the mental skills needed to be successful in any sporting competition, mind training technique seeks to achieve the overall goal of performance improvement. Some athletes find themselves fully prepared physically to get back into competition and practice, but mentally some scars remain. Injury can hurt confidence, generate doubt during competition, and cause a lack of focus. Mind Training Technique is to identify and enter the "mental zone" of a sportsperson. The overall aim of these techniques is to help athletes by developing foundational mental skills that can help to achieve optimum sport performance. All great coaches employ game plans, race strategies, and course management skills to help athletes mentally prepare for individual and team sports competition. This is an area beyond developing basic mental skills in which a mental coach helps athletes and teams.

Keywords: Building self-confidence, Goal setting/Developmental planning, stress management, Imagery and visualization, Concentration and attention control.

Introduction

Sports psychology is essentially the study of how the mind affects physical activity and athletic performance. According to the American Psychological Association, "sports psychology addresses the interactions between psychology and sport performance, including the psychological aspects of optimal athletic performance, the psychological care and well-being of athletes, coaches, and sport organizations, and the connection between physical and psychological functioning.

Sports psychology is the sport science that seeks to understand psychological and mental factors that affect performance in sports, physical activity and exercise, and apply these to enhance individual and team performance. Sports psychology is now so important to performance at the top level of sport that most elite sporting clubs and individuals employ sports Psychologists to work with them. There are four major performance skills for all elite sportsmen and women, these being technical, physical, tactical and mental. The latter skill is one that can make the crucial difference for athletes performing consistently to their abilities. Sport psychology has played a significant role in the understanding, training and ultimately the use of mental skills for peak performance.

Sports psychology and mental toughness:- The increased stress of competitions can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand. This has led coaches to take an increasing interest in the field of sport psychology and in particular in the area of competitive anxiety. That interest has focused on techniques that athletes can use in the competitive situation to maintain control and optimise their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a

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positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armoury in gaining the winning edge.

THE 4cs‟ Model of Mental Toughness:-

Hull team (a team of researchers at Hull University) proposed that confidence (as well as control, commitment and challenge) was a key element of mental toughness.

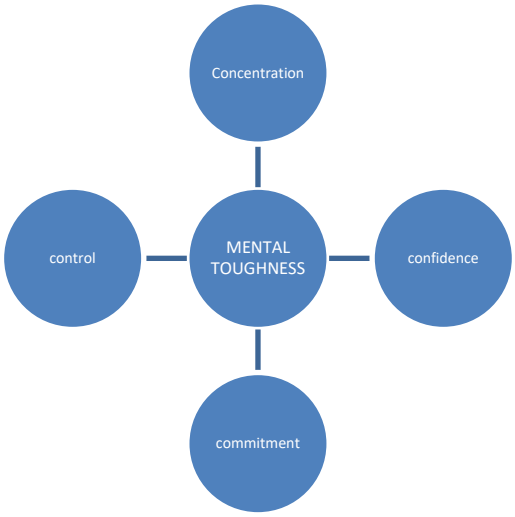

Fig.1- „4Cs‟ MODEL OF MENTAL TOUGHNESS

This has given rise to the „4Cs‟ model of mental toughness. Fig.1- „4Cs‟ MODEL OF MENTAL TOUGHNESS Concentration, confidence, control and commitment (the 4C's) are generally considered the main mental qualities that are important for successful performance in most sports.

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

The techniques of relaxation, centering and mental imagery can assist an athlete to achieve the 4C's.

- **Concentration**:- This is the mental quality to focus on the task in hand. If the athlete lacks concentration then their athletic abilities will not be effectively or efficiently applied to the task. Research has identified the following types of attention focus:
  - Broad Narrow continuum - the athlete focuses on a large or small number of stimuli
  - Internal External continuum - the athlete focuses on internal stimuli (feelings) or external stimuli (ball)

The demand for concentration varies with the sport:

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

Common distractions are: anxiety, mistakes, fatigue, weather, public announcements, coach, manager, opponent, negative thoughts etc.

Strategies to improve concentration are very personal. One way to maintain focus is to set process goals for each session or competition. The athlete will have an overall goal for which

the athlete will identify a number of process goals that help focus on specific aspects of the task. For each of these goals the athlete can use a trigger word (a word which instantly refocuses the athlete's concentration to the goal) e.g. sprinting technique requires the athlete to focus on being tall, relaxed, smooth and to drive with the elbows - trigger word could be "technique" .

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

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

  To improve their self confidence, an athlete can use mental imagery to:
  - Visualize previous good performance to remind them of the look and feel
  - Imagine various scenarios and how they will cope with them Good goal setting (challenging yet realistic) can bring feelings of success. If athletes can see that they are achieving their short term goals and moving towards their long term goals then confidence grows. Confidence is a positive state of mind and a belief that you can meet the challenge ahead - a feeling of being in control. It is not the situation that directly affects confidence; thoughts, assumptions and expectations can build or destroy confidence.

High self confidence

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

Low self confidence

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

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

  Anxiety comes in two forms - Physical (butterflies, sweating, nausea, needing the toilet) and Mental (worry, negative thoughts, confusion, lack of concentration). Relaxation is a technique that can be used to reduce anxiety. When an athlete becomes angry, the cause of the anger often becomes the focus of attention. This then leads to a lack of concentration on the task, performance deteriorates and confidence in ability is lost which fuels the anger - a slippery slope to failure.

- **Commitment:-** Sports performance depends on the athlete being fully committed to numerous goals over many years. In competition with these goals the athlete will have many

aspects of daily life to manage. The many competing interests and commitments include work, studies, family/partner, friends, social life and other hobbies/sports.

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

- A perceived lack of progress or improvement
- Not being sufficiently involved in developing the training program
- Not understanding the objectives of the training program
- Injury
- Lack of enjoyment
- Anxiety about performance - competition
- Becoming bored
- Coach athlete not working as a team
- Lack of commitment by other athletes .

Setting goals with the athlete will raise their feelings of value, give them joint ownership of the goals and therefore become more committed to achieving them. All goals should be SMARTER. Many people (coach, medical support team, manager, friends, etc) can contribute to an athlete's levels of commitment with appropriate levels of support and positive feedback, especially during times of injury, illness and poor performance. Overall mental toughness is an extremely important topic within sport; however much of the research which has been conducted is based on personal opinion rather that sound empirical research. Future researchers face the challenges of exploring mental toughness in a broader context and more attention is needed to look at how mentally tough individuals perform in all areas of their life.

Mind Training technique skills

One benefit of sport psychology training is that it enhances performance on the court. Winning is one of the main objectives in tennis, but winning requires consistent performance at a high level. Mental proficiency helps ensure this consistency, guarding against fluctuations in performance. As the game becomes more sophisticated, coaches who fail to properly utilize psychological tools place their players, and themselves, at a disadvantage in performance and satisfaction. A full investment in sport psychology may spell the difference between high achievement and mediocrity for players.

For years sport psychologists have examined how psychological skills training, including mental skills training, helps athletes improve performance. Mental skills are procedures that

help athletes control their minds efficiently and consistently as they execute sport-related goals. This not only involves developing skills such as concentration and stress control, but it also includes efforts to influence personal characteristics such as self-esteem and sportsmanship.

Psychological skills techniques help athletes make adjustments to their actions, thoughts, feelings, and physical sensations that will improve their games. Players can use these techniques to

- help build self-confidence,
- set goals,
- manage their stress,
- use imagery and visualization to work on game skills,
- focus concentration and attention.

Sport psychology also can help athletes with problems off the court that may affect performance on court.

Building Self-Confidence

Self-confidence as an athlete's realistic expectations about achieving success, and stated that self-confidence is not what athletes "hope" to accomplish, but rather what they realistically "expect" to accomplish. Confidence as "an umbrella term describing all the thoughts, feelings, actions, and sensations reflecting self-belief and expectations of success" .

To foster self-confidence in players, you should act confident yourself to set a good example, help players improve their skills and competencies, use frequent rewarding statements (see the later section "Positively Reinforce Players"), and encourage positive self-talk. You should also de-emphasize outcomes and help players to focus primarily on performance improvements and excellence.

One key challenge in tennis is to help players stay confident and positive despite match drawbacks. Players often lose confidence and become intimidated in times of difficulty, giving rise to negative thoughts and low expectations. Encouraging athletes to maintain high expectations and positive thoughts regardless of the score helps. Overconfidence can also be a problem, leading to reduced effort and intensity that lower performance.

Goal Setting/Developmental Planning

Goals are something that we want to achieve or accomplish, and they give our energies specific direction. By setting goals, tennis players gain a sense of control over their actions and can move beyond beliefs or fears that may prevent high performance. Goal setting has been shown to enhance performance, reduce anxiety, increase confidence and understanding, and enhance purpose and motivation.

For goal setting to work, the athlete must set goals properly. The following are ten principles for goal setting accumulated from years of practical experience and scientific study:

1. Set goals for mental as well as physical skills.
2. Set goals that are specific and measurable.
3. Set a target date for completion.
4. Set goals that are difficult but realistic.
5. Set short-term, intermediate, and long-term goals.
6. Set goals for practice as well as for matches
7. Set goals that are positive (like "improving first serve percentage") as opposed to negative (like "allowing fewer aces").
8. Remain flexible enough to adjust goals as needed.
9. Write the goals down on paper.
10. Emphasize performance goals over outcome goals (such as winning).

You should meet with each player periodically to set, review, and evaluate goals. In many cases, parents should be involved in these meetings too. You all should agree upon a developmental plan that includes the following parts developed in this order :

- A long-term, comprehensive vision of the type of player the athlete wants to become (style of play, weapons, conduct, physical conditioning, etc.)
- The strategies and patterns that need to be mastered and the weapons to be developed
- The training needed to make sound basic tactical adjustments and good shot selection
- The techniques to be developed
- The emotional/psychological approach the player will take to competition
- Scheduling and periodization
- Physical development
- Goal setting

The developmental plan should include a year-long goal schedule divided into monthly, weekly, and daily subgoals. With this roadmap in place, the player often feels more confident, and it's easier to track her or his performance and adjust goals as needed.

Conclusion

The use of sport psychology may extend far beyond mental skills training. For example, roblems such as academic stress, strained relationships, time management, family conflict, and financial concerns affect everyone at one time or another. Although these issues rarely represent severe distress, they may easily compromise a player's tennis performance. When such problems arise, discuss them with your players and seek professional assistance when needed, as there is much at stake for both of you. When you recommend the services of a sport psychologist – whether for mental skills development, resolution of off-court issues, or treatment of more serious distress – introduce it to the player as a positive opportunity to improve performance and well being by learning new mental skills and reducing distractions. The use of psychological strategies to improve sports performance has increased significantly over the past few decades. Coaches have realised that, particularly at elite level psychology plays a key role in determining the level of performance. The ability of the mind to generate thought patterns, influence emotions, stimulate or diminish arousal and create images of a desired action is now better understood and has changed the way that many athletes approach their events. The major aspects of psychology that affect performance are motivation and anxiety. Athletes need to be able to prepare for major competitions, reduce tension and stress that may have cause a decline in performance, and maintain high-level performances over a long period of time.

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WEIGHT CATEGORY SPORTS AND WEIGHT LOSS PRACTICES

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Abstract: In weight category sports the athletes are classified according to the body weight (body mass). Combat sports like boxing, judo, wrestling, and other martial arts the competition are organized in range of body weight. Strength sports like weight lifting, power lifting, best physique competitions are also conduct in same. In these sports an athlete can compete within the prescribed body weight range categories. Weight loss practices are common in these sports. The athletes are losing their body mass to get advantage of competition with lesser body weight opponent. Chronic weight loss and rapid weight loss practices are common in these kind of sports to reduce their body weight/ body mass.

Keywords: body weight, chronic weight loss, rapid weight loss.

Introduction

Weight category sports are in which the body weight is dictated by a specific range of weight category and the athlete must compete within the range of weight category. The weight categories are used in especially combat sports, strength sports and in martial arts. Combat sports like boxing, judo, wrestling, kick boxing, karate the weight categories are used. The strength sports like weightlifting, best-physique, power lifting are the weight category sports. In these sports an athlete can compete within the prescribed body weight range categories. The weight categories may vary from event to events. Jack H Wilmore explains the athlete, the body weight is dictated by a specific range of category (range of body weight) within which the athlete must fall in order to be eligible to compete.

In combat sports and strength sports like weightlifting, powerlifting, best physique the athletes were classified according to the body weight (body mass). Then the matches conducted between equal body mass, strength. Weight categories are an attempt to reduce size, strength, range or leverage disparities between competitors.

In weight category sports the official weigh-in are conducted prior to the competition ensuring athletes meet weight requirements. The time available for recovery following weigh-in before competition will determine what degree of acute body mass loss can be implemented and reversed.

Many of the athletes are trying to reduce their body mass to get an advantage to compete with lesser body weight opponents (Emerson Franchini 2012)

Reid Reale et.al (2017) In weight-category sports athletes to try to gain advantage by competing in lower weight categories than their day-to-day body mass (BM). Increased exercise and restricted food and fluid intake are undertaken to decrease body water and gut contents reducing BM.

Weigh-in procedure

General weigh-in on the first day of tournament, and on the morning of the day in which specific competition is drawn. Minimum two hours before of the competition weigh-in to be done. Official weigh in can be attempted once. Athletes are allowed to wear swimming suit or undergarments during the weigh-in. If it is necessary weigh-in can be conducted naked. Official weighing scale is provided to check body weight prior to official weigh-in.

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Depending on the sport, many athletes will restrict energy intake to achieve their competitive weight and gain weight in the off season. The ultimate goal is to identify a healthy body weight that the athlete can maintain for most of the year, while minimizing the amount of weight that needs to be lost for competition. Generally in weight category sports Chronic Weight Loss (CWL) and Rapid Weight loss (RWL) practices are used by the athletes maintain their body weight.

Chronic weight loss (CWL)

The chronic weight loss or body mass management includes strategies implemented over several weeks or months. Through monitoring protein intake, timing of food intake and quality of food (low energy dense diet) the weight can be maintained.

In negative energy balance, when energy expenditure exceeds intake, the resulting loss in body mass is also accounted for maximum amount of body fat. It is commonly assumed that energy intake and energy expenditure can be independently modified, through changes in food intake and physical activity, to achieve energy balance.

Rapid weight loss (RWL)

Rapid weight loss is characterised by the reduction of a significant amount of body weight in a few days prior to weigh-in (mostly in the last 2-3 days).

Reducing food and fluid intake, increasing body secretions, and rising body metabolic rate to burn fat tissues are the core strategies for Rapid Weight Loss. Reducing food and fluid intake is the main strategy in Rapid Weight Loss. Athletes restrict their diet and reduce drinking fluids in the week preceding their weigh-in and gradually intensify restrictions as they get closer to the weigh-in date. In the last day before weigh-in, many athletes fast and some are so dehydrated they suck on ice cubes to prevent their mouths from excessive drying. Taking diet pills is another method for losing weight by blocking appetite and burning body fat mass.

Increasing body secretions, sweating and dehydration is another strategy of Rapid weight loss. Generally this method is used a few days before the competition or weigh-in. Human body contains 65% of water, which makes a good source for rapid weight loss by increasing sweating and dehydration.

About 65% of the human body is made of water, which makes it a good source for significant and temporary RWL by increased sweating and dehydration.

Some athletes use unusual techniques to reduce body weight before weigh-in including enemas, chewing gum to increase salivation and then spitting out the saliva.

Conducting strenuous exercise in the few days before weigh-in is another strategy for Rapid Weight Loss. Prolonged running or jogging at aerobic intensity in heated rooms or while wearing vapor-impermeable suits as the most common practice.

Conclusion:

In some sports competitions the body weight is restricted to participate. The athletes are classified with the range of body weight and an athlete is allowed to compete within the range of body weight categories. Generally athlete think that competing with lesser body weight opponent is advantage to get victory. Hence athletes trying to reduce their body weight/ body mass. Maintenance of body weight and performance is the greater task in body weight category sports. The athletes must not use prohibited methods to reduce body weight. It endangers an athlete's health and violates the spirit of sports.

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A STUDY ON BENEFITS OF YOGA FOR SPORTSPERSONS

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Abstract : The ancient art of yoga has become very popular ever since UN general assembly declared June 21st to be celebrated as International Day of Yoga across the world. Indian Government has started several schemes and programs to popularize yoga through AYUSH department, CCRYS, CCRYN and various other schemes. NCERT, NIOS and CBSE has also contributed in one academic form or the other to supplement to the cause of yoga. Sports today have become highly specialized field with a lot of scientific inputs and technological advances but human performance is still the prime concern. Lifestyle disorders due to stress, anxiety, tension have increased manifold and sports arena is also not devoid of stresses and strains today with cut throat competition at the elite level like Olympics, Asian games, Commonwealth Games etc. Indian athletes are required not only to perform to the best of their abilities but also we need to constantly upgrade ourselves and identify new and budding talent. Yoga offers a promising means to incorporate in sports training for increasing, mental abilities like focus, concentration, coping with anxiety. Yoga is safe for people of all ages and for males and females and is very cost-effective method of developing flexibility, functional strength and developing better reaction to frustration, self esteem. Sports persons from the sports like Archery, Shooting, Golf etc. which are considered as 90% mental sports can gain a lot of insights from yoga training
Keywords Sport, players are required to twist, turn, lunge, jump, run, stretch and bend,

Introduction

Yoga asana has become the latest cross-training tool to enhance athletic performance and reduce the risk of injury among a particular population besides other allied sports sciences like Anthropometry, Sports Physiotherapy, Massage therapy, etc. Due to lack of awareness and lesser availability of qualified and competent yoga trainers, just a few years ago, fitness enthusiasts had few options if they wanted to incorporate yoga into their training schedule. Yoga is now a mainstay as a preventive and health promotion tool on the program schedules of most health clubs, personal training studios, and corporate fitness centers. Even as army trainers have recognized yoga as a component of "Boot Camps." A boot camp is a rigorous training program specially designed for the young recruits that involve very high-intensity exercises under inhuman conditions of forests and deserts to improve soldiers' physical and mental tolerance level to survive during the war. Unlike many other forms of training, the practice of yoga may not give instant results. Still, in most cases, it does unfold over time to reveal many layers of physical and emotional benefits. More and more people are discovering how yoga can be used to improve sports performance—from increasing focus, flexibility, and balance to preventing common injuries and improving functional strength. The training program for young athletes can be planned by integrating a few static yoga poses into an existing fitness schedule.

Yoga has a variety of benefits for anyone who steps onto their mat. Whether you're a runner, cyclist, or lifter, yoga for athletes can help improve recovery, flexibility, focus, and concentration. One 2016 study of college athletes found that 10 weeks of yoga significantly boosted flexibility and balance compared with those who didn't do yoga. Research from 2020 pointed to the potential benefits of using yoga as part of a soccer program to help lower certain risks for injury.

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From gentle, spiritual practices to more physical ones, there are over a dozen different types of yoga that can all be adapted to fit your needs. This is why yoga for athletes has gone mainstream. All those benefits help on the field or on the bike and can also help build resilient, injury-proof bodies.

Depending on the sport, players are required to twist, turn, lunge, jump, run, stretch and bend quickly and suddenly. Sometimes even awkwardly. This increases the chances of a wrong step. Enter yoga to the rescue! Yoga teaches you to balance, be poised and disciplined. It makes your body fit enough to perform these moves. It also trains your mind to be patient and steady.

- Yoga helps prevent the strains and sprains: Yoga asanas help relax taut muscles. It also stretches and strengthens various body parts, opening the hips, back and chest. The different bends and stretches reduce the chance of wear and tear, muscle pulls and sprains.
- Yoga reduces your recovery time: Sleep and rest are not enough after a long and grueling physical session. Yoga helps you relax your tired body and mind in an effective and peaceful manner. This is because asanas are performed systematically and gracefully. This helps remove the tension in your body and enhances the chances of a quick recovery.
- Yoga enhances your sense of balance: Asanas like the vrikshasana or tree pose and virabhadrasana or warrior pose help develop the balance in you. Poise and balance are required physically and mentally. Yoga also helps you maintain posture and stability as is required in gymnastics, archery, and shooting.
- Yoga strengthens your mental resolve and stops the negative mental chatter. You believe you can go beyond your body with the strength of your mind.
- Yoga helps you conquer your demons: Sports is not a purely physiological exercise. There is a huge mental battle you must prepare for. Yoga helps you steel your nerves when you are tense.
- Yoga makes you intuitive and single-minded: Sports presents many occasions where you need to think on your feet. All your earlier preparations and predictions may go haywire and you may need to start from scratch. At such a time, you need a clear head to determine your next move. The discipline of yoga enables objective thinking.
- Yoga helps you control your breathing: Many sports require you to exert yourself. Your stamina depends on how much oxygen goes in, a function of the breathing process. Pranayamas teach you to control your breath. A handy tool when you are swimming underwater or eyeing the finish line of the marathon.
- Yoga helps you get in shape: It tones your body, making it lithe and flexible and hence, easier to train. Yoga also helps in weight loss, which helps you move faster.
- Yoga unites your inner and outer self: Yoga does more than just improve your speed and reflexes. The ultimate role of yoga in sports is, essentially, to unite the mind, body, and spirit. This, in turn, enhances your focus and precision.

How yoga brightens the dark side of sports

Ask any sportsperson what his or her biggest nightmare is and you will probably hear a unanimous chorus – INJURY! Nothing can be as difficult as sitting on the bench, or lying in a hospital when championships are underway. This is another reason for yoga and sports to go hand in hand.

Yoga helps you sport a smile on the road back

Even a few months out of the sports scene is equivalent to years of a setback in the world of sports. Your body needs time to recover to prevent recurrence, or worse, escalation. Many times, just resting may not be enough to get back to your original form and fitness.

With yoga, sports players are able to gradually tone and strengthen their body. Yoga also helps you deal with the mental pressure of missing out on some of the best playing years. It trains your mind to accept your situation and coaxes you to make a strong comeback.

There is no questioning the importance of yoga for enduring sports performances. However, do not look for overnight miracles. Anything worth acquiring takes time and patience. The benefits of yoga are similar; they manifest over time. You must be consistent and regular in your practice before seeking results.

YOGA HELPS ATHLETES, PLUS 7 OF THE BEST POSES TO TRY

1. DOWNWARD-FACING DOG

- Start on all fours, with your knees directly below your hips, and wrists a few inches forward of your shoulders. Point your fingertips forward and spread your fingers wide.
- On an exhale, tuck your toes, press into your hands, straighten your arms and legs, and lift your hips up toward the ceiling. Keep your hands shoulder-width apart and feet hips-width apart.
- Rotate your shoulders outward to avoid scrunching them. Keep your arms straight, and engage your biceps to keep your elbows from locking out. Look back at your toes and keep your ears in line with your arms.
- Hold the pose for one minute.

2. LIZARD

- From downward facing dog, inhale your right leg high. Exhale to step your right foot between your hands for a low lunge.
- Shift your right hand on the inside of your right foot. Toe-heel your right foot to the edge of your yoga mat. Keep your right knee aligned over your ankle. Plant your right foot into your mat.
- Keep your shoulders stacked over your wrists or drop down to your elbows (make the number 11 with your forearms) for a deeper stretch.
- Lengthen your back leg long and straight. Squeeze your glutes to keep your hips squared. Push the backside of your knee toward the ceiling to engage your leg muscles. Drop down to your back knee for a passive stretch.
- Gaze down toward your mat.
- Hold for a few breaths. Move through downward facing dog and repeat on the other side.

3. LOW LUNGE

- Begin in downward facing dog with your hands shoulder-width apart and your feet a few inches apart.
- Lift your right foot off the floor, bend your knee and drive it toward your chest, then step it between your hands.
- Lower your left knee on to the mat, and untuck your toes so the top of your back foot is on the floor.
- Keeping your front leg bent, lift your chest up and raise your arms to the ceiling.
- Press your hips forward, and keep your front knee pointing straight forward and in line above your ankle. Square your hips so both hip bones are pointing forward. Engage your core.
- Reach your arms high, and face your palms towards one another. Keep your shoulders pressed down.

- Stay here for one minute, then switch sides.

4. COBRA

- Start in a high plank position: arms straight, shoulders stacked over your wrists, body straight from head to heels.
- Keeping your core tight, bend your arms to slowly lower down to the floor, keeping your elbows close to your body. (Drop to your knees if needed.) When you reach the floor, untuck your toes so the tops of your feet are on the mat.
- With your hands on the mat under your shoulders, press into your palms and lift your chest off the floor using your arms and back muscles. Keep your elbows close to your sides, with a slight bend. Keep your legs straight, and press the tops of your feet into the mat.
- Open your chest and press your shoulder blades down your back away from your ears. Don't crunch your lower back (it should feel lengthened). Engage your legs by keeping them straight and pressed into the floor.
- Hold for at least 5 breaths.

5. CAT AND COW

- Start on all fours, with your knees under your hips and your hands under your shoulders. Keep your back flat, your gaze toward the floor, and your neck long.
- As you inhale, lift your tailbone and chest toward the ceiling while dropping your belly toward the mat.
- Keep your shoulders away from your ears, shoulder blades broad across your back, and your head in line with your torso.
- Exhale into cat pose.
- Exhale: Cat pose
- Start in cow pose.
- As you exhale, round your back, tuck your tailbone, and curl your chin toward your chest.
- Keep your shoulders and knees in place.

- Inhale into cow pose.
- Repeat this flow for up to 10 breaths, or longer if desired.

6. HAPPY BABY

- Start by lying down on your back on your mat. Bend your legs to place your feet flat on the mat.
- Hug your knees to your chest, reach for the backs of your thighs, and slowly move your knees apart, as you lift the soles of your feet toward the ceiling.
- Reach your arms between your legs, and grab the pinky-toe edges of your feet. Press into your feet as if you were standing on the ceiling.
- Pull your knees toward you as you lower your head, shoulders, and the backs of your arms toward the mat.
- Stay for up to one minute, then slowly bring your knees back together, and lower your feet back to the mat.

7. PIGEON

- Pigeon pose demonstration | yoga for athletes
- Start on all fours, with your hands shoulder-width and knees hip-width apart.
- Bring your right knee forward, placing it on the floor behind your right wrist.
- Slide your right ankle toward your left wrist, so your right shin crosses your mat at a comfortable angle.
- Extend your left leg straight back and slowly lower your hips to the floor. Keep the top of your left foot flat on the floor.
- Keep your hips level, with your weight evenly distributed between them (avoid sinking into your right hip).
- From here, you can either remain upright — keeping your hands on the floor in front of you, your chest up, and your core engaged — or you can fold forward, slowly walking your hands out in front of you and lowering your chest to the floor.
- Hold the pose for 5 to 10 breaths, then switch sides and repeat.
- To come out of the pose, tuck your left toes under, press into your hands, and slowly bring your right foot back to the starting position.

Conclusion

Depending on their goals and personality types and according to the training phase (meso, micro, or macro), athletes may prefer one form of yoga. For example, some athletes may prefer a style of yoga that emphasizes holding postures for longer durations, thereby improving upon isometric muscle contraction, while others may prefer a schedule for beginners focusing on optimal body alignment. Masters level athletes may be focusing more on spiritual aspects of yoga and to remain free from back bone-related disorders, blood pressure management, etc. In contrast, others may relate more to a style that emphasizes the physical component that helps them gain more core strength and hip flexibility. Women and injured might be seeking a gentler SAHAJ yoga style that focuses on aesthetics while doing stretching poses

for functional strength. Even if someone is clueless about what to achieve, they might get some insight into setting some SMART goals for themselves.

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PHYSICAL EDUCATION PLAYS A MAJOR ROLE IN NEP 2020

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Abstract: The National Education Policy 2020 announced by the Government of India have been focused mainly on holistic and multidisciplinary education. Higher Education Ministry of Karnataka Government has taken great step in the implementation of NEP 2020 and to be the first state to frame curriculum, where each student will be studying DSC, OE, and SEC in each semester till the 6th Semester and in 7th& 8th Semester will be studying on more the specific course. NEP 2020 will give opportunity to the students to have the wider knowledge on all the subject and student will be given more option to choose for their career . There are many silent features of the NEP 2020 which is based on the student centric that flexible curricular structure will enable creative combinations of disciplines to study , would offer multiple entry and exit points etc. As this NEP 2020 have been a boon to the Department of Physical Education as it is made mandatory subject and the job opportunity for the Physical Education professionals will be increased gradually. The Physical activity for all the students will gradually help to keep their health in the good condition and also it should give more importance with evaluation process in the SEC subject also which will be helpful for analyzing the students and also it help the students to be attentive in the subject.

Keywords:NEP 2020, Sports, Physical Education

INTRODUCTION:

The National Education Policy 2020 which was approved by the Union Cabinet in July seeks to restructure the education system of India and looks to address the structural issues in the Education System today. The national education policy was farmed in 1986 and it was modified in the year 1992 in India, for more than 3 decades.

- The Committee for preparation of the draft National Education Policy submitted its report to the Ministry on 31.05.2019.
- The Draft National Education Policy 2019 (DNEP 2019) was uploaded on MoE website and at MyGov Innovate portal eliciting views/suggestions/comments of stakeholders, including public. The draft NEP is based on the foundational pillars access, affordability, equity, quality, and accountability.
- A summary of the Draft National Education Policy 2019 was circulated among various stakeholders, which was also translated in 22 languages and uploaded on the Ministry's website.
- Around 2 lakh suggestions on the Draft National Education Policy received from various stakeholders. A meeting on Draft NEP 2019 of the Parliamentary Standing Committee on Education was held on 07.11.2019.
- The National Education Policy of India 2020 (NEP 2020), which was approved by the Union Cabinet of India on 29 July 2020, outlines the vision of the new education system of India.
- The policy aims to transform India's education system by 2040.
- Karnataka is the first state to implement NEP 2020 in India.

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ROLE OF PHYSICAL EDUCATION AND SPORTS IN NEP 2020:

The importance of physical education programs is to help students to develop a wide range of skills as well as to gives them the ability to use tactics, strategies and newer ideas to perform successfully both at home and school.It improves the learning aptitude of the students. Improves cardiovascular endurance, muscular strength, flexibility, mobility, and body consumption. Improves power, agility, reaction, time, balance, speed and coordination by use of all senses. It develops the skills of the children.Here are five reasons why physical education is an essential part of a well-rounded education:

- It encourages healthy habits. First let's state the obvious: kids who get daily exercise are healthier.
- It reduces stress.
- It encourages prosocial behavior.
- It promotes good sleep.
- It helps students concentrate.

PHYSICAL EDUCATION BENEFITS

Physical education prepares children to be physically and mentally active, fit, and healthy for life. Here are some of the benefits children receive from a quality Physical Education program:

- Improved physical fitness.
- Skill and motor skills development.
- Provides regular, healthful physical activity.
- Teaches self-discipline.
- Facilitates the development of student responsibility for health and fitness.
- Influence moral development, leadership and cooperation with others.
- Strengthened peer relationships.
- Physical education can improve self-confidence and self-esteem.
- Respect - PE helps you respect your body, classmates, and teammates.
- Experience in setting goals.

NEP 2020 PHYSICAL EDUCATION AT HIGHER EDUCATIONAL INSTITUTION IN KARNATAKA

The Curriculum Framework for Undergraduate programs in the university of Karnataka State under NEP 2020 for physical Education submitted the Proposal on 6th September 2021 under the Chairmanship of Dr. B R Ramakrishna, Subject Expert Committee: Physical Education, Sports, and Yoga & Vice-Chancellor SVYASA, deemed to be University, Bengaluru with the other 11 members in the committee.

The main intention was to educate/sensitize the graduate level students which containedAnatomy, Physiology, Kinesiology, Officiating & Coaching, Test & Measurement, Nutrition, Rehabilitation, Psychology, Sports Training, Sports Biomechanics, Methods of Teachings, History, Principles, and Practices of Yoga, Application of Yoga.

The framework was proposed as follows:

- Discipline Specific Core – Physical Education Sports & Yoga
- Open Elective (All the UG Programs)
- Skill Enhancement Course (All the UG Programs)

By this we can understand that the Physical Education, Sports & Yoga was given more importance in NEP 2020:

Discipline Specific Core – Physical Education Sports &Yoga (BA / B.Sc.) :

As it will be one the main subject to be opted which will be having 6 Credits in each semester and each semester 1 subject need to be studied which will have the Practical and Theory exam.

Evaluation Procedure: Total Marks : 150 Marks

Practical:50 (25 Practical & 20 Internals) | Theory:100 (60 Theory & 40 Internals)

Open Elective (All the UG Programs) :

Under this, 3 titles will be framed in each semester which will be opted by the students whichever the student is interested to study can be opted which will be having 3 credits per semester including both practical and theory exam.

Evaluation Procedure: Total Marks : 100 Marks

Practical:40 (20 Practical & 20Internals) | Theory:60 (40 Theory & 20 Internals)

Skill Enhancement Course:

This has been made mandatory for all the semesters i.e., 1st , 2nd , 3rd ,4th , 5th, and 6th semesters, which will have 1 Credit .The assessment will be done only through internal assessment as per the present guidelines.

Evaluation Procedure :

Total Marks	: 25 Marks
Attendance	: 15 Marks
Intermural Participation (Skill test / Inter College)	: 5 Marks
State / National / AIU Participation	: 5 Marks.

Conclusion:

NEP 2020 have become a boon to the Department of Physical Education where it is helping the younger generation to involve in the regular physical activity where the students actively participate in all the physical activity conducted in the college no doubt and has also made all the colleges to appoint the Physical Education professionals and also strengthen the department.

Recommendation :

The NEP syllabus needs to be formulated properly in concern of Skill enhancement course

- There should be a mandatory practical exam at the end of the semester and increasing the marks from 25 Marks to 50 Marks, where the students will take it seriously.
- If a student is taking a Discipline Specific Core as a physical education what is the advantage he will be getting should be mentioned clearly if not no students will be opting for the DSC.
- The staff patron for the Department of Physical Education in college should be released by the higher authorities.
- As there will be the theory and Practical subject to be handled the guidelines should be released by the higher authorities.
- As Physical Education staff should also conduct the Intramural activities and Extramural activities, it will be easier if the staff recruitment is based on the practical and theory separately.

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A STUDY OF MOTIVATION OF ASPECTS WOMEN'S FITNESS

MANOJ C. KOPARDE♣

INTRODUCTION

Exercise is defined as any bodily activity that enhances or maintains physical fitness, overall health and wellness. It is performed for various reasons that include strengthening of muscles and cardiovascular system, to develop sports skills, weight maintenance or loss and finally just for enjoyment of being fit.

PURPOSE OF THE STUDY

It is very clear that different sections of society indulge in vigorous physical activities for various reasons, that is, they expect some outcome of 'being fit'. This reason for 'being fit' is a result of type of motive – internal or external. However, in the process of 'getting fit' the motive may shift from external to internal or vice versa. But at a given point of time who has what kind of motive in our society is not empirically known. Therefore the purpose the study was to find out empirically the type of motive for getting or maintaining 'fitness' among various sections of the society –women, the athlete and non athlete, married and unmarried, the rich and the poor.

STATEMENT OF THE PROBLEM

Since it is not empirically known whether internal or external motive makes people to engage in various forms of fitness activities in order to get fit the following questions arise.

1. Does form of motivation to involve in fitness activities differ for 'women'?
2. Do married men & women have a different motivation form for fitness activities than the unmarried?
3. Do the affluent differ in their form of motivation for fitness activities than those of 'not so affluent'?
4. Do older generation, who were sportsmen, are motivated differently from those who were not sportsmen?

HYPOTHESES

Based on the arguments made earlier, the following hypotheses were made.

1. There is no significant difference in the form of motivation to involve in fitness activities among low, middle and high economic groups.

2. There is no significant difference in the form of motivation to involve in fitness activities between those who were sportspersons and those who are married and those who are not married.

REVIEW OF LITERATURE

Capdevila, L. Ninerola, J. and Pintanel, M. (2004) studied the motives for exercise among 720 Spanish males and females (aged 13 to 63 years). The aim of the study was to compare the motivation for exercise between regular exercise doing people and sedentary people. Exercise motivation inventory-II questionnaire in Spanish language was used to survey. The results suggested that the people who exercise regularly show higher intrinsic motivation than sedentary people.

Gillison, F.B., Standage, M. and Skevington, S.M. (2006), who were interested in the prevention of child and adolescent obesity, investigated the effect of exercises goals on exercise motivation, leisure time exercise behavior and quality of life 580 British school children were the subjects. Results of structural equation modeling revealed that adolescent perceiving themselves to be overweight and pressurized to lose weight, endorsed extrinsic weight-related

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goals for exercise. Extrinsic goals negatively predicted, whereas intrinsic goals positively predicted, self-determined motivation, which in turn positively predicted quality of life and exercise behavior. Furthermore, self-determined motivation partially mediated the effects of exercise goals on reported exercise behavior and quality of life. Therefore they propose to the teachers and parents to orient the young towards intrinsic goals in an attempt to enhance future exercise behavior and quality of life.

METHODOLOGY

The main purpose of the study was to survey the motivation for exercise among those who regularly exercised in Dharwad city (walking, jogging, laughing club, recreational sports etc.). Selection of subjects for the study, the research tool, the procedure followed in collecting data for the study, data transformations, analysis of the data are described in the following sections.

SUBJECTS

For the purpose of the study 210 adult women of Dharwad city were randomly approached and requested to respond to the questionnaire. Additionally the following information was also sought: 1. Marital Status, 2. Income, 3. Sports Participation.

Subjects above 25 years of age were approached for the purpose. The research scholar and few volunteer selected people were walking, jogging, yoga, gym, aerobics, laughing club; and recreational sports.

TEST ADMINISTRATION:

The survey was administered at different locations of Dharwad city, such as Karnatak University ground, Karnatak Arts and Commerce College ground, K C Park, and MVAS Yoga & Stress Management Centre. The questionnaires were administered and recorded in the morning session between 6:30 AM to 9:00 AM.

DATA TRANSFORMATION AND ANALYSIS:

As described earlier, the questionnaire contained 30 items in all that measured either internal or external motivation. Each item was scored using a 7-point Likert scale. The scores on the items 2,7,11,18,22,26,29 were pooled to measure interest & enjoyment; and the scores on items 3,4,8,9,12,14,25 were pooled to measure competence (both internal motivation). Similarly, the scores on items 5,10,17,20,24,27 were pooled to measure physical appearance and the scores on items 6,15, 21,28,30 were pooled to assess social contact (both external motivation). Since the fitness related items namely, 1,13,16,19 & 23 were both intrinsic and items, a close perusal of the item statements gave an insight into the nature of each statement. It was therefore decided to segregate the items that revealed intrinsic motive from extrinsic motive. Item statements 1,13, and 16 were classified as intrinsic and 19 and 13 as extrinsic. Finally all the items that assessed intrinsic motive were summed to give comprehensive idea of intrinsic motive and all the items that assessed extrinsic motive summed to give a comprehensive idea of extrinsic motive. Thus the 30 items were reduced to two comprehensive variables such as 'Internal Motivation' and 'External Motivation'.

Secondly, based on some personal information sought, the following categorical variables were derived, which are furnished in table-1.

Table 1. List of Categorical (grouping) Variables Derived

Sl. No.	Basis of Categorization	Categories
1	Gender	Female
2	Marital Status	Married and Unmarried
3	Income	Low income; Middle income and High income
4	Sports Participation	Sportsperson and Non-sportsperson

In the case of categorizing income groups those who earned less than Rs.30,000/- were treated as low income group; those who earned above Rs.30,000/- but below Rs.40,000/- were

treated as middle income group and finally those who earned above Rs.40,000/- were classified as high income group. Secondly, in the case of sports participation only those subjects who were above the age of 40 were taken into consideration, that is only those middle & old aged subjects were classified as sportsperson and non-sportsperson based on the fact that they were in fact sportsperson during their younger days (high school and college).

STATISTICAL ANALYSIS

The two dependent variables derived, namely 'Internal Motivation' and 'External Motivation', were subjected to independent samples 't'-tests except in the case of income groups where there were three groups. Therefore in the case of income groups one way ANOVA was used.

RESULT

Table-01: There is no significant difference in the two forms of motivation to involve in fitness activities between those who are married and those who are not married.

To test the above hypothesis the sample was divided in to married and unmarried groups. Presented in table-1 are the means and standard deviations of intrinsic and extrinsic motivation of subjects who are married and unmarried, and obtained 't'-ratio. The insignificant obtained 't'-ratio suggests that there is no difference in either extrinsic motivation or intrinsic motivation between married and unmarried individuals. Therefore the hypothesis which stated that married and unmarried individuals do not differ in the two forms of motivation is not rejected.

Table 1. Mean and Standard Deviations of Intrinsic and Extrinsic Motivations of Subjects who are Married and Unmarried, and Obtained t'-ratio.

From ofMotivation	Married	Unmarried	Mean difference	t-ratio
Intrinsic	100.35±12.47	100.37±12.07	0.02	0.012
Extrinsic	75.45±10.99	73.94±9.96	1.51	1.023

Table-2,3&4: There is no significant difference in the two forms of motivation to involve in fitness activities among low, middle and high economic groups.

To test this a fourth hypothesis the sample was divided in to 3 groups namely low Income group, middle income group and high income group. Since there were more then two groups involved analysis of variance was restarted and presented in table-5 mean and standard deviation of intrinsic and extrinsic motivation of low, middle and high income groups have the high income group appear to be more intrinsically motivated than the two lower income groups. Farivasals of ANOVA tables (table-8&9) reveals that the observed difference in both internal and external motive are not significant enough.

Table-2 Therefore the hypothesis which stated that there is no significant difference in two forms of motivation to involve in fitness activity among low, middle and high economic groups was not rejected.

Table-2. Mean and Standard Deviation of Intrinsic and Extrinsic Motivationof Low-, Middle- and High-income Groups

From of Motivation	Low income group N=38	Middle income group N=48	High income group N=24
Intrinsic	97.6±13.92	99.44±12.98	100.42±13.82
Extrinsic	73.76±11.39	75.94±9.82	75.04±13.43

Table -3. Source of Analysis of Variance of Internal Motivation of low, Middle and High Income Groups

Source	Sum of Squares	Df	Mean Squares	F-ratio
Between	131.24	2	65.62	0.36
Within	19494.73	107	182.19	
Total	19625.96	109		

Table-4. Source of Analysis of Variance of External Motivation of low, Middle and High Income Groups

Source	Sum of Squares	Df	Mean Squares	F-ratio
Between	100.35	2	50.18	0.398
Within	13482.64	107	126.01	_
Total	13582.99	109	_	_

Table-5: There is no significant difference in the two forms of motivation to involve in fitness activities between those who were sportspersons and those who were not when they were young.

To test the above hypothesis subjects were above 40 years were chosen for analysis. Thus subjects 40 years of age were then classified in to sportsperson and non-sportsperson. The intrinsic and extrinsic motivation score were ones again subjected to 't'- test the results of the analysis is presented in table-8.

Table 5. Mean and Standard Deviations of Intrinsic and Extrinsic Motivations of Subjects who were Sports-persons and non-sports persons and Obtained t'-ratio.

From of Motivation	Sports-persons	Nonsports-persons	Mean difference	t-ratio
Intrinsic	98.91±12.89	97.46±13.27	1.46	0.568
Extrinsic	75.69±12.16	74.76±9.37	0.93	0.431

A close perusal of the difference between means suggest that the individuals, who were sportsperson intrinsically more motivated than those were not sportsperson. However the observed differences are not significant. Therefore the hypothesis which stated that there is no significant differences in two forms of motivation to involve in fitness activity between those who were sportsperson and those who were non-sportsperson is not rejected

Motivation Scores of sports person and non-sports person.

CONCLUSION

Based on the results of the study it was concluded that the younger individuals below the age of 40 year are intrinsically motivated than the individuals above age of 40 years. Similarly healthy individuals are also intrinsically motivated than un-healthy individuals. However the age and health condition did not matter as for as external motivation was concerned. \

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AN ANALYSIS OF GROUP COHESION AMONG FEMALE INTER COLLEGIATE ATHLETES OF VARIOUS GAMES

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Introduction:

The idea of cohesion has something to do with how strongly people are attached to a group as well as their tendency to remain part of a team or to "stick together". Team-cohesion is attained by motivation and combined practice coupled with combined efforts for the success of the team. Team-cohesion therefore plays the most important role in performance and social environments of the team.

Cohesion is an instrument which is unique to the game of baseball was shown to have a nice inside consistency. Indeed in spite of the fact that cohesion was predictable as a multi-dimensional idea, it is difficult to progress testable expectations for approving.

Nowadays, sport activities are more and more demanding and performance based. The sport group's theory has developed, and most researchers think that a group with high cohesion is more likely to be united and committed to success than a group with low cohesion (Jarvis, 2006).

Having a high group cohesion is considered to be important and would lead to a better performance. The relation between cohesion and performance was studied by many researchers; and most concluded that "the connection between cohesion and performance is reciprocal". Hence, high cohesion increases the group's performance while successful performance increases cohesion. However, both task and social cohesion are related to group performance (Carron et. Al., 2002).

In this study the researcher tried to understand the level of group cohesion among female intercollegiate athletes.

Methodology

In this study the researcher selected 72 female athletes who were participated in intercollegiate tournaments in hockey, volleyball, kabaddi, kho-kho, handball and throwball events.Group Environment Questionnaire (GEQ) (Carron et al., 1985) was administered to the subjects. The questionnaire contains four variables of cohesion.

Analysis

Following table represents the Mean value of group cohesion variables among female athletes of various group games

Games	ATGS	ATGT	GIS	GIT
HOCEKY	42.99	10.78	66.75	64.95
VOLLYBALL	52.55	11.59	73.25	53.67
KABADDI	46.47	10	57.75	52.65
KHOKHO	39.32	5.58	53	40.56
HANDBALL	38.64	15.95	58.5	36.09
THROWBALL	38.87	17.91	60.75	46.86

Above table shows that mean value of Individual attraction to group-social (ATGS) in various sports participants. It is 42.99(hockey), 52.55 (volleyball), 46.47(kabaddi), 39.32

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(khoKho), 38.64 (handball), 38.87 (throwball). The volleyball plyers showed higher attraction to group social (ATGS) among other five events.

The mean value of Individual attraction to group- task (ATGT) in various sports participants are 10.98 (hockey), 11.59 (volleyball), 10.00 (kabaddi), 5.58 (kho Kho), 15.95 (handball), 17.91 (throwball). The throwball plyers showed higher attraction to group task (ATGT) and khokho players shows less individual attraction to group task.

The mean value of Group Integration- social (GIS) in various sports participants are 66.75 (hockey), 73.25 (volleyball), 57.75 (kabaddi), 53.00 (kho Kho), 58.5 (handball), 60.75 (throwball). The volleyball plyers have higer Group integration among other event participants.

The mean value of Group Integration task (GIT) in various sports participants are 64.95 (hockey), 53.67 (volleyball), 52.67 (kabaddi), 52.65 (kho Kho), 40.56 (handball), 36.09 (throwball). The hockey plyers shows higher Group integration (GIT) and throwball players are less.

In general it was there was no signeficant difference exists between varioues groups players.in individual attraction to group social. To substantiate this interpritation it was found that, sports person of volleyball players were the highest Individual attraction to group social. There was no signeficant difference exists between varioues groups players.in individual attraction to group task.To substantiate this interpritation it was found that, sports persons of throwball players were the highest Individual attraction to group task, It was evident from the result that, In general it was there was no signeficant difference exists between varioues groups players in group integration-social. To substantiate this interpritation it was found that, sports persons of volleyball players were the highest group integration social. It was evident from the result that, In general it was there was no signeficant difference exists between varioues groups players in group integration-task. To substantiate this interpritation it was found that, sports persons of hockey players were the highest group integration task.

Conclusion

The study is concluded that the group chohesion is important in group games and it varies among female athletes in different group events at inter college level.

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A REVIEW ON COMPUTER TECHNOLOGY IN SPORTS

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Abstract : Technology has affected all aspects of existence. Computers have become an integral component of daily life. The importance of using computer technology into sports training, as well as its future development trends, in order to enhance the technical content and effectiveness of sports training. Computer science in sport is an interdisciplinary discipline whose purpose is to bring together the theoretical and practical fields of sport science and physical education. Indeed, the introduction of sport technologies has reshaped the structure of sport. Due to this reason, sport analysis has become one of the most important contributions in analyzing and improving an athlete's performance level. As a result, the focus of this review paper briefly introduces the impact of technology on various sports, On this basis, the paper discusses the few technologies which are being used in major sports like cricket, tennis, golf etc. Also this review article will serve as a basis for those working in the domain of sports research.
Keywords : Computer, Computer technology, Sports, Artificial intelligence

INTRODUCTION

Computers have revolutionized our lives in ways we could never have imagined, and they continue to have a significant impact on human existence and behavior. We are all so dependent upon technology that we can't imagine life without it. Computer technology provides advanced facilities for our life and also creates effective learning, production, control and utilization. Computers have made a significant contribution to science, technology, education, society, entertainment, access to information, gaming and many other sectors. While sports are recognized for being primarily a physically demanding profession, they also use computers on a daily basis. The devices are used in a variety of ways to aid sporting organizations in achieving their objectives. It's difficult to picture a sports sector without computers and it would be lot less efficient and enjoyable. Athletes use computers directly, but coaches, officials, the media, and other support workers also need them. Also computer technology can be used in a variety of ways in order to help with a sportspersons success. To name few of the areas of sports where computer technologies being used are Storing and Seeing Video, Statistical Data Storage, Equipment Development, Sports Media etc.

Literature Review

Sport world today is getting technological by combining natural athletic talent with advanced analytics and artificial intelligent to produce the best possible outcomes on the playing field of sports.Technology in sports is a technical means by which athletes attempt to improve their training and competitive surroundings in order to enhance their overall athletic performanc [1]. Kaur [2] states that Computer science in sport is an interdisciplinary discipline whose purpose is to combine theoretical and practical features and methodologies from informatics and sport science. Using the internet one can update the recent technological improvement in sports training, changes in rules, to download the rules from the internet authorities, to do research and so on [2].

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According to the Study conducted by Keerthana et al [3]. despite the astonishing performance of deep learning approach in various computer vision application such as voice recognition, text recognition it also achieves outstanding results in sport video analysis in recent years [3]. Rana [4] opined that computers help gauge an athlete's performance during a specific training regimen. Trainers for sports teams can put a player's height, weight and body model into a computer and develop a training program that best fits her needs. Trainers can also put sensors and equipment onto a player during training, allowing the computer to register results while the player trains [4]. Tan et al [5]. proposed that with the recent advancement of technology, computerised motion recognition and analysis are gaining increasing attention of many researchers as a promising solution for quantitative sports performance analysis. Its application in sports, particularly in badminton, certainly bears a bright outlook for further research and development [5].

Artificial intelligence technology can make the audience capture the wonderful moment of sports competition, can also make a more fair and objective evaluation of sports competition, to a certain extent reduce the disputes between referees and athletes. Therefore, it is of great significance to study the application of artificial intelligence technology in sports competitions [6]. Wang [7] studied 3D simulation to construct a sports competition venue, and focuses on analyzing the sports scenes of the athletes in the sports competition venue based on ant colony algorithm and artificial intelligence, and restores the competition venue and athletes through simulation, in order to improve the reduction degree of sports competition [7]. Zhang et al [8] has worked on saving energy while playing basketball worked on Hidden Markov hybridised with Motion Model (HM-HMM). HM-HMM is computer evaluation system which is widely used in time series data mining and in the fields of image processing, voice recognition, and natural language processing in the fields of machine learning [8].

Hao and pandey [9] presented 3D teaching motion positioning method based on machine vision. The machine vision technology is used to solve the problems of low positioning accuracy and long positioning time in the traditional motion three-dimensional teaching method [9]. Zhu [10] proposes a sports-assisted evaluation system that use deep learning algorithms to analyse human posture and provide a smart training platform for sports trainers. And notion of "close Angle" to address motion detection errors caused by discrepancies. The joint angle of important portions of the human body during movement can be calculated using the cosine angle [10]. Islam et al [11] model which can identify different cricket bowlers based on their bowling actions using transfer learning. Chauhan and Bhatia [12] worked computer vision techniques, recognize numerous behaviors that occur during a cricket match, such as important catches, LBW, No ball, Wide Ball, and so on.

Technologiesused in sports

i. **Badminton** : Computer 3D software can be used to create a 3D model of the human body.The badminton training steps and batting movements can be demonstrated repeatedly by the model. The demonstration is recorded as a multi-media video. Multimedia videos provide inspiration for students [13]. In the badminton training, the application of video analysis technology to assist the badminton teaching, mainly to solve the problem of the relationship between the athlete's visual-ontologymuscle movement, analyze the success and failure of the badminton competition and improve Auxiliary explanation of the effectiveness [14].

ii. **Tennis**: The adoption of Telemetry sensors is another significant advancement in tennis. These sensors are used to assist players in maintaining track of their game and their technique through real-time data analysis. The information comes directly from the player's racquet, rather than from what the player feels, leading in an

accurate analysis. Hawkeye technology is through the trajectories of the high-speed cameras to capture the tennis, and through the digital imaging displays it on the electronic screen, thus provides the more impartial decision basis for the game[15].

iii. **Golf** :Swing analysis is one example of how technology is used effectively in golf. You can utilise video analysis software in the traditional method. The use of a sensor that may be mounted to the club to measure a variety of metrics is a more high-tech way of swing analysis [16]. Swing tempo and speed, as well as club head trajectory and speed, may all be measured. These devices connect to phone apps to provide a variety of additional swing analysis capabilities [17].

iv. **Football**: Goal line technology one of the most well-known and contemporary innovations in football. To assist the referee, it is used to detect if a ball has passed the goal line [18]. The introduction of decision-aid technology not only reduces the authority of match officials but also undermines the ability of referees to make the right decisions during the crucial moments of a match [19].

v. **Cricket**: Umpires had a difficult time deciding on run-outs and stumpings. Anyone can't make a decision on the field that takes complete concentration.To solve the umpires' difficulty, a new technical invention was created: "LED Stumps and Bails." These were the stumps that were notorious for glowing as soon as they were removed from the stumps [19]. Hawk-Eye is a complex computer system used in cricket to track the path of the ball visually. After tracking the ball's movement, the system is capable of projecting its continuous route and visualising it in video [20].

Conclusion

Computer techniques have become an integral component of the overall physical education and sports environment, apart from transmitting and televising sporting events. Computer applications in the fields of research, exercise physiology, fitness prescription, body composition, biomechanics, and sports psychology assist physical education teachers and sports trainers in making teaching and coaching more interesting and improving sports performance. In sports, computer techniques produce excellent results and also helps to save time. There is no possibility of errors in sporting event results because it is based on fair and correct assessment. As a result, there is a need to understand and become familiar with computers, who is relate to sports and physical education.

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A CASE STUDY OF SUCCESS OF PRO KABADDI LEAGUE AND ITS CONTRIBUTION FOR THE REVIVAL OF THE SPORT

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Abstract: India is a huge country with nearly 1.35 billion populations and is a potential market for the success of various sports. But only cricket has grown to its fullest potential while other sports have struggled with financial constrains and public support. This article studies and examines the factors that contributed for the revival of Kabaddi in India and how it achieved commercial success and grabbed the media and public attention despite the country being cricket crazy.
Keywords: Pro Kabaddi League, Entertainment, Commerce, Promotion, Cricket.

INTRODUCTION

A common challenge for any indigenous sport to survive in India is the popularity of cricket. In terms of popularity, media attention, public support and commercial success, Cricket has occupied religion like status and other sports have disappeared to oblivion without any support. If there is one indigenous sport to not just have survived but also thrived on success, then it is Kabaddi.

Kabaddi is an indigenous sport in India and it is in our DNA. It is believed to have originated in Hanuman VyayamPrasarak Mandal, Amaravati, Maharashtra and royal members used to play the sport to display their strength. Physical Fitness and Skills are needed for the sport have added certain machismo to the sport. Hence, it is a popular sport in rural and urban India. Some Metropolitan cities like Mumbai are believed to have hundreds of Kabaddi Clubs. But the sport always took backseat and never received the financial support or much public support to thrive until Pro Kabaddi League was launched in 2014. Several Kabaddi federations like The Asian Kabaddi Federation, The Amateur Kabaddi Federation of India (AKFI) and The State Amateur Kabaddi Federation of India could do little for the expansion of the sport. Pro Kabaddi League filled this void and helped in making Kabaddi a popular sport.

Pro Kabaddi League or PKL as it is popularly known across the globe is a professional Kabaddi league which reignited the passion for the sport across the length and breadth of the country. It was a brainchild of Charu Sharma who envisioned the league after witnessing the enthusiasm for Kabaddi in the 2006 Asian Games. The PKL is modeled after Indian Premier League and currently there are 12 teams from all over the country and they played 137 matches in the recently concluded 2021-22 edition.

CONTRIBUTION OF PKL FOR THE GROWTH OF KABADDI

Since its inception, the popularity of PKL is on a steady rise. Many factors have contributed for the new found enthusiasm for Kabaddi India. It has been the second most popular franchise-based sport in India. Today, its popularity is on par with cricket and the conspicuous indications are clear that Kabaddi can soon become synonymous of sports in India just like Cricket has become. The new avatar of Kabaddi has ignited interest in youngsters who aspire to build a career in Kabaddi and become professional players.

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PLAYER INCUBATION PROGRAMS

A sport becomes successful and thrives based on how many youngsters choose the sport as a career option. Earlier, though India won Seven Asian Gold Medals and two editions of the Kabaddi World Cup, hardly any Kabaddi players were recognized by any fans. Thanks to PKL, from 2014, many kabaddi players like Pawan Sehrawat, Sandeep Narwal, Manjeet Chillar and Naveen Kumar have become superstars and they have gained huge fan following across the globe.

PKL has initiated **"Future Kabaddi Heroes Programme"** to search and nurture young talents. Many under-22 talents such as Naveen Kumar, Rohit Gulia, SachinTanwar, and Surender Singh are discovery of this program. They have now established themselves as stars in PKL.

PKL has given opportunities for young talent from independent Kabaddi tournaments like **K7.** The league, PKL, has expanded team numbers from eight to twelve is a testimony for the increasing number of youngsters for choosing Kabaddi as a career option.

STAFF AND SUPPORT MANAGEMENT

Thanks to PKL, there is an increasing requirement of staff and support management. For example, every PKL team has coach, assistant coach, nutrition experts, physiotherapists and video analysts. Now, experts in these areas are in demand and they can find employment in the area they have passion for. Also, PKL has triggered a wave of Kabaddi Clubs across the country. Local kabaddi tournaments and other relate events are held and now Kabaddi is played in professional set up at school and junior level.

FINANCIAL STATUS

In India, except cricketers, players of any other sports never have financial security. As a result, every youth wanted to become a cricketer. This resulted in scarcity of talent in other sports. PKL has changed this situation for Kabaddi players. Many popular players of the game have received remuneration above one crore. For an instance, Pradeep Narwal received a pay check of rupees 01 crore 65 lakhs from UP Yodha. Many other players have received payment anywhere between 50 to 80 lakhs. With the league's growing popularity year after year, these players and many youngsters will see both stardom and financial security.

RISE TO GLOBAL FAME

Popularity of Kabaddi is meteoric since 2014, the year Pro Kabaddi League was launched. According to "Broadcast Audience Research Council of India" The inaugural edition was watched 435 million viewers while the seventh season received 1.2 billion impressions. This significant rise clearly shows the growing popularity. The official broadcast partner Star Sports has acquired 74% stake in the league's parent company Mashal Sports. This has resulted in wider viewership of Kabaddi across the globe.

FORMAT

The second significant factor is the slightly modified format. All sports have changed or tweaked their rules to popularize the sport in the modern times. So has Pro-Kabaddi League. The playing format, rules and other necessary changes have been made for the success of the league. Firstly, Twelve-city league played in "Caravan format" travelling together to all venues. Also a few new rules have been added to popularize the sport. For example, playing two 'empty' raids would result in "do or die" situation. This situation forces the raider to score a point or get declared out.

Another addition is the concept of "super tackle". Here, if defensive side has three or fewer players, tackles scored get two points instead of one. These tinkers have resulted in grabbing the TV audience and create uncertainty over the result till the end. These factors have contributed for the interest in the sport.

Also, PKL has made other significant changes to the way the sport is played. For example, earlier Kabaddi was played on mud court while PKL is played on mat. Technology is

used to follow the playing time, reviews and appeals for accurate decisions. These minor tweaks and adoptions have resulted to the popularity Kabaddi.

CELEBRITY OWNERS OF PKL TEAMS

The major reason for the success of PKL is the team ownership. It boasts an envious list of owners ranging from movie stars, business tycoons and media giants. Their presence has brought in a lot of media and public attention to the league. The owners of these twelve teams range from popular actors such as Abhishek Bachchan, Akshay Kumar, and well-known business tycoons such as Goutam Adani, Kishor Biyani and other media mavens. These owners have their own fan base and their following the game has increased public and media interest in the league. Also, it must be noted that these owners are known for their media management skills and promotional activities. All these factors have immensely contributed in creating buzz about PKL.

SPONSORSHIP FOR SUCCESS

For any sport to thrive, sponsorship is very vital. Without sponsorship, neither the sport survives nor do budding players choose the sport. Thanks to the incredible support PKL received from the beginning, its success has been spectacular. Star Sports has been broadcasting partner while VIVO has been title sponsor. Other Associate Sponsors like TATA Motors, Dream11, mfine, BYJU's and Mutual Funds and many other partners have ensured the success for PKL. This certainly will have ripple effect on popularity of Kabaddi and will benefit players and team management involved in the sport.

CONCLUSION

The study shows that Pro Kabaddi League is not just a commercial entity but also has immensely contributed for the revival of the sport for modern society. The success and operations of PKL has to be a model for other sports and federations, so that those respective sports flourish and their players get the recognition and social security they deserve.

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EFFECT OF YOGIC EXERCISES ON AEROBIC CAPACITY (VO2 MAX)

Dr. JYOTI .A. UPADHYE♣

Abstract : Yoga is considered to be a precise decent exercise for keeping good fitness. It products reliable physiological variations and have complete scientific foundation. It is demanded that yoga performs recover several cardiorespiratory fitness factors. Aim: To find the result of short term Yoga practice on aerobic capacity (VO2 max.) Objective: To measure aerobic capacity (VO2 max.) Before and after Yoga practice. Physical and Methods: The present study was conducted on 60 M.B.B.S. students (40 males and 20 females) within the age group of 14-16 years. VO2 max was measured using bicycle Ergometer in our 'Exercise and Sports Physiology' laboratory. It was recorded at start of study (baseline) and then after 12 weeks of yoga therapy. Results: For both the genders VO2 max was found to be increased after yoga therapy for 12 weeks. Conclusion: the present study concludes that yoga practice can be used to perk up cardiorespiratory fitness.

Keywords: Yoga, VO2 max, Cycle ergometer

Introduction

Now-a-days, more persons are interested in 'physical fitness' than any time before. Physical fitness depends mainly on cardio-respiratory endurance of an individual. VO2 max (maximal oxygen uptake / maximal aerobic power/ aerobic capacity) is widely accepted as the best measure of cardio-respiratory endurance. VO2 max refers to the level of oxygen consumption beyond which no further increase in oxygen consumption occurs with further increase in the severity of exercise. It is expressed as 'millilitres of oxygen used in one minute per kilogram of body weight' (ml/kg/min). VO2 max is probably the best physiological indicator of a person's capacity to continue severe work. In sports, where endurance is an important component in performance, such as cycling, rowing, cross-country skiing, swimming and running,

Materials and Methods

In the present study, a total of 40 High School. Students (20 Girls and 20 Boys) in the age group of 14-16 yr. participated voluntarily. All the volunteers were fully informed about the study and written informed consent was obtained. The volunteers with past or present history suggestive of cardiovascular or respiratory illness or any other systemic illness, history of major Materials and Methods In the present study, a total of 40High School students (20 Girls and 20 Boys) in the age group of 14-16 yr. participated voluntarily. All the volunteers were fully informed about the study and written informed consent was obtained. The volunteers with past or present history suggestive of cardiovascular or respiratory illness or any other systemic illness, history of major surgery in the recent past, family history of asthma or allergic diseases, history of cigarette smoking, tobacco chewing, alcohol intake etc., subjects with previous experience of YOGA training or any other active sports training were excluded from the present work. After being selected in the study, detail history was noted from each volunteer. All the participants were instructed not to do any other physical exercises like sports, athletics or resistance training during the present study. Then height, weight and BMI were recorded. VO2 max was measured using A strand-Rhyming cycle ergo meter test in Vijayapur. The subject is asked to pedal at 50 revolutions per minute and try to keep it constant for at least 6 minutes. The continuous monitoring of heart

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rate by counting the pulse for the last 10 seconds of each minute of ride was done. Load was adjusted such that heart rate should rise to a level in the target range (125 to 170 beats /min) and then this level was maintained relatively constant during last few minute of ride. Final count was made during last 10 seconds of the sixth minute of ride. Estimation of VO2 max was done by using modified A strand Rhyming nomogram.2 After measuring world class athletes typically have high VO2 max.1 In baseline VO2 max, students were trained by experts recent times, medical fraternity is much attracted towards beneficial effects of Yoga. It is claimed that yoga practices improve various cardio-respiratory fitness parameters. In view of this, the present study was undertaken to see whether yoga has any effect on VO2 max. Also, to note the difference, if any, in the values of VO2 max obtained before and after yoga practice and to discuss the results in view of the results obtained by other workers from Yoga Kendra. Then they performed the Yoga Practice (Asanas & Pranayama) in the evening for one hour, six days in a week, for 12 weeks under expert's observation. Yoga practice consisted of - Prayer & Omkar Recitation (5 minutes) followed by in sequence Asanas like Naukasana, Matsyasana, Bhujangasana, Shalabhasana, Dhanurasana, Shavasana (for next 30 minutes), then breathing exercises like Kapalbhati and Yogic Shwasan (for next 10 minutes), then followed by Pranayama like NadiShuddhi, Bhastrika and Bhramari (for last 15 minutes). After 12 weeks VO2 max was measured again and Data was analyzed statistically using 'z' test separately for males and females using SPSS software. Stimulation of parasympathetic activity during Yogic Training. Conversion of some of the Fast Twitch muscle fibres into Slow Twitch muscle fibres during yogic training. Slow twitch fibres have high.

Results

Table 1: Effect of Yogic Exercises on VO2 max.(ml/kg/min) in

Test	n	BeforeYogaMean±S.D.	AfterYogaMean±S.D.	Pvalue
VO_2max	40	30.33±3.50	33.1±4.38	*P< 0.001

Table 2: Effect of Yogic Exercises on VO_2 max (ml/kg/min) infemales

Test	N	BeforeYogaMean±S.D.	AfterYogaMean±S.D.	Pvalue
VO_2max	20	27.75±2.27	30.43±2.23	*P<0.001

(n= No.of subjects,*=highlysignificant)

Table 1 shows change in VO2 max in male subjects whereas Table 2 represents change in VO2 max in female subjects. Both the groups show statistically significant increase in VO2 max after Yogic Exercises.

Discussion

V O2 max is very importance for physical performance as well as for the health in general. It has been used as an index of cardio respiratory fitness. V O2 max can be determined using variety of exercises that activate the body's large muscle groups, provided the intensity and duration of effort are sufficient to maximize aerobic energy transfer. The usual exercises modes include treadmill running, bench stepping and stationary cycling. High V O2 max requires integration of high levels of pulmonary, cardiovascular and neuromuscular function. So, V O2 max is a fundamental measure of physiologic functional capacity for exercise.1 Ray U.S. et al (2001)3 observed significant improvement in VO2 max after Yogic training. Raju P.S. et al (1997)4 have found a significant increase in oxygen consumption per unit work after yoga training significant improvement in cardiovascular endurance as a result of yoga training. Significant increase in aerobic power (VO2 max) of muscles after yoga training. In our study, as shown in table 1 and 2, VO2max in males and females show statistically significant improvement with regular practice of yoga.

These effects can be explained on the following basis

a) Increase in Oxygen Consumption by the muscles 7, which in turn suggest increase in muscle blood flow. This may be due to a generalized decrease in vascular tone resulting from stimulation of parasympathetic activity during Yogic Training.
b) Conversion of some of the Fast Twitch muscle fibres into Slow Twitch muscle fibres during yogic training. Slow twitch fibres have high aerobic power.
c) Yoga postures (asanas) involve isometric contraction which is known to increase skeletal muscle strength.
d) Greater involvement of active muscle mass from different parts of the body10
e) Increase in muscular endurance and delay in onset of fatigue
f) Improvement in lung functions and better utilization of oxygen at cellular level. Improvement in both lung functions as well as cellular machinery explain raised VO2 max after regular practice of yoga. The yoga training regime used in the present study was of sufficient intensity and duration to produce significant changes inVO2 max. The number of subjects used was 60 and all the volunteers were of similar age (14-16 years). These points enhance the reliability of observations. Thus our study suggests that regular yoga practice improves aerobic capacity in both males and females. Research on particular set of Yogic exercises like only selected asanas or pranayama is required and also further research with large sample size and for varied age groups is required for applying these results to population in general.

Conclusion

1. Yogic Exercises done for one hour daily including asanas, breathing exercises and pranayamas seems to improve VO2 max.
2. In spite of Yogic Exercises being not very vigorous, VO2 max was found to increase.
3. Yogic Exercises can be of value in conditions of low cardio respiratory reserves, especially in patients in whom heavy exercises are contraindicated.
4. Yogic Exercises may be incorporated as a part of 'Physical Fitness Program' to improve cardiorespiratory efficiency in sport persons

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THE EFFECT OF MINDFULNESS AND MEDITATION IN SPORTS PERFORMANCE

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Abstract : Sports performance has been a hot topic in the past few decades and many studies have been done on factors that effect sports performance. Everything from diet to training methods has been studied. Perhaps one of the most important aspects of sports performance is the athlete's ability to train the mind to put them in the best situation to compete. This can come in many different forms. Mindfulness and meditation are the main focus. Many different theories have been studied. It is important to train the mind just as you would train the body. Using mindfulness techniques have been shown to increase athletic ability and focus. This review of literature will examine at how mindfulness techniques have been used to increase performance and the athlete's ability to cope with inner and external stimuli to increase the competitive edge.
Keywords: Sports performance, mindfulness, meditation, psychology

Introduction

Mindfulness meditation has been around for thousands of years and originated in Asia. The idea of using meditation and other mindfulness techniques to cope with your environment and improve focus, has been practiced since the ancient days. Many spiritual people have used this practice to increase awareness of their self and the world around them. Breath control was also used as a way to connect with the earth's electromagnetic field, spiritual encounters, and even healing (Edwards, et al., 2013). However, during the Century of Lights (1800's), there began a division between religion and science. This lead to scientists researching the physiological changes that happen during meditation and less on the theory of faith. Within the last few hundreds years there has been a more secular shift in mindfulness and through science, these religious practices have become more modern and science based. (Neves-Pereira, Carvalho and Aspesi, 2017) There have been studies in various sports about the effect of using these mindfulness practices to enhance specific skills and overall perception of oneself in the sport (Baltzell et al., (2014); (Sappington & Longshore, 2014); (Burns, 2016); (Ford et al., 2016); (Hasker, 2010). These factors may all lead to increased performance through different physiological and mental benefits.

Through various forms of mindfulness and mind training there have been significant impacts on the way athletes are able to perform. Each sport is very specific, meaning one mindfulness practice may not work across all mediums. Mindfulness involves the participant to center themselves and the thoughts in their head. It allows the individual to focus on the present moment and not worry about outside factors that may be in their head. (Scott-Hamilton, Schutte and Brown, 2016)

Mindfulness has become relevant in sport because the practices teaches present moment regulation that is crucial to athletic performance. Previous mind training has had a focus on suppressing and stopping negative thoughts. These tactics have been shown to not be as effective as mindfulness interventions. These methods were goal setting, imagery, mental rehearsal, arousal control, self-talk, and pre-competitive routines (Hasker, 2010). This is because

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instead of forcing the individual to stop thinking negatively, mindfulness training allows the individual to be non-judgmental. This has a positive influence because the focus is no longer on the negative. (Gardner & Moore, 2004) This could be a huge step in athletics because mental attitude is an enormous factor in sports performance and coach-ability. Focusing on the positives and all the things within the control of the team and athletes may improve the way they and the team function as a whole during practice and performances. A athlete can then learn how to cope and accept the difficult things that come up during sports (Gardner & Moore, 2004). This may help clear their head and allow them to better focus attention on their body and the things that matter, rather than the negative things happening during their intense training load and competition.

This is also true in the military. There are many similarities of athletes and active military. During service and training, the military is put through taxing situations that test both the body and the mind. The military also have many cases of negative emotional and mental disorders that need to be dealt with or it can mentally cripple soldiers and decrease productivity (Stanley, Schaldach,Kiyonaga, Kiyonaga& Jha, 2011) Being able to think mindfully and have better control over their thoughts and body may benefit the active military as well. The active military may be compared to athletes and many similarities can be studied.

Highly skilled sports including soccer and other team sports and endurance sports such as cycling and running may see a large benefit because most of the time the athlete is in their head focusing on the task at hand (Baltzell, Caraballo, Chipman and Hayden, 2014) . With increased mindfulness tendencies the mind will not focus on the pain or negative feelings involved in the competition and may exhibit increased sports performance. A regularmindfulness practice may also increase the likelihood of an athlete to reach a flow state in which they are in "the zone" and have increased performance,

Reviewing the current literature about various uses of mindfulness techniques and how specific adaptations happen in sport, suggests there is a connection between mindfulnesstraining and sports performance. There are no large scale or long term studies currently available, but the current studies address many modalities and many seem to point to an effect on athletic performance and athlete attitude.

Statement of the Problem

A review of the literature demonstrates that mindfulness techniques that have beenadapted to sport training can lead to increased performance during stressful situations. Identifying and synthesizing the literature on this topic can assist those who work with these individuals to incorporate these techniques into their training protocols to foster optimal performance.

Purpose

The purpose of this synthesis project is to review the literature on mindfulness practices in athletics and its effect on sports performance.

Research Questions

1. What are the benefits of mindfulness training as it relates to stress and performance.
2. What sports would benefit from mindfulness training?
3. Does Mindfulness training affect the athletes outlook and attitude?

Operational Definitions

Mindfulness- A mental mode characterized by attention to present-moment experience without conceptual elaboration or emotional reactivity (Rooks et al. 2017)

Meditation-is the practice of turning your attention to a single point of reference. It can involve focusing on the breath, on bodily sensations, or on a word or phrase known as amantra.

In other words, meditation means turning your attention away from distracting thoughts and focusing on the present moment.(Meditation. (n.d.). Retrieved April 06, 2018, from https://www.psychologytoday.com/basics/meditation.

Flow State- consists of a feeling of enhanced physical and psychological functioning, a sense of freedom stemming from absence of negative thought and self-consciousevaluation (Scott-Hamilton et al. 2016)

Mental Toughness- the capacity to sustain one's attention on the task-at-hand, in the service of protecting against distraction and its performance and emotional costs. (Rookset al. 2017)

Delimitations

1. Population is high level athletes
2. Population is 20 male and 20 female.
3. Participants are involved in the following sports: cycling, volleyball, kabbaddi, football,Swimming in the colleges
4. There are different techniques of mindfulness studied

The Methods

The purpose of this chapter is to describe the methods used during the collection of data involved in mindfulness training and its effect on sports performance and behavior. The studies collected for this synthesis were located using multiple database searches through the Colleges at Bangalore, Karnataka. The databases used were through EBSCO host.

During the search for mindfulness there were 12,000 articles initially found. Continuing the search, the keywords used were: Mindfulness, Meditation, History, Sports Performance, and Athletics. These key words were combined to narrow the articles down to 1,300. Refining my search to full text only, scholarly-peer reviewed, and journal article. This left 85 articles that met the criteria. After reviewing through the 85 articles , 10 that were based around an athletic population or were supporting results that involved human performance through mindfulness. Criteria for selection included peer reviewed, full text access, and focus on mindfulness and athletic performance. To insure that the information retrieved was current and relevant, all the articles were published between 2004 and 2016.

Three articles were found by going to a researchers website and downloading the articles directly from the reference section of the website. The website was (http://www.amishi.com/lab/) who is an Associate Professor of Psychology at the University of Miami. Her articles were accessed through her lab website. Additional sources were selected as part of the literature review provided context about the topic, background information and supplemental information to complete the review. All sources are cited in the reference section of this paper.

The sources are from the following journals, Cognitive and Behavioral Practice, Journal of Clinical Sport Psychology, Applied Psychology: Health and Well Being, African Journal for Physical, Health Education, Recreation, and Dance, Biofeedback, The International Journal of Health, and Wellness, and Society. Other research was ascertained from book chapters and theses to provide additional information on the topic

Included in this critical mass there were 268 participants. This included 20 female athletes, 149 males athletes, 65 athletes not assigned a gender, and 34 male military men. All athletes were from a large variety of sports and different levels of competition. A large majority of the critical mass were collegiate athletes in Division III through Division I programs. From this mass there were 7 Division I soccer male athletes, a 22 year old Division I golfer, 100 Division I football athletes, 2 males and 4 female national level swimmers for the United Kingdom, 5

female and 42 male cyclists from Australia, 34 male military men with a mean age 30, and 65 athletes of various sports. There are other case studies looked at from various individuals as well.

Review of Literature

The purpose of this chapter is to review the literature on the effects of mindfulness and meditation on sports performance. During this study 12 peer-reviewed articles were reviewed to form this synthesis. The information was broken down into sections that allow the information to be compared and contrasted. The sections are as follows: Sports Performance, Mental Attitude, and Flow State. Breaking the topic down into these sections allows one to look at the different adaptations that occur from a mindfulness and meditation practice and how they affect different populations of athletes. The articles that were used were with various types of athletes and skill levels. There were also different mindfulness practices used, however they have many similarities and all have the common goal of creating a better mindset for the athlete and to attempt to increase sports performance.

Mental Attitude:

Baltzell et al., (2014) used a six week, 12 session mindfulness meditation program (MMTS). Seven athletes from a division I women's soccer team were interviewed following the completion of the MMTS program. All of the athletes interviewed (n=7) stated that following the program there was a shift in their relationship with emotions, both on and off the field. One athlete stated, "I think I am able to focus the excitement or anxiety towards my play instead of getting too pumped up and then trying to do too much at the beginning of the game… (like) devoting myself to win a ball that I probably can't get to because I am over excited." (p. 229) Another athlete said, "towards the end of the game… (when I was) becoming fatigued and everything, instead of saying that I'm tired and having my body sort of break down, I mentally push through it and work up the field for an attack, or get back and defend" (Baltzellet al., 2014, p. 229). All of the athletes saw the benefit of the MMTS practice and attributed it towards their positive shift mental shift on the field. Six out of the seven athletes experienced a shift in their attitude during practice as well. Many of the participants began seeing the benefits and taking advantage of the opportunity and saw the mental side of the game improve. Ford, Wyckoff, and Sherlin, (2016) found that Mindfulness has been reported to decrease perfectionism, thought disruption, and performance anxiety while decreasing the likelihood of being overwhelmed with emotions" (p. 154).

Burns, (2016) studied ten basketball players, where five players would meditate regularly and five did not. An observer that played basketball and meditated conducted loose conversation with the other participants over the phone or skype. The questions were geared towards finding reasons to meditate and reason to not meditate. Among the reasons to meditate, a large reason was gaining self knowledge. The players that mediated proclaimed that sitting down and freeing your mind helped them discover who they really are and see things in a different light. The players also stated that they were able to feel less stress, worry, social insecurity, feelings of fear and anger (Burns, 2016). The reality of an athlete is that there is enormous pressure on the individual and team. To be able to reduce these negative factors and have a shift in mental attitude towards the game and others around them, makes meditation a valuable tool.

Similar findings were established by Scott-Hamilton et al., (2016). The study consisted of Australian cyclists that did not have any prior mindfulness training, were club level athletes, and older then sixteen years. Baseline pre-interventions measures were given before the eight week intervention commenced. Forty seven cyclists participated in the study with five (n=5) being female and forty two (n=42) male riders. Twenty riders were in the control group and the remaining were put through the eight week mindfulness practice. The experimental group were

put through mindfulness workshops, mindfulness-integrated cognitive behavior therapy program material, and mindful spin-bike sessions. At the end of the intervention, all participants were given a post-test survey. During this study, the experimental cyclists were not any less anxious than the control group, but did show improvements in mental attitude. The mindfulness group showed lower frequency of pessimistic attributes. These findings did not reach significance, however they do show similarities to (Burns, 2016).

Stanley et al., (2011) studied a group of thirty four United States Marine reservists that were put through a program tailored to the stresses of the military. This intervention was called, mindfulness-based Mind Fitness Training (MMFT). MMFT was developed to prepare these men for deployment in Iraq. Many of the the MMFT exercises were programed based on rank and were mostly in a group setting. The thought behind doing group exercises, was to create unit cohesion and social support. The groups were broken into two, seventeen man units that were consistent throughout the 8 week program. A separate detachment of 21 male participants from the same parent unit were examined as the Marine Comparison group (MC). This group did not receive the same MMFT training as part of their pre-deployment training. The participants were then tested on separate laptops, where they completed self-reported questions based on stress, mindfulness, outlook, etc. Stanley et al., found that the higher groups with the mindfulness intervention had increased mindfulness scores from pre to post evaluation. The other groups with less mindfulness training saw a decrease in mindfulness test scores, most likely due to the stressed put upon them during this time. The findings of this study showed great promise in military personnel and could be very similar to athletes. There are a lot of similarities between athletes and the military. The stresses and physical demand of training can be compared and their overall performance when it comes to game day or preparedness of deployment may also be compared.

Sports Performance:

Mindfulness training has been tested with athletes in the past and has shown promising effects. Mardon, Richards, and Martindale, (2016) found that in college swimmers, the coaches and team (6 participants) found it to be very useful. On a 10 point scale, 0 being not at all beneficial and 10 being extremely beneficial, two found it to be an eight and two rated the training to be a seven. The last two participants said the training rated a six. The coach also included that the mindfulness training program exceeded his expectations. The intervention was from a CD so the mindfulness training was standardized and consistent. The participants went through 8 weeks of 4 exercises that lasted between 10-30 minutes. These techniques included focus on breath, body and breath, standing yoga, and body scanning.

The results also found that four participants improved their attention efficiency over the eight week intervention. The study also looked at performance times in the athletes during the intervention period. Four of the participants saw improved performance times in their primary racing events. The average improvement was 1.5%. Participants two and four both had improvements in performance time, but did not report any improvement in self reportedmindfulness (Mardon et al, 2016). This could be due to the participants thinking theimprovements came through other variables or that the mindfulness training had little effect on the way they went about attempting to make the improvements. Overall this study showed that mindfulness did have a positive effect on most of the participants. For many of the participants attention improved as well as times. Improvement in attention makes sense because mindfulness helps participants focus on the present and what is happening to them at that very moment. The improvement in performance time would need to be further studied to see if the increased attention during practice and competition had a positive impact or if it was just increased conditioning.

Hasker (2010) discussed how using the Mindfulness-Acceptance-Commitment (MAC) approach positively impact athletic performance. The theory is that there is no need to control or change these negative internal states, Through acceptance based strategies and mindfulness, athletes can increase task-focused attention and that increase will improve the overall performance. The approach lets the athlete realize that their thoughts are not reality. They are just passing thoughts and do not affect the way things really are. The MAC approach is similar to other mindfulness techniques because there is a focus on present- moment awareness and taskfocused attention. Within the study, the MAC group did not see increases in athletic performance through self-rating. The Mindfulness Training group did however, see an increase in self rated athletic performance. Both groups demonstrated an increase in ability to engage in experimental acceptance and had greater ability to be non-reactive to inner experience. The MAC group did not experience significant improvement in flow, but the MT group did see increase in flow. These finding were in contrast to previous studies however. The MT group saw improvements in challenge-skill balance, action-awareness, clear goals, unambiguous feedback, concentration, sense of control, loss of self-consciousness, and autoletic experience (Hasker, 2010). Traditional mindfulness training seems to be a more stable intervention for creating a improvements in variables that will improve overall performance. This is also supported by Ford, Wyckoff, and Sherlin, (2016), in which they state, "Mindfulness-based practices with athletes have suggested that these interventions can have benefits for sports performance." (p. 255)

Flow State:

A large part of mindfulness and sport performance is due to being in a flow state. The flow state has been something many athletes have sought after since the beginning of sport. The state involves the athlete to be in complete sync with their body and the present things appendingaround them. "In flow , everything is optimal. Mind and body are in harmony, negative thinking and self-doubts are absent, and functioning is enhanced" (Hanin, 2000, p.141). The flow state can feel like autopilot to the athlete. Where they are competing and don't really have vivid memories or are not putting in a large perceived effort. The opposite may also be true however, the athlete is not in autopilot, the athlete is hyper aware and so in touch with themselves that they have this out of body experience. This flow state comes from an unforced sense of focus. Mindfulness helps build this focus and may be able to help the athlete reach this state faster and with more ease due to the nature of mindfulness and being in the now.

Scott-Hamilton, Schutte, and Brown, (2016) stated that, "results suggest that mindfulness based interventions tailored to specific athletic pursuits can be effective in facilitating flow experiences. Much of the research promotes the theory that mindfulness can catalyse the flow state" (p. 85). Mindfulness training has many benefits including increased flow state, decreased sport anxiety, and pessimism among cyclists (Scott-Hamilton et al, 2016). This is important because endurance sports have a larger chance of seeing flow states. This is because endurance athletes are exposed to longer bouts of physical and mental sensations of discomfort. Rooks et al., (2017) supported this showing that during intensive pre season football practices, mindfulness helped decrease the likelihood in loss of attention over long periods of time.

Scott-Hamilton et al., used a sport specific mindfulness approach to the training they gave the cyclist athletes. Part of the mindfulness training was done on the bike to mimic sport specific sensations that they may find. The participants practiced mindfulness during a spin on their bike. This allowed the athletes to practice mindfulness as they experienced discomfort physically and the emotions that come with feeling discomfort. The participants with the mindfulness training did not test less anxious at post-test, but they were less pessimistic at posttest than any of the other wait list participants. This shows that depending on the sport and

type of mindfulness practice, there may be a different effect. Practicing mindfulness on a daily bases may prove to have benefits to the athletes' attention, performance, and attitude. However, it may be beneficial to further look into how mindfulness could be incorporated into training protocol to be more sports specific.

Summary:

Mindfulness benefits can be seen in sports performance in varying ways. The previous studies show the how practicing mindfulness and meditation affect mental attitude, sports performance, and increase in flow state. Although different techniques were used many athletes saw benefits. These benefits include increased time of attention, better mind body connection, ability to overcome pessimistic thoughts, improvement in race times, and ability to better control emotions.

Discussion and Recommendation for Future Research

This synthesis examined research articles to determine the effect of mindfulness training and its impact on sports performance. The intent of this synthesis study was to answer the following questions:

- What are the benefits of mindfulness training as it relates to stress and performance.
- What sports would benefit from mindfulness training?
- Does Mindfulness training affect the athletes outlook and attitude?

When examining the benefits of mindfulness training as it relates to stress and performance it was demonstrated that mindfulness practices have decreased stress, opened the mind, and created a more spiritual presence in the past. Modern society and science has taken these practices and created a more secular and scientific approach to mindfulness. Looking at a performance perspective, athletics could benefit from increased mindfulness training. The literature shows a trend that athletes have a great demand not only on their bodies, but their minds as well. A lot of focus in training athletes is based on their body. For example conditioning, nutrition, body composition, etc. Creating a solid mental platform can help athletes reach for higher potential and take away some of the mental pressure involved in their performance. Having a mindfulness practice in place will help athletes create a betterunderstanding of themselves and the training. The literature demonstrated that athletes felt they were better equipped to focus on the task at hand and make better judgment calls because their mind was focused and trained to deal with the stressors given to them. Athletes would also benefit because mindfulness as been shown to improve athletes ability to deal with failure and to stay focused on the task at hand. Lastly, it is hard to determine exactly if mindfulness causes an increase in performance, but swimmers saw an increase in their performance times. Is this simply due to the training effect or due to the mindfulness practice? It is hard to isolate the reason, but the swimmers did agree that they saw benefits of attitude and their feeling in the water. In terms of sports that would benefit from mindfulness training, this question is difficult to answer. Based on the most current literature it is hard to say which sports would directly benefit from this training. It is clear that athletes gain many benefits as stated above, but which sports would benefit the most is unclear. Highly skilled sports and sports with high levels of endurance would benefit by the fact that they are able to focus on the task at hand and forget about negative feeling. More research would be needed to find a more substantial answer.

Finally, regarding the impact of mindfulness training on athletes outlook and attitude researchers found that soccer players expressed how they felt better prepared for their competition. One athlete felt that she was able to better deal with anxiety and other emotionalreactions that come during competition. Athletes are also able to better prepare themselves for negative thought and outcomes. They had better reactions to these negative

stimuli and could keep their focus on performing at the highest level. There is a common theme that many athletes see a shift in their mental attitude which could lead to better performance, learning, and possibly prevent burnout.

Recommendations for Future Research

The following present recommendations for future research in the area of mindfulness training and its impact on athletic performance.

1. It is recommended that more extensive studies be done because it is still only anemerging field of study within the last few years.
2. Future research should also determine how mindfulness can be presented specifically for individual sports.
3. More large scale studies will help see larger trends and eliminate any speculation.

Conclusion

This synthesis shared the information found on mindfulness training and how it can be used in an athletic setting. The research focused on the how mindfulness affects athletes of different sports and abilities. The effects can be a little different across mediums. However,there are many benefits to adding mindfulness practice into athlete's training regimen. Developing athlete specific mindfulness will not only open up a new pillar in mental training, but could also bring forth new theories on sports psychology. Using this knowledge can help increase self awareness, mental attitude, increase likelihood of reaching flow state, and increase sport specific performance. Although there is some research found, it is recommended that more extensive studies be done because it is still only an emerging field of study within the last 20 years.

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A STUDY ON REHABILITATION IN SPORTS AND OTHER PHYSICAL ACTIVITIES

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Abstract : In India, sports physicians are increasingly joining specialist rehabilitation teams, and they can help with medication, nutritional supplements, and specialized tests that could improve injury understanding. Inputs from surgeons are mandatory if surgical interventions have been performed. What is often missing in the underdeveloped world is psychological support and a clear understanding by the athlete of his/her rehabilitation protocols. World over, the primary aims are safe return to sports and minimizing reinjury on return to sport; this involves rehabilitation in stages, and current methodology clearly demarcates acute and chronic phases of injury. Close coordination with trainers and coaches is mandatory, and all need to understand that the reconditioning phase is crucial; skill assessment before progression has now become a specialized domain and needs to be introduced at all levels of the sport. A key factor in all sports injury rehabilitation protocols is injury prevention; this involves data maintenance by teams or trainers, which is still not fully developed in the Indian context. The injury and subsequent problems need to be comprehended both by athletes and their coaches. The current review is an attempt to clarify some of the issues that are important and routinely used world over, with the aim to improving rehabilitation after sports even in the underdeveloped world.

Keywords: Athletes, Sports injury, Physical activity, Coaches, Sports persons,

Introduction

The popularity of physical activity in all of its forms continues to steadily increase. More than just the domain of elite or professional athletes, the populace enjoys a variety of recreational pursuits from hiking and running to skiing and surfing, from badminton and tennis to cricket and hockey. In such endeavours many participants find that injury is inevitable. Unfortunate circumstances are not confined to those engaging in rugby or "X games", daredevil sports like Parkour, kitesurfing or acrobatic bicycle jumping, although clearly these carry a high cost in physical trauma (Young 2002; Spanjersberg and Schipper 2007; Miller and Demoiny 2008). Young footballers and senior golfers alike are prone to injury, as are Olympic performers and "weekend warriors" because injury does not discriminate (Delaney et al. 2009; Falvey et al. 2009). Likewise, non-traditional athletes such as dancers (Fitt 1996; Stretanski 2002; Koutedakis and Jamurtas 2004) will not escape injury (Bowling 1989; Garrick and Lewis 2001; Bronner, Ojofeitimi and Spriggs 2003; Laws 2005). Whether they are pursuing gold medals or leisure, those who participate in physical activity require both proper preventive training and proper healthcare; they will benefit greatly from experts who can deliver these. Sport rehabilitators and other allied health professionals have much to offer physically active people. This chapter aims to:

- Define the role of the sport rehabilitator as a member of the sport injury care team;
- Promote individual and organisational professionalism within the field of sport rehabilitation;
- Provide a framework for ethical conduct of sport rehabilitators and related professionals;

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- Describe legal parameters that must be considered by those in sport rehabilitation and related fields.

At some point in the recovery process, athletes return to strength and conditioning programs and resume sport-specific activities in preparation for return to play. The transition is important for several reasons. First, although the athlete may have recovered in medical terms (ie, improvements in flexibility, range of motion, functional strength, pain, neuromuscular control, inflammation), preparation for competition requires the restoration of strength, power, speed, agility, and endurance at levels exhibited in sport.

Return to play is defined as the process of deciding when an injured or ill athlete may safely return to practice or competition. Early return to training and sport are considered sensible goals if the rate of return is based on the affected muscle, the severity of the injury and the position of the athlete.

Criteria for return to play must emphasise gradual return to sport-specific functional progressions. Sport-specific function occurs when the activations, motions and resultant forces are specific and efficient for the needs of that sport. Sport-specific functional rehabilitation should focus on restoration of the injured athlete's ability to have sport-specific physiology and biomechanics to interact optimally with the sport-specific demands. That means that they need to be replicated at the same speed, on the same surface and with the same level of fatigue to be truly effective.

Once a athlete has been medically cleared to return-to-play there are some fundamental steps that need to be followed:

- The athlete has to fulfil the fitness standards of the team he is returning to.
- The athlete needs to pass some skill specific tests applicable to his playing position.
- The player may then begin practising with the team.
- Exposure to the match situation should be gradual, with the match time gradually increasing.

There are simple guidelines which need to be developed by each team with contributions and support from each member of the medical team.

Rehabilitation Plan

The rehabilitation plan must take into account the fact that the objective of the patient (the athlete) is to return to the same activity and environment in which the injury occurred. Functional capacity after rehabilitation should be the same, if not better, than before injury.

The ultimate goal of the rehabilitation process is to limit the extent of the injury, reduce or reverse the impairment and functional loss, and prevent, correct or eliminate altogether the disability.

Multidisciplinary Approach

The rehabilitation of the injured athlete is managed by a multidisciplinary team with a physician functioning as the leader and coordinator of care. The team includes, but is not limited to, sports physicians, physiatrists (rehabilitation medicine practitioners), orthopaedists, physiotherapists, rehabilitation workers, physical educators, coaches, athletic trainers, psychologists, and nutritionists. The rehabilitation team works closely with the athlete and the coach to establish the rehabilitation goals, to discuss the progress resulting from the various

interventions, and to establish the time frame for the return of the athletes to training and competition.

Communication is a vital factor. A lack of communication between medical providers, strength and conditioning specialists and team coaches can slow or prevent athletes from returning to peak capability and increase the risk of new injuries and even more devastating re-injuries.

Principles

Principles are the foundation upon which rehabilitation is based. Here are seven principles of rehabilitation, which can be remembered by the mnemonic: ATC IS IT.

7 Principles of Sports Rehabilitation

- Avoid aggravation. It is important not to aggravate the injury during the rehabilitation process. ...
- Timing. ...
- Compliance. ...
- Individualization. ...
- Specific sequencing. ...
- Intensity. ...
- Total patient.

A: Avoid aggravation : It is important not to aggravate the injury during the rehabilitation process. Therapeutic exercise, if administered incorrectly or without good judgment, has the potential to exacerbate the injury.

T: Timing : The therapeutic exercise portion of the rehabilitation program should begin as soon as possible—that is, as soon as it can occur without causing aggravation. The sooner patients can begin the exercise portion of the rehabilitation program, the sooner they can return to full activity. Following injury, rest is necessary, but too much rest can actually be detrimental to recovery. Athletes can however rest the portion of the body that is actually injured and work the rest of the body - often referred to as "relative rest".

C: Compliance: Without a compliant patient, the rehabilitation program will not be successful. To ensure compliance, it is important to inform the patient of the content of the program and the expected course of rehabilitation. Setting goals and including athletes in decision making works as a motivation factor to continue the rehabilitation process. Thus goals working as a motivating factor, increases the effort to reach the goal, and thereby increases focus, endurance, and direction for the athletes to continue, which is an important part of rehabilitation after an injury.

I: Individualization : Each person responds differently to an injury and to the subsequent rehabilitation program. Even though an injury may seem the same in type and severity as another, undetectable differences can change an individual's response to it. Individual physiological and chemical differences profoundly affect a patient's specific responses to an injury.

S: Specific sequencing :A therapeutic exercise program should follow a specific sequence of events. This specific sequence is determined by the body's physiological healing response.

I: Intensity : The intensity level of the therapeutic exercise program must challenge the patient and the injured area but at the same time must not cause aggravation. Knowing when to increase intensity without overtaxing the injury requires observation of the patient's response and consideration of the healing process.

T: Total patient : Treating the Whole Patient. It is important for the unaffected areas of the body to stay finely tuned. This means keeping the cardiovascular system at a pre-injury level and maintaining range of motion, strength, coordination, and muscle endurance of the uninjured limbs and joints. The whole body must be the focus of the rehabilitation program, not just the injured area. Providing the patient with a program to keep the uninvolved areas in peak condition, rather than just rehabilitating the injured area, will help to better prepare the patient physically and psychologically for when the injured area is completely rehabilitated.

Monitoring

Regarding these aspects from the text above, there are several problems to look out for: are all the mechanic parameters of the performance (force, velocity, power) regained at that time?, are there any ways to conduct the rehabilitation program in order to obtain better parameters and so the return to the sports activity to be safely done? and, which could be the most suitable evaluation methods in order to be sure about the athletes well-training?.

Monitoring athlete well-being is essential to guide training and to detect any progression towards negative health outcomes and associated poor performance. Objective (performance, physiological, biochemical) and subjective measures (mood disturbance, perceived stress and recovery and symptoms of stress) are all options for athlete monitoring. Appropriate load monitoring can aid in determining whether an athlete is adapting to a training program and in minimising the risk of developing non-functional overreaching, illness, and/or injury.

In order to gain an understanding of the training load and its effect on the athlete, a number of potential markers are available for use. There are a number of external load quantifying and monitoring tools, such as power output measuring devices, time-motion analysis, as well as internal load unit measures, including perception of effort, heart rate, blood lactate, and training impulse. Other monitoring tools used by high-performance programs include heart rate recovery, neuromuscular function, biochemical/hormonal/immunological assessments, questionnaires and diaries, psychomotor speed, and sleep quality and quantity. Coaching staffs and administrative personnel must work to ensure that care can be provided at all points of the rehabilitation process, especially when funding dictates the need to hire personnel capable of addressing injuries at multiple levels. A clear understanding of the injury and of the interventions from each provider is vital to an efficient and successful return to play.

Appropriate monitoring of training load can provide important information to athletes and coaches; however, monitoring systems should be intuitive, provide efficient data analysis and interpretation, and enable efficient reporting of simple, yet scientifically valid, feedback. If accurate and easy-to-interpret feedback is provided to the athlete and coach, load monitoring can result in enhanced knowledge of training responses, aid in the design of training programs, provide a further avenue for communication between support staff and athletes and coaches and ultimately enhance an athlete's performance.

Conclusion

Although injury prevention and rehabilitation are not new disciplines, there is still an unmet need to improve knowledge toward theoretical understanding on epidemiology, risk factors, and injury mechanisms, as well as on practical strategies that can reduce the risk of sports injury or reinjury and of sequalae after injuries. Given the complex nature of injury, a holistic multifactorial biopsychosocial approach is needed through comprehensive, multidisciplinary and individualized approach to reach this great challenge. We therefore hope

that this new section Injury Prevention and Rehabilitation of the Frontiers in Sports and Active Living can contribute to this improvement of knowledge, but also positively impact the sustainable and safe participation and short and long-term health of athletes.

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YOGA AND SPORTS: ANALYZING THE PRACTICE OF YOGA AND ITS IMPACT ON SPORTS

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Abstract : Thepractise of Yoga became very popular in the contemporary period across the world. The term Yoga is derived from the Sanskrit word "*Yuj, which means to join or to unite*". The practise of Yoga has its historical roots in Indian history, culture, religion and civilization. In the present times, even the Indian government uses Yoga (yoga-diplomacy) as a tool to develop its foreign relations with other countries. However, Yoga helps individuals develop consciousness of mind, personality, health, harmony, freedom (Kaivalya), liberation (Moksha) and peace of mind. In this background, this paper will examine how practising Yoga will strengthen individual performance in sports. This paper will also focus on different kinds of Yoga for increasing fitness and performance in sports.

Keywords: Yoga, Sports, Health, Fitness, Harmony and Peace of Mind.

History of Yoga

The word yoga was derived from the Sanskrit word Yuj which means 'to join' or 'to unite'. The beginning of yoga was developed by the Indus - Sarasvati civilization in Northern India over 5,000 years ago. It aims to connect your mind and body and to help them work together in peace. Lord Shiva is considered to be the first yogi, it is believed that he disseminated his knowledge and learning to seven learned men known as the saptarishis. They, in turn spread their knowledge in seven different directions covering diverse regions - knowledge that humans can evolve beyond their physical limitations.[1]

Types of Yoga

Hatha Yoga

The term "hatha" means "force" or "willfulness" that is required to perform an activity. Shows that Hatha yoga helps us destress, stay physically fit and agile, and make us look younger. In addition, Hatha yoga purifies and heals our system. Also, sustained practice leads to weight loss and toned muscles. Practicing hatha yoga stretches all the parts of your body and helps in curing neck pain, arm pain and back pain. It helps in improving the sleeping patterns of a person that provides them peaceful and qualitative sleep.

Aerial Yoga

It is suitable not only for advanced people but also for beginners. It helps to build toned and lean muscles. It has the goodness of yoga and cardio exercises like swimming or running.[2]

Benefits

- Burns body fat
- It improves flexibility
- Cures breathing difficulties
- Provides relief from stress
- Increases core strength
- Improves posture

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Restorative

The focus of restorative yoga is just that this yoga practice is performed at a very low level of intensity. Much of the session was spent on the floor in a seated or lying position. Time is spent on breathing and focusing on slowing down and feeling calm.

Benefits: Restoration, stress relief, body awareness

Intensity: Very low

When to Use: Off days, recovery days in times of high anxiety or stress, before bedtime

Recommendation for Athletes: Yes, for recovery or stress relief.

Vinyasa yoga

Vinyasa yoga provides a wealth of benefits, including mental, physical and spiritual. Poses in Vinyasa yoga will be held at least once for 30 to 120 seconds. And when you're holding your body in a very specific position for a few seconds, your muscles have to work hard to maintain the shape. The faster pace of Vinyasa yoga makes it much more challenging and is ideal for a lower-intensity cardiovascular workout.[3]

Yoga-Health-Sports

An ancient practice that originated 5,000 years ago in India, it has been developed as a way to interconnect the mind, body and soul to step closer into enlightment. With the world ruling under a pandemic, this year's theme - yoga for well being couldn't have been more relevant.

"Yoga day has helped improve awareness levels and given credibility to a powerful ancient practice. It has brought the focus back on the various health physical benefits of this practice which makes it indispensable given our high stress modern day life style.

Swami Vivekananda's RAJA YOGA book written in Manhattam in 1896 had a major impact on western understanding of what yoga was over decades, more teachers and disciples of Indian gurus would travel to Europe and America. Between 1890's and now, 2 billion people have come to practice it worldwide. It's not by chance that Swami Vivekananda wrote the book that jumpstarted yoga as a global phenomenon.[4]

- Empowering instructors in Kenya's poorest neighborhoods. The Africa yoga began with the simple idea that yoga can empower young people to create a brighter future for instructors, providing jobs - organization has been training young Kenyans. Now knowing physical and spiritual benefits of yoga to more than 5,000 Kenyans and this numbers will only continue to grow.
- Improving wellness among New York's LGBTQ community and HIV and AIDS. The community, which is more likely to face harassment, discrimination and suicide, especially vulnerable to stress - related physical and emotional illness, which can have profound health consequences for people with HIV/AIDS.
- Inspiring positive change in prison inmates.[5]
- Healing the trauma of sexual abuse. Focusing on sensation in the body during yoga can help survivors over come feelings of shame and alienation from their bodies, while meditation techniques provide also powerful tools to combat post-traumatic stress disorder.[6]

Yoga and the World

Millions of people around the world have rolled out their yoga mats to celebrate a tradition that was once the preserve of Hindu holy men but is now a worldwide phenomenon. Yoga is sweeping across the globe at a dazzling speed, as millions are turning to yoga not only to exercise, but also as an alternative to the experience of a spiritual gathering they cannot find in a church, synagogue, mosque or any website. Today yoga is practiced in various forms around the world and continues to grow in popularity. Recognizing its universal appeal, on 11 December

2014, the United Nations proclaimed 21 June as the International Day of Yoga by resolution 69/131.

The International Day of Yoga aims to raise awareness worldwide of the many benefits of practicing yoga. The World Health Organization mentions yoga as a means to improve health in its Global action plan on physical activity 2018–2030: more active people for a healthier world.

The proposal was first introduced by Prime Minister Narendra Modi in which he said: "Yoga is an invaluable gift from our ancient tradition. Yoga embodies unity of mind and body, thought and action ... a holistic approach [that] is valuable to our health and our well-being. Yoga is not just about exercise; it is a way to discover the sense of oneness with yourself, the world and nature."[7]

Swami Vivekenanda is seen as the man who brought yoga to the West. The monk from Calcutta travelled to the Parliament of Religions in Chicago in 1894 and spoke about India and Hinduism, before embarking on an influential lecture tour of the United States.

Conclusion

There should surely be a yoga style for everyone. Athletes should practice yoga on a daily basis and make sure to include yoga in their training plan. Here are some reasons why:

1. **Core Strength :**A consistent yoga practice can enhance core strength and stability. Various poses target muscle groups that are often under-utilized in other exercises, such as running, cycling, and swimming. By strengthening these neglected muscles, you provide more support to your major muscle groups. Improving the strength of both big and small muscles allows them to function at their optimal level and enhance your exercise performance.
2. **Balance :**Balance and coordination are essential for improving exercise performance and prevention of injuries. Flowing through yoga poses enhances balance and coordination, as well as concentration. By improving balance, you can reduce the risk of falls and improve technique when exercising, leading to better performance overall.
3. **Flexibility :**In addition to poses that challenge strength and balance, a complete yoga practice includes poses to increase flexibility. Joint and muscle flexibility play a key role in range of motion. A greater arc of motion allows more force to be exerted during exercise movements like a golf swing, swimming stroke, or a baseball pitch.
4. **Mental Focus :**Yoga acknowledges the importance of mental training alongside physical training. Even if meditation is not for you, yoga includes various other techniques that can help improve mental focus for sport or exercise. For example, many yoga poses are most successful when breathing matches movement. This can be beneficial for endurance athletes like runners, cyclists, or swimmers.

Yoga is a great addition to any exercise regimen and has many benefits for improving exercise performance. It is unique in that athletes of all ages or experience can start a regimen at their own pace – and reap the benefits. So, step out of your comfort zone and onto the mat today.[8]

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A STUDY ON YOGA AND DIET FOR HEALTH AND FITNESS

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Abstract : The yogic diet recommends eating whole, unprocessed foods, like fresh fruits and vegetables. These foods—which are nutritious and easy to digest—are known as Sattvic (pure) foods. The opposite of that are Tamasic (angry) Rajasic (forceful foods), like meat and alcohol, which are prohibited on the yogic diet. Also known as the sattvic diet, the yogic diet is based on the belief that our bodies are directly connected to our minds. Consider it the literal version of "you are what you eat"—so if you eat sattvic foods, both your mind and body will be pure.

Diet is an integral part of yoga. Much of the yogic prescription for food comes straight from the yamas and niyimas, yoga's "do's and don'ts" as articulated in Patanjali's Yoga Sutra. It is well established in Western science that a poor diet can contribute to the development of a wide variety of diseases, including Type II diabetes, high blood pressure, heart attacks, and some cancers. Modifying the diet can, in turn, improve health, reduce the need for medications, and in some cases reverse all signs of disease. In addition, yoga would suggest that a good diet can improve your mood, energy level, and overall well-being, and even help make the world a better place.

Keywords: Yamas and Niyamas ,Pathanjali, Kundalini, Yogic bajan, Vatha,Pittha, Kapha

Introduction:

'Isn't it enough just to practice the Yoga asanas/ poses, do I have to regulate my food?' wonder many. In itself, practicing Yoga asanas is one of the most beneficial regimes, but when complemented with the healthy food habits, it can really create wonders. In fact, eating the right food is an essential part of living a Yogic life.

What we eat, not only influences our physical well being, but also our emotions and thoughts. Yoga, does not dissect food into proteins, carbohydrates or fats, instead it classifies them according to the effect they have on the body and mind, into three types – satva, rajas and tamas. Tamasic food is the kind of food which makes us lethargic or sluggish, while Rajasic food is that which brings about activity or restlessness. Whereas, Sattvic food is the kind which makes you feel light, energetic and enthusiastic.

Sathvic food	Rajasic Food	Tamasic food
Sattvic foods are those which purify the body and calm the mind	They stimulate the body and mind into action. In excess, these foods can cause hyperactivity, restlessness, anger, irritability, and sleeplessness	Tamasic food are those which dull the mind and bring about inertia, confusion and disorientation
Cooked food that is consumed within 3-4 hours can be considered sattvic	Overly tasty foods are Rajasic	Stale or reheated food, oily or heavy food and food containing artificial preservatives fall under this category

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Examples - Fresh fruits, green leafy vegetables, nuts, grains, fresh milk, certain spices	Examples – Spicy food, onion, garlic, tea, coffee, fried food	Example – Non vegetarian diet, stale food, excessive intake of fats, oil, sugary food

Not just the right kind of food, it is vital to eat the proper quantity of food at the right time. Overindulging leads to lethargy while under eating will not provide enough nourishment. Most of the times we know that our stomach is full but tempted by the taste buds we tend to indulge. The right amount of food cannot be quantified into cups or grams, when we listen to our body attentively we will know when exactly to stop!

We might eat the right kind of food in the right quantity but if we are irregular with our timings then the whole system goes for a toss and the natural rhythm of the body is hampered. Therefore it is of prime importance to eat food at the same time everyday and eat it at regular intervals.

It is said that the state of the mind of the person cooking/ eating also affects the food. The energy in the food cooked by someone while he/she was angry will definitely be lower than that of someone who cooked it with a feeling of love, contentment and gratitude. Listening to some soothing music or chanting while cooking and eating can help retain the Prana (life force energy) in the food.

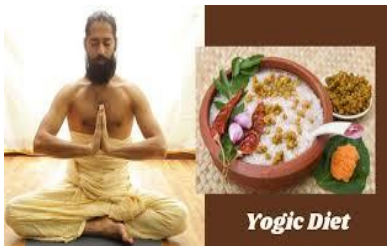
Yoga also prescribes a more personalized diet according to the nature of our constitution. Food that might be favorable for someone might be harmful for a person of another constitution. It is best to consult an Ayurvedic physician to decide what kind of food is necessary for you and which should be avoided. It is definitely worthwhile to pay some attention to the food that we eat

Everything that we eat is food for our soul. Yogis believe that food is the creator of prana (life force) that sustains our bodies and brings us vitality and health. Therefore, the types of foods we choose to eat reflect the level of our conscious development. The discipline of yoga suggests a pure (ethical) vegetarian diet, which facilitates the development of sattva. Sattva is a quality of love, awareness, connection, and peace with all sentient beings. Yogis believe that food is our first interaction with the world around us, and if we do not eat with a sense of love, connection, and peace, all other facets of our lives are inclined to suffer. The basis of sattva is the concept of ahimsa (non-harming). A sattvic diet avoids any foods that involve killing or harming of animals.

The Yogic Diet

Yogi Bhajan encouraged his students to embrace a healthy, yogic lifestyle. The yogic diet he promoted includes whole, simple, fresh, nutritious food.The yogic diet does not include meat, fish, poultry, or eggs. You can get all the proteins, vitamins, and minerals you need without them.A yogic diet is a balanced combination of:Fruits, Nuts, Vegetables, Grains, Legumes, Dairy products (except eggs)Whole, fresh, unprocessed nutritious foods give you energy and strength. When your diet consists of nutritious and sustaining foods and you eat only what you know you can digest, then you are on your way to a healthy, happy, and holy life.

1. A yogic diet should be Sattvic, Rajasic, and Tamasic Foods In yogic and Ayurvedic philosophy, there are three qualities (gunas) of all things in nature: 1) Raja (hot, spicy, fast), 2) Tama (slow, lethargic, bland), and 3) Sattva (purity, harmony). These three qualities are present in all things, but in different amounts, making one quality dominant.



Rajasic foods are hot, bitter, dry, salty, or spicy. They over stimulate the mind and excite the passions. In contrast, **Tamasic** foods are bland and include meat, alcohol, tobacco, garlic, onions, fermented foods, and overripe substances. **Sattvic food** is the purest diet, the most suitable one for any serious yoga student. It nourishes the body and maintains a peaceful state. This, in turn, calms and purifies the mind, enabling it to function at its maximum potential. A Sattvic diet will ultimately lead to true health; Peaceful minds in control of a fit body, with a balanced flow of energy between them. You are what you eat.

2. A yogic diet should be vegetarian: The lion is a great meat-eater, and he is called the king of the jungle. But no animal can match the elephant, a complete vegetarian, for pure strength - Yogi Bhojan. Fear of protein deficiency is the meat-eaters main objection to a vegetarian diet. Yet, ironically, meat eaters obtain the worst quality protein from their food—protein that is dead or dying. Animal protein contains too much uric acid and other toxins to be broken down by the liver; some are eliminated, but the rest are deposited in the joints and tissues, leading to problems such as arthritis and cancer. Uric acid is a toxin that also makes it harder to reach the higher, clear meditative state because it is an irritant in the bloodstream.

3. A yogic diet should be free of chemicals and stimulants: Choose organic when available, and avoid caffeine, tobacco, alcohol, and artificial sweeteners. These substances are not healthy for the body and alter the mind, making it more difficult to concentrate on the Divine.

4. A yogic diet should contain fresh foods: If possible, always prepare a fresh meal. Frozen, prepared, packaged and left-over foods should be avoided, only taking in the freshest and the best.

5. A yogic diet should be at regular intervals, two hours before asana practice or sleep: If you train your body to eat at regular times, say at 10 A.M. and 6 P.M., it will better utilize its energy throughout the day as it anticipates intake of calories at these times. The body has cycles, and functions best when these cycles are regular and steady. The same goes for our meal times. Avoiding food two hours before exercise or sleep helps the body function at its best capacity. Energy for digestion should not be taken away for the purpose of exercise. Ensuring proper time for digestion before sleep helps to keep the mind clear. Thus, the hormones produced during sleep can be utilized efficiently to repair tissue damage and fight infection, which is ideal, instead of for digestion.

6. Take time to fast: The yogis recommend choosing one day each week to fast. A fast can be strict, not allowing anything to enter the body. Or, it can include water and fruit juices. Whatever you choose, keep in mind that the goal of your fast is to purify the body and mind. For me, once a week is unrealistic. I choose to fast on Ekadashi, the 11th day of each lunar month, observed by yogis to be an auspicious day.

7. Practice ahimsa: The first of the yoga observances (yamas), ahimsa or nonviolence can be applied to the food we eat. Making environmentally-conscious health choices that do not harm other people, animals, or the planet takes conscious awareness. Keep in mind that small, seemingly insignificant changes in the way you eat and live can have big implications. Above all, remember that you are gods and goddesses, and your body is a temple! Keep food choices simple, pure, fresh, and use your best judgment. Your inner yogi knows best.

Foods to Eat When Following a Yogic Diet

Fruits of all types, especially those that are naturally sweet, All vegetable, Whole grains, especially oats, wheat, and rice, Beans, tofu, mung, aduki, Plant-based oils, like sesame, sunflower, and olive oil, Nuts and seeds, yet not salted or overly roasted, Natural, raw sugar, maple, molasses, Herbal teas, water with lemon and/or lime, Sweet spices, like cinnamon, cardamom, mint, basil, turmeric, ginger, cumin, fennel, Food prepared with love, and gratitude given before consumption

Foods to Avoid or Reduce When Following a Yogic Diet

Meat and fish of all types, including eggs, Processed and/or artificial foods, junk food, artificial sweeteners, soda, Animal fats, margarine, Fried foods, Canned foods, except naturally canned tomatoes and fruit, White flour, white sugar, Garlic, onions, spicy foods, Stale or overly cooked foods, Microwave foods, Alcohol, tobacco, stimulants, Foods that are genetically engineered, Foods that are eaten in a rush or in a disturbed environment .A yogic diet can improve your body, mind, and spirit. For maximum benefit, combine these dietary suggestions with asana (physical postures), pranayama (breathing techniques), and meditation.

Health benefits

Following a plant-based, whole-food diet is foundational for nourishing all systems of the body. Below are some of the top benefits of switching to the yogic diet for both your physical and mental health.

1. **Improves digestion :**Studies support that plant-based vegetarian (and vegan) styles of eating promote healthier gut micro biomes. It makes total sense, as the more fruits, veggies, and whole grains you eat; the more fiber you consume—which we know feeds your gut flora and encourages regular bowel movements.
2. **Boosts your metabolism :**Optimizing metabolism will result in improvements in both energy and digestion. Scientists have shown that plant-eaters on average have a higher resting metabolic rate than meat-eaters, which means they are burning more calories throughout the day, even at rest.
3. **Increases your energy :**Foods like nuts, whole grains, and legumes have a low glycemic index (GI) which means they're digested more slowly, providing your body with a steady stream of energy. These whole foods are also nutrient-dense, fueling your cells with the micronutrients they need to function properly.
4. **Reduces risk of chronic diseases :**Multiple studies have found that people who follow a vegetarian diet are up to 22 percent less likely to have coronary heart disease than meat-eaters. Due to high intakes of plant-based, antioxidant-rich foods, research has also shown that vegetarians have a lower risk of diabetes, cancer, and other chronic health conditions.
5. **Improves your mood :**Research continues to explore the powerful gut-brain connection, which supports the premise that what you eat impacts emotion. One systematic review revealed that people who increased their intake of plant-based foods (such as fruits, vegetables, and whole grains) had a reduced risk of depression, whereas another study found that diets high in processed foods were associated with higher risk of depression.

How to follow the yogic diet

To make the switch to the yogic diet, start by planning meals and snacks that include a balance of proteins, carbohydrates, and fats. You can do this by choosing different fresh fruits

and veggies, nuts, legumes, dairy, and whole grains (all of which are "approved" on the yogic diet). The exceptions are onions and garlic, which are thought to increase heat in the body. While not necessary, the yogic diet strongly recommends opting for organic, non-GMO foods, as well. The less processed the food, the more "pure" (or sattvic) it is, which yogis believe affects how your body and mind react to it. The yogic diet has guidelines for drinks, too. Cut out (or cut back on) alcohol and caffeine, which over-stimulate your body, and drink more water or herbal tea instead. Most importantly, it's not just about what you eat, either—it's also how you eat. The yogic diet encourages mindful eating, whether it's slowing down to really chew and savor your food or eliminating distractions while you eat so you're 100 percent present.

Conclusion

The more we eat healthy, the less natural it feels to reach for a piece of cookie or a bag of chips when we get hungry. It is then not a matter of depriving ourselves or forcing ourselves, but simply a conscious recognition of respecting what feels the best for our body in the long-term run. When we eat healthy, we physically feel good. We mentally have more energy to do the things that matter. When we are both globally conscious and personally healthy in our eating choices, we are contributing to the welfare of the planet. Our decision to practice healthy eating habits has so many consequences in so many ways. Now that you have all the information you need on eating healthy, the most important action step you can do is to maintain this lifestyle choice as much as possible.

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EFFECT OF SPORTS ON GENERAL HEALTH

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INTRODUCTION:

Positive effects from sports are achieved primarily through physical activity, but secondary effects bring health benefits such as psychosocial and personal development. Negative effects, such as the risk of failure, injuries, eating disorders, and burnout, are also apparent. Because physical activity is increasingly conducted in an organized manner, sport's role in society has become increasingly important over the years, not only for the individual but also for public health.

Sports have an immense impact on a person's daily life and health. They do not just giveyou an interesting routinebutalsoahealthy body. Getting indulged in physicalactivities like sports improves your heart function, reduces the risks of diabetes, controls blood sugar, and lowers tension and stress levels. It also brings positive energy, discipline, and other commendable qualities to your life. Playing sports strengthens your body and also improves yourmusclememoryandmusclecoordination.Primaryhealthcaredoctorsrecommendtaking part in sports on a regular basis. There are countless benefits of sports.

Weightcontrol

The problem of obesity is faced by millions across the globe. Being obese increases the risks of hypertension and heart diseases. One of the best ways to get rid of obesity is by indulging in sports. Physical activity helps you control your weight. Most sports are intense physical activities that burn extra calories quickly and efficiently. Taking part in sports is a great way to burn away all that extra weight and get the ideal body shape.

Playing sports, while managing a proper diet plan, can prove to be far more efficient than anything else. Obesity is caused by the extra fat present in your body. This body fat can be burned by working out. The only problem is that working out feels like a chore and more tiring. On the other hand, sports are fun. You keep playing even after getting tired because you enjoy it.

Lower Hypertension

Hypertension or high blood pressure is a key health risk for people from all sides of the world. Hypertension can basis a stroke or other health diseases. Regular physical activity help you keep the blood pressure normal. Sports provide you with all the stretching, running, and exercise that you need. Thus, taking part in sports can be a great way to tackle high blood pressure. Most health experts and doctors recommend people suffering from hypertension to take regular exercise. Sports are the best form of physical workout that's both interesting and thrilling. People who take part in sports regularly are found to maintain normal blood pressure as compared to those who do not.

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Lower cholesterol levels

Playing sports helps you control your cholesterol level. Exercise helps you maintain a lower cholesterol level. According to multiple types of researches, it was proved that people with high physical activity had lower cholesterol levels as compared to those who maintain a sedentary lifestyle. Physical activity is very important for maintaining a low cholesterol level. Top athletes like Hushen Bolte and others are found to have amazingly low cholesterol levels even after thirty years of age

Good blood circulation

Blood circulation begins to improve as athlete play sports. By playing sports or taking part in other physical activities the body remains well-oxygenated. Thus, People stay more strong and dynamic health. Being active might also add to hemoglobin count and blood volume. When you play, your heart starts to pump faster and an extra load is put on your heart muscles. This extra load strengthens your heart muscles which improve the overall flow of blood. Regular aerobic work out increases the capillary solidity of working muscles in a healthy way. Aerobics also increases the mitochondrial count in the fibers of working muscles. Your heart starts to function better, resulting in a better heart pumping rate. The overall result is that you can exercise harder under less stress.

Stronger immunity

Yes! You read it right. Regular physical work out also strengthens your immune system. Your body becomes immune to a lot of diseases. Exercise increases the rate of flow of white blood cells notably. As you sweat while playing sports, toxins are removed from your body. The rise in body temperature also lowers the chances of bacterial growth.

Muscle training.

Sports are the best way to have a proper muscle workout. It is fun to play and does not feel like a chore. At the same time, they give you strong and toned muscles. This is only possible if you continue to play active sports like soccer, football, tennis, and baseball regularly. By engaging in sports you tone your muscles and train them for working together. It is known as neuromuscular programming. As you play your muscles turn into stronger and stronger. By playing sports you increase incline muscle mass and burn fat at the same time. If you want a perfectly lean body with shredded six-packs and muscles, this field might prove to be more helpful than the gym. For gaining such muscles you must prefer sports that involve the movement of most of your muscle groups. The body type of top athletes is an motivation for all of us.

Stronger bones

Taking part in sports and physical activites not only strengthens your muscles but also your bones. During sports you put pressure on your bones with high power and strength movements; this, in turn, develop your bone density which results in stronger bones. For example, unlike normal walking, running while playing puts extra load or stress on your bones. In order to survive this increased loaded stress the bones adapt and become denser. If you continue to take part in sports, your bones keep becoming stronger and denser due to the continuous stress. As we grow old our bone density keeps on decreasing. Indulging in sports might be the easiest way to maintaining a good bone density and remaining strong with advancing age.

Stronger mind

Sports develop a positive mind-set to your life. Physical activity and sports make your mind sharper and stronger. Sports are fun to play and they refresh your mind. Being good at sports makes you feel good, skillful and boost your confidence. Playing team sports also boosts your tactic- making ability. By sports, you learn to make decisions quickly and instinctively. This quick decision-making ability is of high use in everyday life. Sports also teach you to stay calm

and think with a cool mind. They teach you to make decisions in high-stress situations without panicking or getting hyper.

Conclusion

In today's world, sports form an integral part of the society's culture. Participating in sports is an important aspect of overall development and has many benefits. Sports improve the health status of participants and foster the development of fundamental skills that are important in facing different challenges in life. Other benefits of sports include fostering social co-existence and peace, encouraging community development, financial gains and fostering international unity.

Sports activities help reduce body fat and help build body mass, slow down the aging process, improve body balance and coordination, and minimize risks of injury. Sport is an effective tool that can be used to pull resources together to fight diseases. Research by the World Health Organization has shown that regular physical activity affords people numerous physical, social, economic and mental health benefits.

A coach with these qualities instills them in players and they express these traits in their behaviors. Sports are important in the society because they improve the overall quality life, foster social inclusion and help to eradicate anti-social behaviors in young people. In addition, they improve the health status of individuals thus promoting their well-being.

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GENDER DISCRIMINATION IN INDIAN SPORTS

♣NIDHI KATTI & Dr. RAMESH KAMBLE♦

Introduction: -

Sports in Indian has always been gendered specific. The patriarchy has equipped the sports system in India. Sports in India has a huge history of gender discrimination from Vedic age. The modern 21st century too has not provided equality and equity for women in sports. Resources, opportunities, motivation, support from family, facilities in all these matters Indian sports imbibes gender discrimination. There are lot of acquittances of India sports women with gender biasness, which are documented by reporters, and many are unmentioned and unreported. The scope of the paper geographically is restricted to India. The paper covers the social, economic, cultural, educational, political, and administrative reasons for gender discrimination in Indian sports. The scope of the paper specifically concentrates on gender discrimination issues of Women and Transgenders in Indian sports.

Objective: -

The main aim of the paper is shed light on the gender discrimination issues being faced by women in Indian Sports. Through a holistic approach the paper evaluates how, why, where and from whom the gender discrimination is taking place in Indian Sports. The paper also focuses on the solutions to eradicate gender discrimination in Indian Sports.

Methodology: -

Qualitative research design and has been used in the formation of this paper. Analytical method, critical evaluation method, observation methods have been imbibed to this research. Primary and secondary both type of sources is the database for this research. Personal experiences and observations are used as primary source.

Historical Background of Gender Discrimination towards Women in Indian History

Common women in ancient India used to play Indoor entertainment games but they were not allowed to play outdoor games. Some ancient and medieval periods queens and princess used to learn some outdoor games but there are no frequent mentions about women being part of general outdoor sports. On the outer walls of some temples, we find the sculptures of women at war with armoires. But when seen ancient and medieval society women were not permitted to play sports. After the impact of colonial women on Indian women they started playing games such as table tennis, badminton, carom, and chess. But that was restricted to private playing. Still women in India were not allowed play Infront of public. . Pandit Ramabai, Annie Besant, Savitribai Phule many other women who provided opportunities for women to play games through their organisations can be called as the pioneers of women sports in India. From 1952 active participation of Indian women in sports started.

Indian Women and Discrimination in Sports

Indian sports are filled with patriarchy same as the Indian society. From Vedic age women in India are kept away from sports. Outdoor games were never made for women. Sports was seen and being seen as a sign of masculinity in India from centuries. The impact of colonial rule changed a bit of environment which provided opportunities for women in sports, but it didn't

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change the mentality of Indian society. It was believed that women don't have enough physical stamina to be part of sports. The orthodoxy is rooted so deep that sports in 20th as well as in 21st century became a common career option for women. There are many reasons and phenomena for the discrimination in sports concerned with women. Some of them have been listed below

1. From childhood girls in India are given feminine toys such as dolls, kitchen set etc. Whereas boys are given trucks, cricket set, football, basketball etc. Girls are not allowed to participate in co-ed sports activities by parents and schools and colleges. Many times, mothers themselves restrict their girl child only to study and not allow them to participate in any sports computation. Indian parents think that if girls play sports outside house, then their skin tone will get darkened, and it will create lack of grooms. Girls who can win many Talukas level, District level and state level school sports computation are drowned under the prejudice mentality of parents. Before educating girls to participate more in sports there is a need to educate Indian parents about the opportunities a girl can gain through sports, Government should start an initiative in which through advertisements, social media, and regional administrative sections awareness about the welfare of a girl through sports can be spread all over India.
2. There is lack of good physical education teachers or sports instructors in schools and colleges both in urban and village areas. If a girl wishes to learn any sports, she doesn't have anyone around her to teach her in village areas from where the major female participants in sports can be grabbed. If a girl wishes to learn any sports, she doesn't have anyone around her to teach her in village areas from where the major female participants in sports can be grabbed. In urban areas girls can learn their beloved sport outside their educational institution. Government should induce an educational law which should contain sports instructors as compulsory element of all the educational institutions of the country.
3. There is a huge political submissiveness on sportswomen in India. Politicians easily don't support their own state sports playing state and national level champions. Many of the politicians don't provide any special facilities concerned with sports for sportswomen. The funds released by the government for these female sports champions will be swallowed by greedy politicians. The true beneficiaries of the fund will not get the benefit.
4. The administrative section which handles getting permissions for sportswomen to participate in state, national and international sports computation is filled with parochialities, bribe, unworthy rude behaviours of the officers, molestations, sexual harassments etc. Sportswomen get stuck with these officials at regional level to get permission. Many sportswomen keep themselves away from sports because these administrative issues subsequently some are purposely and forcefully kept away from sports by administrators.
5. Economy of family matters a lot for females to get into sports. Girls from economically lower background Girls from economically lower background most of the time skip their passion for sports due to balance their family's condition.There are many free training centres for sports women in India; but there is lack of awareness about these institutions in youths so the needy girls who could be an asset for Indian sports miss out their opportunities.
6. In Indian educational institutions sports is an optional activity during free periods for girls. The sports as a subject are not taken seriously particularly for girls in schools, colleges, and universities. Many schools, colleges and universities don't have a separate as a separate subject. There are no sports instructors, physical education teachers or lecturers in these institutions. Female students who are interested in sports are not getting information about the opportunities in sports. But after the evolution of internet students can get information about everything through just a single tap. Schools, colleges, and universities should provide

computer facilities and should encourage female students to operate them and get information about their career plans. Government should announce a mandate according to which every school, college and universities should have both male and female sports instructors for both girls and boys of the concerned campuses.

7. The orthodox culture and traditions are cause root for present day actions. According to the Indian tradition and culture women are not meant to play like a man outside on the ground. Females should be grounded and feminine in personality. Earlier sports were symbol of masculinity. Subsequently, women were not allowed to watch the sports too in public. Sports was a gender-based profession or passion and was restricted to only male gender. The same orthodox mentality has been continued and till today sports is seen as sign of masculinity in India. A very small population of the country knows women sports teams of different sports games and watches them compared to the male sports teams of different sports in India. There is need to remove sports from gender specific act tagline. Parents, teachers, educational institutions, and society as whole should try to eradicate gender discrimination in sports towards women.
8. The equity between the participation ratio of men and women at regional state, national, and international level is mirror of gender discrimination in sports. The participation in sports percentage for men is 58% whereas only 28%of Indian women are part of sports.
9. Parents, teachers and educational institutions create a homophile sports environment for girls where the other gender cannot enter, and the inner gender cannot enter the outer genders walls. Sportsmen and sportswomen never compete against each other; they always compete with same gender individual. This gendered category of sports in biased and unscientific. For new generation intergender computation should be introduced where men and women can compute against each other in every sports.
10. Lack of physical education and sports studies departments and courses in colleges and universities degrade the percentage of women choosing sports as a subject for higher education. Particularly in rural sector colleges should provide sports as subject and course option because girls in rural areas usually have more physical stamina because they imbibe themselves in more physical activities per day.

Indian Transgenders and Discrimination in Sports

Indian society does not see transgenders as part of the society. There not even a single transgender in India who has played high level sports [state or nation] or was not allowed to represent their own land in international games. Trans men and trans women are not accepted well by coaches, teams in India. There is not separate category of team for transgenders to get into sports. They must fit in themselves in the women's or men's teams according to their birth sex. Hesitation, confusion, mental trauma etc occurred the mind of 'sportstransgender'; because physical they will be of other gender and from mentally, behaviour, attitude they will of another gender. Many sportstransgenders quite their ambition and passion for sports to not quite their gender identity. The sportstransgenders face lot bullying, dressing room harassments and insults from teammates which will cause a huge mental trauma. Asian games and Olympics have given permission for transgenders to participate. But Indian government has not taken any action in the construction of equal sports laws in the country for men, women, and transgenders. There is huge transgender population which is interested in sports and wants to be part of sports. In 2017 Kerala State Sports Council at Thiruvananthapuram had organized India's First Transgender Sports meet in which around 100 sportstransgenders from 14 districts had participated. The transgenders are getting hindrance from, administrators who are main authorities to send the participants for national and international level games. Their signs are required on the documents concerned with participation. These administrative officers many of the time do not

co-operate with transgenders and ask for sexual pleasures or bribe. Cases of sexual harassments, insults of sportstransgenders stay unnoticed, unreported, and unmentioned. The government should take actions in creating national and state level separate teams for transgenders for all outdoor sports. This step will bring regional level change and provoke transgenders to participate more enthusiastically in sports.

Gender Test as Symbol of Gender Discrimination

Gender test in Indian sports is only restricted to sportswomen. Sportsmen do not undergo through this test. It was introduced by International Association of Athletics Federation (IAAF) in 1950 at India. This was a biased, prejudiced, unscientific test which used to authenticate a womanhood based on hormones of a woman's body. According to this test if a sportswomen used to high testosterone, then she was not considered as women was prohibited to participate in sports from female category. This unworthy gender discriminative test destroyed the sports career of many women in India. In 1992 this gender biased test was prohibited.

Conclusion: -

Sports in India should free from all type of discrimination. Society should try hard to create equity and equality in sports. Not only for women but all the existing genders (LGBTQUA) should be accepted equally as men. Sports is free from all rigidness of society; sports are not played by the gender but by the soul of that gender. It is the responsibility of mothers to enrol their daughters more in sports without caring for darkened skin. If today's mothers take this step, then our future generation will face less gender discrimination in sports.

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A STUDY ON SPORTS INJURIES: TYPES, TREATMENT AND PREVENTION

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Abstract : There is nothing worse than dealing with a nagging athletic injury. Whether you are an elite athlete or a weekend warrior, the guiding principles of treatment and prevention of common **sports injuries** all remain the same. Here we will discuss the top five reasons why athletic injuries occur and provide some insight on how to prevent them. Chronic wear and tear of muscles, tendons, and joints can produce fatigue and overtraining muscle strains and cramps. This may simply be due to lack of adequate rest and insufficient time for muscles to recover and heal themselves. This is why it is crucial for coaches and players to be aware of cross training and alternative activities with different styles, tempos, intensities, and time frames of exercises. Taking breaks also helps the athlete break through a plateau in their training regimen, in addition to avoiding overuse injury of the same worn down musculotendinous complex, it confuses the "muscle memory "pattern of the athlete and allows them to face and grow in new challenges. When athletes have a period when they are on Injured Reserve or dealing with either an acute or chronic injury, oftentimes they believe they can go back to pre-injury performance levels immediately. However, this is not the case. After an injury, when an athlete is medically cleared to play, they should only do 10% of the intensity of the work when common sports injuries are sustained and patients are in the rehab phase, it is important that the therapists bear in mind that the athlete has to overcome two challenges. The first is complete healing of the damaged structure and tissue, and second is reconditioning of the musculotendinous complex. So early on, modalities should include: stretching, range of motion, gait training, iontophoresis, electrical stimulation, shockwave therapy, PRP, Amino therapy for example. Afterwards, their regimen should focus on sport specific muscle strengthening exercises. At they normally do on the first session and consult with coaching staff to plan a progressive regimen to work their way back up.
Keywords: Immobilization, physical therapy and surgery, bones, muscles, tendons, ligaments and other structures.

Introduction

Sports injuries are common and can occur throughout your body to bones, muscles, tendons, ligaments and other structures. You can treat many minor injuries at home with rest, ice, compression, elevation and over-the-counter pain medications. But some injuries require medical treatment, such as immobilization, physical therapy and surgery. Exercise is important to good health, but people often get hurt when participating in sports or other physical activities. A sports injury involves damage to part of your body due to sports, exercise or athletic activities. A sports injury can be acute (sudden) or chronic (develop over time).

Sports injuries can happen to anyone, particularly people who:

- Are out of shape.
- Don't wear proper protective equipment.

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- Exercise without warming up and cooling down.
- Participate in contact sports that may involve tackling or collisions.
- Take part in activities that involve jumping, running and pivoting or changing direction quickly.

Most common parts of the body injured

Sports injuries can affect any part of your body. They most often affect:

- ❖ Achilles tendon: The Achilles tendon is a thick cord that connects the back of your lower leg (calf) to your heel. It helps you walk. But the tendon can become swollen, inflamed and stiff. It can even tear. This is called Achilles tendinitis or Achilles tendon rupture.
- ❖ Ankle: Your leg and foot join together at your ankle. It contains three joints, as well as several bones, cartilage, ligaments, muscles and tendons. Ankle pain is often caused by a sprained ankle.
- ❖ Elbow: Your elbow is the joint that acts as a hinge between your upper and lower arm. People often experience pain in their elbow from repeat motions and overuse (for example, tennis elbow and Little League elbow).
- ❖ Head: Your head includes your face, skull and brain. One of the most common head injuries is concussion.
- ❖ Knee: Your knee is a complex joint that acts as a hinge between your thigh and lower leg. It contains bones, cartilage, ligaments and tendons. Knee pain can be caused by jumper's knee or runner's knee. Other common injuries include meniscus tear and anterior cruciate ligament (ACL) tear.

- ❖ Shoulder: Your shoulder connects your upper arm to the trunk of your body. It contains your rotator cuff, a group of muscles and tendons that keep the upper arm in your shoulder socket. Rotator cuff tendinitis and rotator cuff tears are common sports injuries.

Most common sports injuries

There are many types of sports injuries. Some of the most common are:

- ❖ Broken bone: A broken bone (bone fracture) can happen when sudden force is applied to a bone.
- ❖ Cartilage tear: Cartilage is a tough but flexible shock absorber that covers and protects the ends of some bones. Cartilage injuries can occur in joints such as your knee and shoulder.
- ❖ Concussion: A concussion is a brain injury caused by a bump or blow to your head.
- ❖ Dislocation: Dislocation occurs when the end of a bone moves out of its normal position in a joint. For example, if your shoulder pops out of its socket, it's dislocated.
- ❖ Tendinitis: Tendinitis occurs when your tissues that connect muscles to bones (tendons) become swollen and inflamed. It's caused by repetitive movements over time. An example is jumper's knee (patellar tendonitis).

- Sprains: A sprain happens when a ligament stretches too much or tears. Ligaments connect bones and stabilize joints. These injuries can be mild or severe, and they're common in your ankle, knee and wrist.
- Strains: A strain occurs when you overextend a muscle and it stretches or tears. Examples include hamstring strain, back strain and abdominal strain.

Symptoms and causes

Sports injuries have many causes, including:

- Accidents, such as a fall.
- Bad habits with exercise, such as not warming up or stretching enough.
- Lack of safety equipment, or gear that's damaged or worn incorrectly.
- Shoes that don't fit well or provide enough support.
- Sudden start to an exercise program or significant increase in physical activity that your body isn't used to.

Symptoms of a sports injury

The signs and symptoms of a sports injury depend on the type of injury. Common symptoms include:

- Aches, pain or tenderness.
- Bruising.
- Deformity, such as a bone or joint looking out of place.
- Decreased range of motion.
- Grinding, cracking, clicking or popping noise.
- Inability to bear weight on your hip, leg or foot.
- Skin that's warm to the touch.
- Stiffness or weakness.
- Swelling.
- Trouble moving a body part normally (for example, you can't move it as far or it locks up when you try to move).

Diagnosis and tests

To diagnose a sports injury, your healthcare provider performs a physical exam. They'll ask questions about what happened and what symptoms you've had. They'll also look at the injured area, possibly testing how it moves.

Depending on the type of injury you have and how severe it is, your healthcare provider also may recommend imaging tests. An X-ray, CT scan or MRI can create pictures of the structures inside your body. The images will help your healthcare provider understand, diagnose and treat your specific injury.

Management and treatment

Treatment for sports injuries varies widely, depending on the type and severity. Many sports injuries heal in a few days or weeks with rest and at-home strategies. But for more serious injuries, treatment may involve:

- Immobilization with a cast, splint, sling, walking boot or other medical device.
- Injections to reduce swelling and pain.
- Prescription anti-inflammatory medications.
- Surgery to correct fractures or repair ligament, tendon or cartilage tears.

- Physical therapy (also called rehabilitation or rehab) to heal and strengthen injured body parts.

Prevention

There are many ways you can help prevent sports injuries.

- Choose sports and activities that are less dangerous (for example, avoid sports that involve collisions and tackles).
- Don't play the same sport or do the same activity year-round. This is especially important for children.
- Mix up your routine. Your body needs a combination of cardiovascular (aerobic) exercise, strength training with weights or resistance, and flexibility.
- Drink plenty of water before, during and after any exercise.
- Learn proper technique and use it all the time.
- Listen to your body and don't push too far. Rest when you're tired. Stop any activity that doesn't feel right.
- Start slowly and build gradually. For example, start with walking and build up to jogging before you enter a race.
- Stretch before and after every workout. Warm up before and cool down afterward.
- Wear proper shoes and safety equipment, and make sure they're always in good condition.

Outlook / prognosis

The outlook after a sports injury varies, depending on the type and severity. Most sports injuries are minor and heal in a few days or weeks with rest and simple recovery strategies. Other injuries, such as broken bones and concussions, need medical intervention and can take several months to heal.

Living with

If you get hurt during physical activity, stop playing or exercising immediately. You can cause more harm if you keep going.

Most minor sports injuries get better in a few days with the RICE method:

- Rest: Don't use the injured area for a few days. If you injured your lower body, consider using crutches so you don't put your weight on the injured area.
- Ice: Put ice or cold packs on the injured area to reduce pain and swelling (for example, 15 to 20 minutes every four hours).
- Compression: Wrap the injured area in an elastic bandage to provide support and reduce swelling. Make sure it's snug, but not so tight that it hurts or cuts off blood circulation.
- Elevation: Prop up your injured body part, if possible above the level of your heart, to rest it and reduce swelling. Use a pillow or something similar to keep the injury above your heart.

You also might consider taking nonsteroidal anti-inflammatory drugs, such as ibuprofen or naproxen. As you start to feel better, go back to sports and other activities slowly. Make sure you can move the area without pain or stiffness. This will help ensure that you don't injure yourself again or make the injury worse.

Medical attention for a sports injury

Even though many sports injuries can be treated at home, you should seek medical attention for:

- Pain that interferes with movement and doesn't get better over time.
- Massive swelling that doesn't slowly decrease.
- Extreme bruising or bleeding.
- Inability to use the injured area.

- ❖ Obvious deformity, such as your leg bending in the wrong direction.

Conclusion

Have you ever been to a gym and see a person that has a chiseled upper physique, however, when looking upon their lower extremities you think "whoa..what happened?" That person consistently skips leg day. Similarly, athletes can get carried away with focusing too much on a particular muscle group and neglect the corresponding antagonistic muscle groups which can lead to a deformity in the long run. For example, only working the pectorals muscle group while neglecting the back and muscles of posture will lead to a kyphosis or hunched over back deformity. Furthermore, for athletes like volleyball or baseball players, the accessory muscle groups are crucial to their every day performance. So in addition to working their lattisimuss dorsi or biceps, they cannot neglect their rhomboids, teres minor, major, nor trapzezius. Review with your coach exercises and stretches one can do for a balanced regimen.

To think that a common sports injury sustained while practicing during a high impact activity will simply go away on its own is both foolish and dangerous. The mantra of "walking off" an injury is blasphemous in the medical literature and can even produce further damage and injury. See your local podiatrist to determine the grade of your injury, and they can come up with a plan of relative rest or safe alternating exercise activities while you recover.

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EFFECT OF CALISTHENICS EXERCISE ON PHYSICAL VARIABLE AMONG SCHOOL LEVEL FOOTBALL PLAYERS

VIJAYALAXMI MUGALOLLI♣

Abstract : The purpose of this study was to find out the Effect of Calisthenics Exercise on Physical Variable among School Level Football Players. In this there are total of 60 school boys age of 13-15years be selected at random from Vijaypura District, Karnataka State, India. They will be assigned into two groups equal groups. For the present study pre test – post test random group design which consists of control group and experimental group was used. Calisthenics exercises were considered as independent variable. The dependent variable were this study endurance, the duration of the training period was restricted five days per week to 8 weeks. The level of significance was fixed at 0.05 levels, which was considered to be appropriate. The data was collected immediately after the training period.

Keywords: Calisthenics Exercise. Physical Variable and Football Players

Introduction

Football is a team sport in which two teams play against each other to score their spherical ball in the other opponent's net (what we call a 'goal'). Both teams usually have 11 players in different positions on the pitch. Each positions main aim is to keep the opposing team from scoring a goal in their net. It's a strategic game and requires tenacity and skill. Players also tackle and battle to get the ball from opposing teams to overall try and score a goal for themselves.

Football is the most popular sport worldwide. It is also called "soccer" in some countries. It is an outdoor game that requires absolute athleticism as players have to hustle and run across the field with the ball throughout the game. The name of the sport was derived by the way it is played. This sport took its shape in the 18th century.

China being the mother of Football may raise a few eyebrows. In early days, this sport was played by kids in China which was later picked up by the senior fellows. Despite the origin in Asia, the sport was well received and adapted by people of Europe and South-American countries. Spain, Italy, Brazil, Argentina, and England are some of the best football playing countries. At the same time, there are international tournaments organized in Europe that many clubs participate and compete in for a prestigious cup.

Football is played by two teams on a large rectangular shaped grass field. There are two goal posts on both ends of the breadth of the field. Both the teams vie for the ball by tackling each other and try to kick the ball into opponent's goal post. The goalkeeper can only stop the ball with hands within a restricted area around the goal post. Rests of the players have to play by kicking the ball and passing it within teammates.

The objective of a football team is to score a goal more than their opponent and win the game. A goal is scored when the ball passes the goal line. Players can use any part of their body to score the goal but not their hands.

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Methodology

The purpose of the study is to find out the Effect of Calisthenics Exercise on Physical Variable among School Level Football Players. Sixty healthy, untrained students were selected from Vijayapura District, Karnataka State, India. The subject's age ranged from 13 to 15 years.

The selected subjects were divided into two groups with fifteen subjects in each group selected randomly, with one experimental group and one control group. Experimental Group I underwent the calisthenics exercise and Group II Control group. The training periods of experimental groups were 8 weeks, five days per week with duration of 60 minutes. Control group did not undergo any training programme rather than their routine work.

Endurance, the distance of all running was measured to the timing distance was recorded in seconds

S.NO.	Variable	Test item	Units
I	Endurance	12 Min Cooper test	Mts

Statistical procedure

The collected data of experimental and control groups were statistically analyzed by using mean standard deviation and t- test and presented in Table 1. The level of significance was fixed at 0 .05 level of confidence with the table value of 2.04. The t-values of 12.035 and above were considered significant in this study. In the tables it was denoted by star (*) which indicates 0.05 significant level.

Results and Discussions

Table No.1.Shows the Mean, Standard Deviation and 't'- value of Pre-test and Post–test for Calisthenics Exercise Experimental Group and Control Group on Endurance performance.

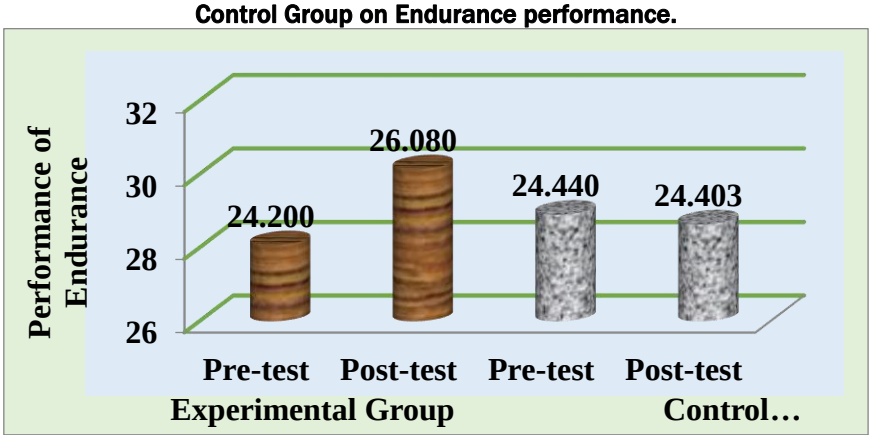
Variable	Groups	Test	N	Mean	SD	t- Value
Endurance	Experimental Group	Pre-test	15	24.200	3.36650	12.035*
		Post-test	15	26.080	3.31562	
	Control Group	Pre-test	15	24.440	3.37984	.442
		Post-test	15	24.4036	3.58356	

The level of significant 0.05=Table value =2.04

Table No 1. Indicates that the't'- value is more than the table value that is 2.04, hence it is significant.

The pre-test mean value is 24.200 and the post-test mean value 26.080. The post-test mean value is less than pre-test mean value. It shows significant improvement in the Endurance performance of School Level Football Players owing to the eight weeks Calisthenics Exercise. The pre-test mean value is 24.440 and the Post-test mean value 24.4036. The post-test mean value is more than the pre-test mean value. It is shows no improvement in the Endurance performance of School Level Football Players subjects control group did not undergo any kind of training Programme the same as displayed in the figure 1. (a)

Figure No.1.The Pre-test and Post–test for Calisthenics Exercise Experimental Group and Control Group on Endurance performance.



The above figure1. (a) Indicates that the post test values of Experimental group significantly improved the performance of Endurance and also the post-test values of Endurance were less than the pre- test values due to 8 weeks of Calisthenics Exercise. The Control group pre- test and post- test performance of Endurance shows no improvement.

Conclusions

The results of the present study indicate the Effect of Calisthenics Exercise on Physical Variable among School Level Football Players. In the experimental group the selected variable were significantly improved in the teach us that Calisthenics Exercise is useful to everyone in particularly sports persons to achieve the higher performance level because the selected variable in the study were more related to the sports men too. Further the control group post test means score indicates that the Calisthenics Exercise not improvement.

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EFFECT OF YOGIC EXERCISES ON AEROBIC CAPACITY (VO2 MAX)

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Abstract: Yoga is considered to be a very good exercise for maintaining proper health. It produces consistent physiological changes and have sound scientific basis. It is claimed that yoga practices improve various cardiorespiratory fitness parameters. Aim: To find the effect of short-term Yoga practice on aerobic capacity (VO2 max.) Objective: To measure aerobic capacity (VO2 max.) Before and after Yoga practice. Material and Methods: The present study was conducted on 60 Degree college students (40 males and 20 females) within the age group of 18-20 years. VO2 max was measured using bicycle Ergometer in our 'Exercise and Sports Physiology' laboratory. It was recorded at start of study (baseline) and then after 12 weeks of yoga therapy. Results: For both the genders VO2 max was found to be increased after yoga therapy for 12 weeks. Conclusion: the present study concludes that yoga practice can be used to perk up cardio-respiratory fitness.

Keywords: Yoga, VO2 max, Cycle ergometer.

Introduction

Now-a-days, more persons are interested in 'physical fitness' than any time before. Physical fitness depends mainly on cardio-respiratory endurance of an individual. VO2 max (maximal oxygen uptake / maximal aerobic power/ aerobic capacity) is widely accepted as the best measure of cardio-respiratory endurance. VO2 max refers to the level of oxygen consumption beyond which no further increase in oxygen consumption occurs with further increase in the severity of exercise. It is expressed as 'milliliters of oxygen used in one minute per kilogram of body weight'(ml/kg/min). VO2 max is probably the best physiological indicator of a person's capacity to continue severe work. In sports, where endurance is an important component in performance, such as cycling, rowing, cross-country skiing, swimming and running,

Materials and Methods

In the present study, a total of 60 Degree college Students (40 male and 20 female) in the age group of 18-20 yrs. participated voluntarily. All the volunteers were fully informed about the study and written informed consent was obtained. The volunteers with past or present history suggestive of cardiovascular or respiratory illness or any other systemic illness, history of major surgery in the recent past, family history of asthma or allergic diseases, history of cigarette smoking, tobacco chewing, alcohol intake etc, subjects with previous experience of Yoga training or any other active sports training were excluded from the present work After being selected in the study, detail history was noted from each volunteer. All the participants were instructed not to do any other physical exercises like sports, athletics or resistance training during the present study. Then height, weight and BMI were recorded. VO2 max was measured using A strand-Rhyming cycle ergo meter test in 'Exercise & Sports Physiology' Bagalkot. The subject is asked to pedal at 50 revolutions per minute and try to keep it constant for at least 6 minutes. The continuous monitoring of heart rate by counting the pulse for the last 10 seconds of each minute of ride was done. Load was adjusted such that heart rate should rise to a level in the target range (125 to 170 beats /min) and then this level was maintained relatively constant during last few minute of ride. Final count was made during last 10 seconds of the sixth minute

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of ride. Estimation of VO2 max was done by using modified A strand Rhyming nomogram.2 After measuring world class athletes typically have high VO2 max.1 In baseline VO2 max, students were trained by experts recent times, medical fraternity is much attracted towards beneficial effects of Yoga. It is claimed that yoga practices improve various cardio-respiratory fitness parameters. In view of this, the present study was undertaken to see whether yoga has any effect on VO2 max. Also, to note the difference, if any, in the values of VO2 max obtained before and after yoga practice and to discuss the results in view of the results obtained by other workers from Yoga Kendra. Then they performed the Yoga Practice (Asanas & Pranayama) in the evening for one hour, six days in a week, for 12 weeks under expert's observation. Yoga practice consisted of - Prayer & Omkar Recitation (5 minutes) followed by in sequence Asanas like Naukasana, MatsyaBhujangasana, Shalabhasana, Dhanurasana, Shavasana (for next 30 minutes), then breathing exercises like Kapalbhati and Yogic Shwasan (for next 10 minutes), then followed by Pranayama like NadiShuddhi, Bhastrika and Bhramari (for last 15 minutes). After 12 weeks VO2 max was measured again and Data was analyzed statistically using 'z' test separately for males and females using SPSS software. Stimulation of parasympathetic activity during Yogic Training. Conversion of some of the Fast Twitch muscle fibers into Slow Twitch muscle fibers during yogic training. Slow twitch fibers have high.

Results

Table 1: Effect of Yogic Exercises on VO2 max. (ml/kg/min) in males

Test	n	BeforeYogaMean±S.D.	AfterYogaMean±S.D.	Pvalue
VO_2max	40	30.33±3.50	33.1±4.38	*P< 0.001

Table 2: Effect of Yogic Exercises on VO2 max (ml/kg/min) in females

Test	N	BeforeYogaMean±S.D.	AfterYogaMean±S.D.	Pvalue
VO_2max	20	27.75±2.27	30.43±2.23	*P< 0.001

(n= No. of subjects, * = highly significant)

Table 1 shows change in VO2 max in male subjects whereas

Table 2 represents change in VO2 max in female subjects. Both the groups show statistically significant increase in VO2 max after Yogic Exercises.

Discussion

$\dot{V}O_2$ max. is very importance for physical performance as well as for the health in general. It has been used as an index of cardio respiratory fitness. $\dot{V}O_2$ max can be determined using variety of exercises that activate the body's large muscle groups, provided the intensity and duration of effort are sufficient to maximize aerobic energy transfer. The usual exercises modes include treadmill running, bench stepping and stationary cycling. High $\dot{V}O_2$ max requires integration of high levels of pulmonary, cardiovascular and neuromuscular function. So, $\dot{V}O_2$ max is a fundamental measure of physiologic functional capacity for exercise.1 Ray U.S. et al (2001)3 observed significant improvement in VO2 max after Yogic training. Raju P.S. et al (1997)4 have found a significant increase in oxygen consumption per unit work after yoga training. Bera T.K and Rajapurkar M.V in 19935 reported significant improvement in cardiovascular endurance as a result of yoga training. Balasubramanian B and Pansare MS in 19916 observed significant increase in aerobic power (VO2 max) of muscles after yoga training.

In our study, as shown in table 1 and 2, VO2max in males and females show statistically significant

Conclusion

1. Yogic Exercises done for one hour daily including asanas, breathing exercises and pranayama seems to improve VO2 max.
2. In spite of Yogic Exercises being not very vigorous, VO2 max was found to increase.
3. Yogic Exercises can be of value in conditions of low cardio respiratory reserves, especially in patients in whom heavy exercises are contraindicated.
4. Yogic Exercises may be incorporated as a part of 'Physical Fitness Program' to improve cardio- respiratory efficiency in sport persons

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TESTS FOR DEXTERITY AND STEADINESS: THEIR USEFULNESS IN SPORTS

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Abstract : Psychomotor abilities are also referred as sensorimotor and perceptual-motor skills, they are studied as special topics in the experimental psychology of human learning and performance. Psychomotor learning is demonstrated by physical skills such as movement, coordination, manipulation, dexterity, grace, strength, speed—actions which demonstrate the fine or gross motor skills, such as use of precision instruments or tools, and walking. Dexterity refers to the ability of a person to use the fingers, hands and arms to perform a task. The quality of performance in daily living skills, work-related functioning, and recreational activities is determined to a large degree by hand function and manual dexterity. The Grooved Pegboard is a manipulative dexterity test consisting of 25 holes with randomly positioned slots. Pegs with a key along one side must be rotated to match the hole before they can be inserted, requiring more complex visual-motor coordination than most pegboard tests. Steadiness is the ability to maintain the body or a part of body in the fixed position or the ability to perform a smooth movement without any deviation from the desired course. Steadiness is adversely affected by muscle tension normally decreases as strength of contraction increases. Hole Type Steadiness Tester has been designed to measure one aspect of the psychomotor phenomena of steadiness. Hand dexterity and steadiness are psychomotor abilities most essential for sportspersons. Some of the sporting events where dexterity and steadiness are utmost essential is given in the present paper. Specific testing and training should become the part of sports training in order to gain higher performance in certain sporting events.

Keywords: Dexterity, Steadiness, psychomotor, testing, evaluation, training.

Understanding 'Psychomotor performance'

"Psychomotor" refers to how the brain's mental processes affect physical movement. Psychomotor learning is the relationship between cognitive functions and physical movement. Psychomotor learning is demonstrated by physical skills such as movement, coordination, manipulation, dexterity, grace, strength, speed—actions which demonstrate the fine or gross motor skills, such as use of precision instruments or tools, and walking. Sports and dance are the richest realms of gross psychomotor skills. It relates to psychological processes associated with muscular movement and to production of voluntary movements.

Psychomotor movements, or lack thereof, are directly related to what's going on in brain. For example, if a person is depressed, he will generally have less psychomotor activity as emotions leave feeling sluggish and weak. By contrast, one may exhibit accelerated psychomotor activity, such as fidgeting or making repetitive movements, during a manic episode when energy level is high. Psychomotor functions involve the combination of precise motor responses, attention, and cognitive problem-solving abilities.

Psychomotor abilities are also referred as sensorimotor and perceptual-motor skills, they are studied as special topics in the experimental psychology of human learning and performance. In research concerning psychomotor skills, particular attention is given to the

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learning of coordinated activity involving the arms, hands, fingers, and feet (verbal processes are not emphasized). A number of basic motor abilities underlie the performance of many routine activities. One category of abilities may be broadly referred to as manual dexterity, which includes fine finger dexterity, arm-wrist speed, and aiming ability.

Hand dexterity/ Functional dexterity

Dexterity refers to the ability of a person to use the fingers, hands and arms to perform a task. The quality of performance in daily living skills, work-related functioning, and recreational activities is determined to a large degree by hand function and manual dexterity. The hand has to be able to undertake extremely fine and sensitive movements and must also be able to perform tasks requiring considerable force.

Dexterity refers to the motor skill abilities in a person's hands. These are also referred to as fine motor skills. This is because they involve the use of small muscles in the hands and fingers. Essentially, dexterity requires the motor coordination of the hands and fingers with the eyes to produce a desired movement.

Dexterity, or the speed of coordinated movement, has long been considered as an important aspect of hand function (Davis, 1955) presented the ability to deploy the fingers with dexterity as a component of hand function and listed precision and fine coordination as elements for its evaluation.

Dexterity-Based Actions are those actions whose effects are determined by how the player physically performs them. The effects of the actions do not have to be directly connected to what the player is manipulating for actions to be dexterous: billiards and computer games are examples of how games can be manipulated through indirect control. Example: Most sports require skilful Dexterity-Based Actions as part of Game Mastery, and this is often used to define what a sport is.

Grooved Pegboard Test: The Grooved Pegboard is a manipulative dexterity test consisting of 25 holes with randomly positioned slots. Pegs with a key along one side must be rotated to match the hole before they can be inserted, requiring more complex visual-motor coordination than most pegboard tests. This test utilized the Grooved Pegboard (Figure 1) and required subjects to place metal pegs into 25 holes on a board as quickly as possible using the right hand.

Figure 1. Grooved peg board

The holes resembled keyholes arranged in a 5 x 5 matrix with varying orientation across the board. The pegs resembled keys with a raised ridge and only through manipulation of a peg's orientation could it be successfully inserted into the hole. Subjects were instructed to fill the board one row at a time, from left to right and top to bottom. This test was performed three times and the time required to complete each trial was recorded. The average time to complete all three trials was used to quantify manual dexterity.

Hand steadiness

Steadiness is the ability to maintain the body or a part of body in the fixed position or the ability to perform a smooth movement without any deviation from the desired course. Steadiness is adversely affected by muscle tension normally decreases as strength of contraction increases. It is important component of skill requiring control, steady movement such as shooting, pistol, archery and dart throwing. Different activities place different degrees of demand on an individual muscular capacity and it is well documented that people who have undergone specific trainings for several years develop substantial muscular strength and endurance to their field of training and hence are better performers of that task than inactive or untrained individuals. Steadiness is an important component of skills that require aiming and general immobility such as shooting, pistol, archery and dart throwing. Arm-Hand Steadiness is the ability to hold one's arm and hand in a specific position for a relatively short period. This is a psychomotor phenomenon. It depends upon the combination of psychological processes as well as the motor events of the body. It determines the success in sports events like archery and shooting. Being a psychomotor process, it depends upon not only the muscular calibre of an individual but also on the mental ability to concentrate on the target. Many factors determine arm-hand steadiness of an individual like the gender. (KUMAR SINGH DEOL 2014).

Factors that can influence arm-hand steadiness are an individual's physique and mental set up. Kin anthropometric parameters such as weight, height, length of upper limb etc. can also be influential. Another factor that influences arm-hand steadiness is age. As with aging process, there is decline in nearly all the systems of the body and hence the performance in such a task will be affected by the age of an individual..

Different activities place different degrees of demand on an individual muscular capacity and it is well documented that people who have undergone specific trainings for several years develop substantial muscular strength and endurance pertaining to their field of training and hence are better performers of that task than inactive or untrained individuals. For differences in human performance capabilities to be of more than passing interest, it is desirable that they are reliably replicable and generalized beyond the confines of an isolated, narrowly defined laboratory setting. Steadiness is an important component of skills that require aiming and general immobility such as shooting, pistol marksmanship, archery, or dart throwing.

Arm-Hand Steadiness is the ability to hold one's arm and hand in a specific position for a relatively short period. This is a psychomotor phenomenon. It depends upon the combination of psychological processes as well as the motor events of the body. It determines the success in sports events like archery and shooting. Being a psychomotor process, it depends upon not only the muscular calibre of an individual but also on the mental ability to concentrate on the target.

Hole Type Steadiness Test: Hole Type Steadiness Tester has been designed to measure one aspect of the psychomotor phenomena of steadiness. Nine holes, gradually diminishing in size, are used. The subject's task is to hold the stylus in the hole without touching the side. Analyses can then be made of the subject's total score for all nine holes or separate analyses can be made for each of the holes. Considerable individual differences among subjects will be found. The effects on steadiness of such variables as exercise, handedness, smoking, or alcoholic ingestion just before being tested can be studied. Following a series of trials, the performance curves can also be analyzed for practice effects and fatigue.

Hole Diameters:

- 1.156 inches
- 1.125 inches
- 0.5 inches
- 0.312 inches
- 0.187 inches

- 0.109 inches
- 0.093 inches
- 0.078 inches

Stylus Diameter:

0.0625 inches

The Steadiness Tester (Figure 2) and Stylus is connected to a timer, counter, or other data collection device. This device examines the steadiness of the hand and the fingers. There is a box, on one side of which there are some holes arranged systematically so that they proceed from the widest to the smallest. The subject takes an instrument called the stylus into his hand and inserts it completely and draws it out of these holes successively and Impulse counter available.

The subject is instructed to hold the stylus in each hole without touching the sides for a given interval of time; e.g. 10-15 seconds. The data may be recorded in terms of the number of times the subject touches the side of the hole or the total amount of time the subject is in contact with the side of the hole or both.

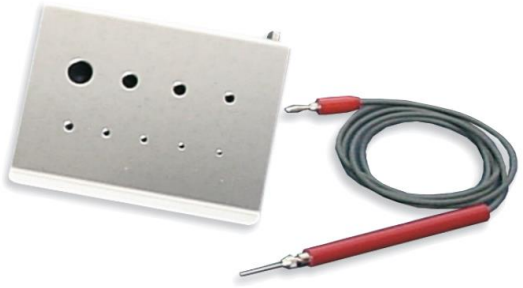

Figure 2.

Usefulness in sports

Hand dexterity and steadiness are psychomotor abilities most essential for sportspersons. Some of the sporting events where dexterity and steadiness are utmost essential is given in table 1.

Sl. No.	Name of the game	Skills
1	Handball	Grip
2	Volleyball	Tip; and set
3	Cricket	Bowling- during spin and swinging the ball
4	Basketball	Shooting
5	Archery	Grip the string; Draw the bow; Release
6	Shotput	Grip
7	Shooting	Triggering
8	Discus throw	Grip; Release
9	Softball	Pitching
10	Badminton	Gripping the racket

Jasbir Singh (2011) conducted a study on "Comparative study of depth perception and Steadiness among archers at difficult distances". The comparison were made between 30m and 50m, 30m and 70m, 30m and 90m, 50m and 70m, 50m and 90m, 70m and 90m. Archers.

Mark W. et. al. (2005) the connection between perception and action has classically been studied in one direction only: the effect of perception on subsequent action. Although our action can modify our recently become clear that even without this external feedback the

perception and execution of a variety motor actions can have an effect on three-dimensional perceptual processes. Allowing observer to act can drastically change the way they perceive the third dimension, as well as how scientist view depth perception.

Conclusion

Specific testing and training should become the part of sports training in order to gain higher performance in certain sporting events.

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CONCEPT OF VISUAL TRAINING IN SPORTS

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Abstract : Sports coaches, athletes and sports scientists are constantly pursuing modern training methods to improve sports performance and gain competitive advantage. Those with excellent vision facilities often show greater abilities and confidence within their sport. Sports Vision Training helps separate a high performing athlete from the rest by increasing several visual skills like visual processing, depth perception, and reaction speed. Sports visual training is a personalized form of vision therapy aimed at developing specific visual skills in athletes. Sports vision training is a personalized form of vision therapy aimed at developing specific visual skills in athletes. Sports vision training helps optimize the brain's ability to react to visual signals to improve many factors. There are simple as well as sophisticated tools to conduct visual training. Sports Vision Training for Volleyball, Hockey and football Players are discussed in this paper. Sports vision training can benefit both young and adult athletes of all ages and levels of play who want to take their performance to the next level. Various techniques for Evaluating Sports Vision are mentioned in the paper. Sports visual training is a new and upcoming concept in the Indian context. The sportspersons in India, irrespective of level of performance, need to obtain visual training to gain added advantage over their sporting rivals. Although they are trained physically and psychologically, the novice concept of sports visual training may enhance their performance drastically.

Keywords: visual training, visual acuity, sports performance, vision therapy, visual skills.

INTRODUCTION

Sports vision training is an area of sport science dedicated to improving athletic performance by ensuring that the brain and body efficiently process the information obtained through the eyes. Sports coaches, athletes and sports scientists are constantly pursuing modern training methods to improve sports performance and gain competitive advantage. Visual training is extremely important for the coach to understand the function of vision during sports performance and skills practice. Athletes are turning to Sports Vision Training to gain a competitive edge over the competition. With Sports Vision Training, an athlete can develop into an exceptional player by improving the essential visual skills needed to make split-second decisions in their sport. Those with excellent vision facilities often show greater abilities and confidence within their sport. No matter the sport, an athlete's core skills come down to how quickly and accurately they react to a play in real-time. Making the right decision in a fraction of a second is what sets pro athletes apart. In sports, nearly 80% of perceptual input is visual. Just because an athlete has 20/20 eyesight does not mean the athlete is performing to the highest of their ability. Although they may be able to see clearly, this does not mean they can determine where an object is in space, how fast the object is traveling or if the object is changing direction. However, Sports Vision Training helps separate a high performing athlete from the rest by increasing several visual skills like visual processing, depth perception, and reaction speed, just to name a few.

The good news is that any athlete, regardless of level of play, can improve visual athletic visual performance with sports vision training. Athletes around the world, whether they're into

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soccer, hockey, baseball, basketball, golf, skiing, or many of other sports, are turning to sports vision training to gain an edge over the competition. Sports vision training is a good fit for any athlete who wants to take performance to the next level. Skill improvement is achieved through a series of specific vision activities utilizing specialized equipment and under the guidance of a professional vision training coach.

This allows the athlete to maximize his or her ability to accurately, quickly, precisely and consistently interpret what they see during competition The visual abilities evaluated during the Athlete Vision Assessment are analysed and, in conjunction with the elite and professional athlete performance comparison, are used to develop the Athlete Vision Profile.

Concept of visual training

Sports vision helps the sportsman to determine how well their eyes perform and what should be done to improve their performance. Sports visual training is a personalized form of vision therapy aimed at developing specific visual skills in athletes. It is a type of training that focuses on increasing the athlete's visual ability in their sport.

The working of Sports Vision Training

Sports vision training is a personalized form of vision therapy aimed at developing specific visual skills in athletes. The exercises in a sports vision program train the brain to effectively interact with the eyes and improve visual functioning. There are multiple visual functioning tests an athlete might undergo in a sports vision training program. These vision tests vary and depend on the athlete's specific needs.

The sports vision training program assigned daily exercises, and can range from several weeks to several months. It involves close monitoring and follow-up appointments to ensure steady improvements in the patient's visual functions. motivation and consistency are the keys to getting the maximum benefit.

Sports vision training helps optimize the brain's ability to react to visual signals to improve:

- Balance – the ability to stay upright or in control of body movement.
- Contrast Sensitivity – the ability to distinguish between an object and its background, like a white ball against the sky.
- Depth Perception – the ability to quickly and accurately judge the distance and speed of objects.
- Dynamic Visual Acuity – the ability to clearly see objects in motion.
- Eye Tracking – the ability to "keep your eye on the ball."
- Focusing – the ability to rapidly change focus from one object to another quickly and efficiently.
- Hand-Eye or Body-Eye Coordination – the ability to use your eyes to direct the movements of your hands and body.
- Peripheral Awareness – the ability to see things out of the corner of your eye.
- Reaction Time – how quickly a person perceives an anticipated visual event and how quickly they can react to that stimulus.

Evaluating and strengthening each of the visual skills listed above can help increase your chances of playing sport like a pro.

Tools used in vision training

There are simple as well as sophisticated tools to conduct visual training. Some of them are given as follows: Stroble light, Senaptec strobe eyewear, Vision up strobe glasses, less luminous place, LED DJ lights, Online-eye-training, Stroboscopic glasses, Reaction ball and many more.

Sports Vision Training for Volleyball Players

Playing volleyball requires top-notch vision skills, along with excellent physical skills. Volleyball players who want to boost their ability to judge distances and improve their peripheral vision and hand-eye coordination can benefit from sports vision training. In volleyball, players are continuously "reading" with their eyes the ever-changing positions of the ball, their teammates, and opposing players, and keeping track of stationary objects like the side line, end line, and net. Players track the ball to gauge its velocity, its height and distance, and it's spinning action to formulate a response. The visual system directs the motor system, so improved visual skills lead to improved performance on the court.

Sports Vision Training for Hockey Players

Hockey is one of the fastest sports in the world and therefore requires excellent visual skills. Successful hockey players start vision training at a young age and constantly sharpen their visual skills to meet the challenges of this intense game. Hockey is one of the fastest sports in the world. At the professional level, the puck reaches speeds of 100 miles/h. Players need to visually track this small black disk in motion, while keeping tabs on 11 other players in motion. Keeping visual track of opponents and teammates, anticipating actions, and making or blocking the shot all require sophisticated neuro-visual processing which can be improved through sports vision training.

Sports Vision Training for Football Players

It takes way more than strength and speed to play at the top. The skills required by an elite football player all depend on vision skills which can be perfected. This requires amazing peripheral vision and awareness of all players, where they are, and their direction and speed. Most importantly, he has to accurately interpret all that visual information and rapidly make a decision.

Sports Vision Training to Improve playing ability for different individuals

Having 20/20 vision means you have excellent eyesight, which is an advantage while playing sports. But enjoying great visual acuity doesn't equate with strong visual skills. Being able to track a ball's trajectory, gauging the distance to the net, or reacting within a split second of an opponent's move requires vision skills that are in top form. Sports vision training can benefit both young and adult athletes of all ages and levels of play who want to take their performance to the next level.

Evaluating Sports Vision

An ophthalmologist will perform a variety of specialized tests to precisely evaluate visual skills before, during, and after treatment. These include tests that check for visual acuity, contrast sensitivity, eye tracking and depth perception, among others.

Conclusion

Sports visual training is a new and upcoming concept in the Indian context. The sportspersons in India, irrespective of level of performance, need to obtain visual training to gain added advantage over their sporting rivals. Although they are trained physically and psychologically, the novice concept of sports visual training may enhance their performance drastically.

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CHALLENGES OF FEMALE ACADEMIC PROFESSIONALSIN HIGHER EDUCATION

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Abstract: Knowledge of a women results with the experience that she gains from the environment and the supporting world around her, which allow her to live as knowledgeable productive members of the society. Higher Education for women is the most powerful means to evolve through or beyond current economical and social crisis in India and to teach her children the art of thinking and analysis before entering the school of Education. In this regard the present paper throws light on the status of Female Academic Professionals in Higher Educational field today.

INTRODUCTION

Higher Education is the gateway to social and economic security and opportunity Particularly for women in India. Women are part of socio-economic system and they up hold rich cultural and traditional values. Their progress is equated with the progress of the nation. From recent years many women play a major role in knowledge societies as leaders, accelerating speed to support economical growth and improved quality of life such as Equity, Quality, Relevance and Access. But still the way is not as easy as we think for women to achieve success in the field of Higher Education. In this background the present paper attempts to find out the issues and challenges facing by Female Academic Professionals in Higher Education.

According to the WEBESTER'S ENGLIGH DICTIONARY "The education beyond the secondary level; especially education provided by a college or University is called as Higher Education."

OBJECTIVES

- To know the present status of Female Academic Professionals in Higher Education system.
- To highlight the Challenges faced by Female Academic Professionals in Higher Education Field.
- To examine variations in enrollment in higher education across gender and social groups.
- To discuss the opportunities for Female Academic Professionals through New Higher Education trends.

METHODOLOGY

The present paper is a macro level and descriptive study in nature. Based on secondary data specifically the secondary sources include annual reports of UGC, Planning commission, Education, department of Ministry of Human Resource Development, Economic survey and other journals, books and websites. As these secondary sources have obvious limitations of sampling and dimensional studies the present study could only be a macro analysis of higher education system as a whole.

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IMPORTANCE OF THE STUDY

Higher Education has in the past demonstrated its crucial role in introducing change and progress in society and is today considered a key agent in educating new generations to build the future. But it does not exempt it from becoming the object of an internal reformation. Even today we are facing many problems and challenges with our Higher Education system including women representation, gender disparitis and so on. In this regard some of the basic issues and challenges facing by Female Academic Professionals in the field of Higher Education is discussed in this paper.

HIGHER EDUCATION "A BOON TO WOMEN".

Einstein once said that "no problem can be solved from the same level of consciousness that created it current needs suggest that we must learn to view the world and therefore, education in a new way."

Higher Education today is considered a key agent of education new generations to build the future, but this does not exempt from becoming the object of an internal reformation.

Higher Education leads women to "Complete living" with-

- Self confidence
- Full filling necessity of life
- Family welfare
- Important in social and political activities
- Complete living which includes- ethical value,
- Spiritual value, social value and intellectual value.

Higher Education helps women to be emotionally and mentally stronger and to face challenges and to overcome obstacles in life and to be complete women.

The number of women enrolling for Higher Education in India has gone up by 45% to 47.6% However the report added: "share of female students is lowest in institutions of national importance followed by different Universities. GER for male population is 26.3 and for females it is 25.4 the survey further said the total numbers of teachers in Higher Education is 12,84,755 of which above 58% are male and 42% are female teachers, at all-India level there are 72 female teachers per 100 male teachers.

One of the most powerful pieces of information above the topic of women in Higher Education is the Higher Education spotlight titled "Pipelines, Pathways and Institutional Leader ship: An Update of the status of women in Higher Education" published by the American Council on Education reveals about different issues and Challenges Despite many women hold advanced degrees women account for only 31 % of full professors at post secondary institutions. This is especially noticeable in the case of women color, this phenomenon known as "the higher, the fewer." Although women hold more degrees, and more prestigious degrees than men there is a significant discrepancy in the number of women.

THE NUMBER OF WOMEN HOLDING PRESIDENTIAL ROLES

While women are democratically under-represented in professor positions, many people assume they are more likely to hold presidential roles at post-secondary institutions while the number of women is regularly roles has increased since 1986, women today still only hold 27% of all presidential roles in Higher Education Institutions.

MEN AND WOMEN ACCADEMIC PROFESSIONALS PAY IN HIGHER EDUCATION

Between 2013 and 2014 male Professors earned on average yearly salary of $82,528 while women professors earned only $70,335 representing a discrepancy of 15,173 each year. The issue of pay is a vast and far reaching one in Higher Education: regardless of the position they hold, men are more likely to be on the tenure. Track and make more money than their female counter parts.

OBSTAGLES FOR WOMEN OF COLOR FACE. IN THE HIGER EDUCATION FIELD

1. Challenge with tenure and promotion.
2. Work- family responsibilities and struggles.
3. Challenges with polices and other support mechanisms.
4. Time needed to progress through the pipeline.
5. Mentoring relationships and programmes.

CAUSES FOR THE GAP

Even though the GER is higher in women than men in Higher Education field, the question here is that what are the causes for the ratio differences between men and women faculties, the tenure track, the pay criteria. According to the research and survey reports –

- Cultural Beliefs about Gender Roles - Every ethnic role, culture and society has gender-based role expectations. They can also be changed in the same society by various times. In the patriarchal social system women are expected to lead their roles as good wife, mother or a good homemaker and expected to be simple, soft and polite. Even though there is a belief that women are mother hearted and more suitable for teaching profession, they are restricted to be continued as teachers only but not to occupy administrative post in higher educational sectors.
- Gender Stereotypes – is the practice of ascribing an individual women or man specific attributes, characteristics or roles by reasons only of her or his membership in the social group of women or men.Including Higher Learning in the field of education it is quick to assume that teachers are women and expected to be accommodating and emotional. While male teachers are expected to be self-confident and strong. These unfair assumptions and expectation cause unequal and wrong personality traits which can be affected an achievement of female academicians in the field of higher education.
- Lack of Family Support – is also one of the pulling factors for female academicians in the field of higher learning. Various social cultural and biological factors are inter-related and cause lack of family support towards profession. They are – biological circumstances like pregnancy and giving birth to child, lack of proper transportation towards rural area and interior work place, lack proper physical facilities like toilets and separate staff rooms for female teachers and development of immorality – are the causing factors of lack of family support for women to serve in rural areas as well as distance areas which may results in scarcity of female academic professional in higher education field.
- In the background of Gender Bias, Non-Co-operation of other Colleagues and Administrative Sector are also major causes for lack of enthusiasm and interest towards academic achievements among female academic professional of higher learning sectors.
- Interaction of different identities matter commonly used Models of Socialization.
- Relationships matter to the career satisfaction institutions fit for women faculty. Current reward structure promotes or affirm women faculty in research universities.
- Women faculty were often isolated based on their marginalized identities; those who thrived sought out making meaningful connections with co-researchers, students, faculties and administrators. This will end up paying dividends in the tenure evaluation process.
- Women faculty often utilized multiple external resources of support such as peer, family and friends rather than institutional supports which are deans, chairs and tenured faculty.

So, it is clear that while women out numbers men in GER in Higher Education field, men out number women on governing boards across higher education by rank. The number of women in governing bodies is stalled at roughly 30% where its been sitting for twenty years.

In this regard there is a need to bring equality in the field of higher education today.

SUGGESTIONS

- Concerned education councils must be ensured that half of the leadership positions of HEI'S are held by women by 2030.
- Additional studies and researches should be launched through education commissions to report and update data about women in academic professions frequently.
- Until then HEI'S must conduct regular gender audits and reviews on their commitment to diversity and include women in the pool of candidates for hiring consideration.
- This issue can be analyzed in multidimensional perspective, ie., feminist perspective.

CONCLUSION

The above steps may looksimply, but they can go a long way towards lessoning the dramatic gender gap in institution of Higher learning. Last but not least; it is not to be neglected that to construct an equalitarian society specially in country like India there is a need of support by the family members, friends, colleagues, peers and also concerned administrative sector in the achievements of women.

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EFFICACY OF EMOTIONAL ADVERTISEMENT ON CONSUMER PERCEPTION: AN EMPIRICAL STUDY ON ENTREPRENEURIAL UNDERTAKINGS

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Abstract : Advertisements generally tend to be successful based on the receiving end, i.e, the customers' perspective. Especially, in a country like India, emotions are valued much deeper and higher than compared in foreign countries. This may be due to the culture and traditions that have been followed since the ancestral times. These emotions are definitely an important factor to analyze the consumer perception of the advertisements and understanding how effective they are. It's important to exemplify emotion-filled advertisements on the consumer perception rather than criticising advertisements on consumers' emotions. With this objective, the current study aimed to annotate the emotions involved in the advertisements given by entrepreneurs and to what extent these emotion-filled advertisements impact the consumers' perception. It also tried to journalize the after-effects of emotional advertisements on entrepreneurial undertakings. The study used an empirical approach to collect primary data from entrepreneurs and analyse the same using two factor ANOVA along with the Chi-square test for independence to rectify the same impact on the demographic profile of the respondents. After rigorous analysis, the study found that emotional advertisements have become a part and parcel of any entrepreneurial undertaking and also stated that emotion-filled advertisements can definitely affect the progression of the business and influence the consumers' perception. The study also suggested a number of ways to further bring progression in entrepreneurial activities.

Keywords: Emotions, Consumer, Perception, Entrepreneurship

INTRODUCTION:

Marketing refers to activities a company undertakes to promote the buying or selling of a product or service. Marketing includes advertising, selling, and delivering products to consumers or other businesses. Advertising is considered one of the important key ingredients of marketing because it plays an important role in the success of any organisation. At the time of designing the advertising, the thought of emotional advertising is important. Since emotional advertising efforts primarily use emotion to make the audience notice, remember, share, and buy. Emotional marketing typically taps into a singular emotion, like happiness, sadness, anger, or fear, to elicit a consumer response. The deliberation of emotional aspects while designing the advertisement is limited to some particular companies like insurance, confectionery, luxuries products, etc. entrepreneurship is not an exception to these emotional advertisements. Entrepreneurship refers to an innovative business activity started and managed and which involves a relatively higher risk than the normal one.

Studies have shown that it takes less than three seconds to react to gut feelings. Probably it is difficult to bend an iron rod for a normal person when he is emotionless. But, when he is angry or in fear, he might bend the same rod easily without his knowledge. This is the power of 'Emotions'. When these emotions are used as content in marketing, definitely there would be a certain amount of reaction from the consumers or the viewers.

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Entrepreneurs generally use small-scale advertisement tactics. They spend less and trust their innovative ideas to advertise better than using various expensive tools of advertising. But, these days they use these emotion-filled advertisements to attract customers. Say, for example, an entrepreneur who set up a small unisex salon may attract customers through the emotion of excitement to look beautiful and young. Similarly, good ambience based cafes may attract customers with the emotion of peacefulness if they visit their cafe. These may not be intentional. Emotions may be a part of their content in marketing without their knowledge. What if these emotions are imbibed purposefully in their contents for marketing? And it is essential to understand to what extent the customers/ consumers would respond to these emotional advertisements.

LITERATURE OF REVIEW:

Several research papers were identified relating to emotional advertisement. But, there was a gap in research with regard to the effectiveness of emotional advertisement on consumer perception with special references to entrepreneurship undertakings. Yet, the following reviews were made in this regard:

1. **Hongxia Zhang Jin Sun Fang Liu John Gordon Knight (2014)** in their study aimed to examine the use of emotional and rational advertising appeal regarding service options that differ in terms of their experience and credence properties and explore the moderating role of individual differences in affect intensity on the consumers' varying reliance on rational vs emotional appeals. The results of this analytical and exploratory study provided support that an emotional advertising appeal led to a higher purchase intention in the experience service condition, while a rational message generated higher purchase intention in the credence service condition. and also this paper showed the moderating role of individual differences in affect intensity. High affect intensity individuals reported higher levels of brand favorability than did their low affect intensity counterparts when exposed to ads using emotional appeal. Conversely, subjects showed no significant differences in the intensity of their emotional responses when exposed to rational appeals.
2. **F. Javier Otamendi and Dolores Lucia Sutil Martín (2020)** in their study aimed to shed new light on the quantification of the emotional effectiveness of advertising among different groups supported the measurement and joint specification of emotions and emotional involvement using the analysis of facial expressions provided by AFFDEX and its 10 indicators. the general descriptive analysis implied that the positive emotions were present now and then, whereas the negative ones were almost never shown. Emotions of course are an honest predictor of ad liking, which is the key measure of the emotional effects of the advertisement. The combinations of positive and negative emotions that are found in each of the groups clearly defined the groups, relating them to their stage in life. In a conclusion, marketing professionals, therefore, have the tools to live the emotional effectiveness of advertising before and through campaigns.
3. **Majeed, S., Lu, C., & Usman, M (2017)** in their paper aimed to better conceptualize how women emotionally respond to emotional advertisements (EAs). The variant views were integrated into an ACE model, composed of subordinate levels of emotions (E), celebrity endorsements (C), and appeal drivers (A) It was an empirical study. They used 240 Chinese women as respondents. The study found that emotions of happiness with music and colour influenced the consumption behaviour of women.

OBJECTIVES:

1. To understand the emotional advertising techniques used by macro entrepreneurs
2. To infer the consumer perception of emotional advertising techniques of macro entrepreneurs
3. To appraise the efficacy of emotional advertisements for micro and small entrepreneurs on consumer perception
4. To devise suitable measures to improve the content of advertisements through emotions

METHODOLOGY:

This research follows a Descriptive and Empirical Research Design. It uses both primary and secondary data. Primary data is collected from respondents using structured questionnaires. The quota and convenience Sampling techniques are used to collect primary data from the respondents. This study collected responses from 80 consumers of various entreneurships in Tumkur Urban District who belonged to different age groups. The dependent variable used in the study was consumer perception and emotional advertisement was an independent variable. The efficacy of emotional advertisements on consumer perception was measured using a Likert type scale. Further, the collected data are analysed using Chi-square and two factor ANOVA.

HYPOTHESES:

$H_0$1: There is no association between the age of respondents and their perception of emotional advertisements

$H_0$2: There is no impact of emotions on consumer perception of the advertisements

ANALYSIS:

Based on the results of the questionnaires a complete summary of data analysis is as below:

Table 1: Table showing the number of respondents towards their preference towards the importance of emotions in advertisements based on their age (Observed Values - O_I)

Rate your overall preference towards the importance of valuing emotions in advertisements	Positive Preference	Negative Preference
25 years and below	8	12
26 years - 35 years	13	10
36 years - 45 years	16	7
46 years and above	13	1

Source: Derived from Questionnaire

Table 2: Table showing Expected Values for the observed values (E_I)

Rate your overall preference towards the importance of valuing emotions in advertisements	Positive Preference	Negative Preference
25 years and below	12.5	7.5
26 years - 35 years	14.38	8.63
36 years - 45 years	14.38	8.63
46 years and above	8.75	5.25

Source: Researcher's Calculation based on Observed Values

$$x^2 = \frac{(\text{Observed Values} - \text{Expected Values})2}{\text{Expected Values}}$$

$$x^2 = 10.67$$

df = 3, P-value = 7.81

Since x^2 > p-value, the null hypothesis is rejected and the alternative can be accepted. Hence, there is an association between the age of respondents and their perception of emotional advertisements.

Table 3: Table showing a summary of 80 responses towards their preference in various

emotions

Rate the following emotions based on your preference in advertisements that you wish to see	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Love	29	24	3	18	6
Joy	33	21	1	11	14
Wonder	28	26	9	8	9
Peace	35	28	8	7	2
Courage	25	37	7	6	5

Source: Derived from Questionnaire

Table 4: Table showing ANOVA: Two-Factor Without Replication

SUMMARY	Count	Sum	Average	Variance
Love	5	80	16	126.5
Joy	5	80	16	142
Wonder	5	80	16	101.5
Peace	5	80	16	211.5
Courage	5	80	16	206
Strongly Agree	5	150	30	16
Agree	5	136	27.2	36.7
Neutral	5	28	5.6	11.8
Disagree	5	50	10	23.5
Strongly Disagree	5	36	7.2	20.7

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	0		40	0	1	3.006917
Columns	2715.2	4	678.8	24.97884	1.04E-06	3.006917
Error	434.8	16	27.175			
Total	3150	24				

Source: Researcher's Calculation based on the responses

Since F_{crit} > P-Value (3.007 > 1.04), the null hypothesis is rejected and the alternative one can be accepted. Hence, it can be stated that emotions impact the consumer perception of the advertisements.

FINDINGS:

With a thorough analysis, the following findings were drawn:

1. Entrepreneurs have been using emotions in their advertisements but not intentionally.
2. Micro and small entrepreneurs have been using minor advertisement tactics where emotions played a prominent role even without the entrepreneurs' knowledge.
3. Consumers' perception has played a significant factor to influence entrepreneurs to enhance their advertising strategies to a greater extent even at the micro-level.
4. Through observations, emotions have been used in advertisements intentionally only by macro-level entrepreneurs.
5. Usage of emotions in advertisements has a direct association with the consumers' age. Hence, middle and elder age group consumers have been keen on showing a positive response towards the importance of peace, wonder and joy emotions in advertisements whereas youngsters have shown a positive response towards

wonder and courage emotions in advertisements given by micro and small entrepreneurs.

6. Love, Joy, Wonder, Peace and Courage all being positive emotions can definitely impact the consumers' perception of the advertisements if given intentionally by micro and small entrepreneurs.

SUGGESTIONS:

1. The sustainability of entrepreneurs depends upon several external factors, among them, advertising and promotional tools are prominent. Therefore, micro and small entrepreneurs can focus more on advertisement tactics even at the macro level provided sufficient resources are available.
2. It is the need of the hour for entrepreneurs to understand the weightage of various emotions given by consumers for which entrepreneurs need to conduct surveys before planning and preparing the content of advertisements.
3. When unintentional emotion-filled advertisements can impact consumer perception significantly, intentional and planned emotional advertisements can further affect the entrepreneurs and the success of their business vastly. Hence, even micro and small entrepreneurs can stress on implementing emotional advertisements to seek progression in their entrepreneurship.

CONCLUSION:

Small businesses often tend to have fewer budgets for advertisements, but the positive effects are worth it. Emotional advertisements are not circumscribed only to big businesses. It is way too common in every advertisement these days. Through the study, though it was on a clear note that micro and small entrepreneurs don't spend much on advertisements, their success is in the limelight through micro-level advertisements only. Consumers are mainly attracted to advertisements if they get connected to them emotionally. At least at this point if entrepreneurs seek help and make a place for valuing the emotions of consumers through their advertisements, the success will be seen in their close point.

SCOPE FOR FURTHER RESEARCH:

A post emotional advertisement implementation study can be made considering a rich amount of data. It would be interesting to explore the other advertising tactics used by entrepreneurs at present. Further, other interesting issues like 'will entrepreneurs be dynamic enough to adopt effective marketing strategies even during a crisis like pandemic' will be useful to explore the possibilities of new segments of marketing strategies and their impacts on the business and consumers. Similar studies can be done in future to study the actual change in emotional advertising. Different countries, states or areas are required to obtain an insight into entrepreneurship and understand if the consumers affect differently in these different areas.

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AN CONCEPTUAL EVALUATION OF BENEFITS OF PRANAYAMA AND ITS IMPACT ON PHYSICAL FITNESS

KUMARASWAMY.K.C♣

INTRODUCTION

Pranayama:

Prana is the basic fabric of whole creation and it is the hard core of all creations. Prana means breathe and ayama means control expansion. Pranayama means a systematic and rhythemic breathing. Prana is just as like as dear child to a responsible father. Pranayama is the science of breathe to gain control over prana and in mind. Pranayama as characterized by yoga sutra and patanjali is the investigation of purifying, adjusting and picking up control over the prana in the human framework. For the most part pranayama is characterized as control of relax. The word pranayama is a blend of two words i.e., prana implies an imperative life force and ayama means control or systematic and rythmetic regulation. Prana is the life force which exists in all the living beings and it is directly referred to the air which we breathe in Ayama is characterized as augmentation or development. In this way the word pranayama implies augmentation or development of the measurement of prana. The strategies of pranayama give the technique whereby the life compel can be actuated and managed with a specific and goal to go past one's typical limits or confinements and achieve a higher condition of vibratory vitality.

Physical exercises:

The Sanskrit word vyayama implies physical work out. Physical practice is the workout to reinforce out bodies remotely and inside and is an absolute necessity for everyone no matter what stage of life. Exercise directly influences the health for the better. It is not a new subject but an ancient tradition to lead holistic life, discussed in our scriptures. Today's exercises too are new forms of the vyayama. WHO characterizes wellbeing as a condition of finish physical, mental, social and other worldly prosperity and not simply the non attendance of infection or ailment? According to Swami Vivekananda strength both physical and metnal is required for success of everything. Strength is life, weakness is death, are his famous words. Strength is felicity (happiness producer), life eternal and immortal but weakness is constant strain, misery and death. Physical exercise (vyayama) is the wonderful tool to keep the body healthy, because it is the vehicle which takes us towards our final goal.

Psychology:

Psychology of sport is a branch of psychology that examines various aspects of sports activities and physical culture. It also studies the psychological aspects of the athlete's personality. It develops diagnostic techniques for selecting persons of specific sporting events and effective training methods. Sports psychology examines the athlete's psychic states in various complex situations. Sports psychology is also designed to develop the psychological foundations of sporting skills by teaching optimal locomotor habits and proper control of one's body and by fostering the athlete's will power and all round development.

Physiological:

Pranayama havewide physiological values. While performing pranayama with proper. PurakaRechaka and Kumbhaka. The abdominal muscles are being compressed and relaxed due to proper abdominal contraction and relaxation. Our digestive power enhances and the spinal column lower portion is pulled up. To pull up the upper position of the spinal column we use

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different pranayama techniques. This pulling up of whole vertebral column activates and stimulates the nerves of the body i.e., activate the nervous system.

REVIEW OF LITERATURE

The main aim of the study was to investigate the effect of Pranayama and Physical exercises on selected physical, psycho physiological variables among college students. After outlying the problem the next step is to examine the literature to identify property the extent of the problem, to develop an understanding of various techniques available for such a study and to develop ideas that contribute to the overall rational and interpretation of results.

Venkatesan and Yuvaraj (2011) investigated to find out the impact of Asana and Pranayama training on selected physiological variables among intellectually challenged person in Chennai. Methodology. The investigator randomly selected 45 intellectually disabled children from love care special school in Chennai. The subjects were classified into 3 groups. Treatment group 1 consisting of 15 subjects under gone the asana training. Experimental group 11 consisting of 15 subjects undergone the pranayama and then experimental group 111 consisting of 15 subjects act as a control group. Statistical techniques. The researcher used (ANCOVA) statistical technique for this study.

Praveenakumar, Bujurke and Rathod (2011) studied on the impact of y ogic pranayama and meditation on chose physical and physiological variables 30 boys of the age 12 to 15 years were taken from Karnataka university department of yoga, Dharwad. The subjects were put into 2 groups of 15 in each aggregate, control group, group 2 test gather which was given yogic paranayama and meditation for about 12 weeks, both morning and evening on elective days in a week. The information gathered was analyzed statistically by ANACOVA.

Jothi (2011) studied on physical education and sports sciences impact of yogasana and oxygen consuming exercises on particular physiological variables of pregnant women and their fetus. The purpose of the study was the impact of selected asana and gentle vigorous activities on paradigm physiological factors at prior to immediately after exercises of pregnant women and their fetus from 28th to 36th weeks of gestational age. 30 pregnant women were taught asana and aerobic exercise for three weeks. A pilot study was conducted to ensure an optimum training programme. On the day of experiment pregnant womens fetal heart rate, maternal heart rate and oxygen saturation were obtained which was followed by asana and aerobic exercises. Immediately after the exercise the subjects response to the exercise on selected physiological variables were obtained.

METHODOLOGY - STATEMENT OF PROBLEM:

The purpose of study is entitled "Benefits of Pranayama, Physical Exercise and Psycho-Physiological Components on the performance of sports persons"

OBJECTIVES:

The following are the objectives:

- To study the benefits of Pranayama, Physical Exercise and Psycho-Physiological components on the performance of sports persons.
- To access the influence of physical fitness and psycho-physiological.
- To assist the Pranayama exercises and after performing physical activities and aerobic exercise.

HYPOTHESES:

In view of the assessable written works, the accompanying speculations were encircled.

1. It was conjectured that there might be noteworthy change on chose physical variables to be specific flexibility, agility, abdominal strength and speed and reaction of college students by practicing pranayama, physical exercise and pranayama physical exercise groups.

2. It was theorized that there might be critical change on chosen psychological variables namely attention and concentration and memory of college students by practicing pranayama, physical exercise and pranayama physical exercise groups.
3. It was theorized that there might be critical change on chosen physiological variables namely vital capacity and cardio vascular endurance of college students by practicing pranayama, physical exercise and pranayama physical exercise groups.

LIMITATIONS :

The following factors were considered as limitations in the study:

1. The study is limited to the college students of Aurangabad Dist.
2. The subjects who are practicing pranayama, physical exercise and earlier days will not be taken into consideration.
3. The subjects are not involved in any other physical activities during the experimental treatment for the present study.
4. The day to day activities, rest period, food habits and life styles of the subjects may not be considered as the limitations of the study.

DELIMITATIONS:

1. The study was delimited to a total of 90 college students.
2. The study was delimited to age group of 18-22 years.
3. The study was delimited to 30 training classes six days a week.
4. The study was delimited to the following criteria variables.

Tools : Physical variables :

a) flexibility
b) agility
c) abdominal strength
d) speed and reaction

Psychological variables :

a) attention and concentration
b) memory

Physiological variables :

a. vital capacity
b. cardiovascular endurance

Conclusion of the stuy :

The study may helped to know the variations and similarities in the pranayama and physical exercises on physical variables namely flexibility, agility, abdominal strength and reaction, psychological variables attention and concentration and memory, and physiological variables vital capacity and cardiovascular endurance among college students.

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A STUDY OF EMOTIONAL MATURITY OF SPORTS PARTICIPANT AND NON-SPORTS PARTICIPANT STUDENTS OF SECONDARY SCHOOLS

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Introduction : Concept of Physical Education

The concept of physical education is generally understood as organization of some games, sports or physical education activities in schools. There are schools where specific periods are allocated for this subject in the time table. It has been noticed that during such periods, most of the students are either left on their own to play the games in a way they like or they are taken to the field where they engage themselves in different sports without the guidance or supervision of teachers. In some schools, selected students play games like football, cricket, volleyball, hockey, basketball, and so on. Annual sports are organized, but again in such activities only a few selected students participate. All these experiences taken together provide a basic understanding of the physical education as a concept. However, when we go into details of the aims, objectives and concepts of physical education, we learn that they go beyond these traditional beliefs.

Sport is an athletic activity requiring skill or physical prowess and often of a competitive nature, such as racing, cricket, tennis, golf, bowling, wrestling, boxing, hunting, fishing, etc. The term is commonly used to describe a physical activity that has a competitive element, whether played by a professional or a keen enthusiast. Physical Education is the systematic instruction in sports, exercises, and hygiene given as part of a school or college programme.

Sports Participation

The role of sport participation in the academic achievement of students has been a topic of debate for decades (Din, 2006). Critics have observed that sporting activities take time away from the classroom, sports divert talent from academic programmes and the students who put their energies into sports are less likely to pursue academic objectives (Din, 2006). They do not have time or energy to achieve excellence and satisfaction in both roles (Din, 2006).

Sports are an important part of the society and an integral feature of everyday life. Sports and Physical Education play an important role in human development. Games and other outdoor activities, properly planned and executed, promote social harmony, discipline and increased productivity. These activities develop right attitudes and values in students and help them grow into balanced, integrated and healthy citizens.

Sports are an inspirable phenomenon of our social life and are at the apex of human civilization because of the trials, competitive events and scope of improving personality. They play a very prominent role in the modern society.

Benefits of Sports Participation

Involvement in sports or regular physical activity provides both direct and indirect benefits. Some of these benefits include:

- Understanding and developing teamwork
- Sportsmanship
- Learning positive management of winning and loosing

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- Improved physical strength and endurance
- Reduced risk of cardiovascular disease
- Reduced risk of obesity
- Healthy growth of bones, muscles, ligaments and tendons
- Improved coordination and balance
- If outside, kids get some vitamins from sunshine
- Helps with self regulation of physical activity levels
- Social skills opportunity with a consistent group of peers
- Provides opportunity to develop a greater self esteem with people who share an interest and
- Sporting clubs are positive environments and provide a sense of community.

Emotions play a crucial role in contributing towards adjustment of the individual people who are emotionally mature, they can manage their feelings well and deal effectively with other people. So, an emotionally mature person can have better adjustment with himself as well as others. The road to emotional maturity involves the integration of various aspects of personality into the self.

Emotional maturity is a balance between the brain and the emotions, between the inner and outer world of the individual.It is this emotional maturity which contributes to the integration of all the aspects of man's personality and the fulfilment of his intellectual, emotional and social needs.Emotional maturity develops throughout one's life; however, it is very important that parents and teachers be aware that the emotional sphere must be nurtured in one's intelligence, and intelligence in one's emotions, from an early age.

Emotional Maturity fosters a sense of security which preferred vulnerability. A mature person can show his vulnerability by expressing love and accepting expressions of love from the one who loves him.

Sports Participation: Sports participation referred to students who took part in the school intramural competitions, inter-school competition, representing school and state in sports or games in recognized inter institutions and inter-state competitions and also winning the place, if any in such competitions (Word Net Dictionary).

Sports Persons:"A person, who takes part in sports, especially outdoors is known as sports person" Oxford Dictionary. Those subjects were considered as Sports Persons who had participated in different sports competitions from Inter School level to the National level competitions organized by Youth Services & Sports Department or Sports Council of J&K State which are recognized by School Games Federation of India/All India Council of Sports.

Non-Sports Persons: Those subjects who had not participated in Sports Competitions organized by the school.The researcher has made sincere efforts to collect the review of related literature and studies reviewed based on the impact of sports participation and emotional maturity.

Variables of the Study : In the present study involves emotional maturity, students of sports participant and non-sports participants are the variables of the study.

Sample of the Study : The present study involves to 50 samples of students who had participated in the sports competition and 25 samples of students who are not participated in the sports competition.

Objectives of the Study

The present study is designed with the following objectives.

1. To study the emotional maturity of boys sports person and boys non-sports person.
2. To study the emotional maturity of girls sports person and girls non-sports person.
3. To study the emotional maturity of sports urban boys and sports urban girls students.

4. To study the emotional maturity of sports urban boys and sports rural boys students.
5. To study the emotional maturity of sports urban girls and sports rural girls students.

Hypotheses of the Study

In pursuance to the above stated objectives, the following null hypotheses were formulated.

- There is no significant difference between emotional maturity of boys sports person and boys non-sports person.
- There is no significant difference between emotional maturity of girls sports person and girls non-sports person.
- There is no significant difference between emotional maturity of sports urban boys and sports urban girls students.
- There is no significant difference between emotional maturity of sports urban boys and sports rural boys students.
- There is no significant difference between emotional maturity of sports urban girls and sports rural girls students.

Tools used for Data Collection and Statistical Techniques

Investigator has used emotional maturity questionnaire which was constructed and standardised by Yashvir Singh and Mahesh Bhargava. It consists of 48 statements of which 21 statements positively worded and 27 negatively worded. Emotional maturity questionnaire has significant reliability and validity quotients under the five factors such as emotional stability, emotional progression, social adjustment, personality integration and independence.

To compare the data, selected among sports person and non-sport persons of secondary school students Mean, SD, t-value were used to analyse the group of data.

The present study involves survey method of research is used. Before the administration of tests, the investigator personally met the sports person and non-sports person and given direction and explained the questionnaire. Investigator has collected data from the secondary school students of sports person and non-sports person with the help of experts and special trained physical education teachers. Purposive and cluster sampling techniques used for the selection of sample.

Limitations of the Study

The present study is limited to the samples of sports participant and non-sports participant students of secondary school. The present study is limited to the tool and conducted survey to only Dharwad city schools.

Data Analysis and Interpretation

Table No. 1 :Mean, Standard Deviation and t-value of Emotional Maturity Scores of the Boys Sports Person and Boys Non-Sports Person

Variable	Group	N	Mean	Standard Deviation	t-Value	Remarks
Emotional Maturity	Boys Sports Person	25	71.4800	10.05037	6.913	S
	Boys Non-Sports Person	25	56.6800	11.19792		

*Significant at 0.05 level, table value=2.00

It can be observed from the above Table, it is found that the mean of both Boys Sports Person and Boys Non-Sports Person are 71.4800 and 56.6800 respectively. When the t-test was applied to compare the mean of both the groups, it was found that the calculated t-value (6.913) is greater than the tabled value at 0.05level of significance.

This means that the mean difference is significant. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can be concluded that the Emotional Maturity

of Boys Sports Person is better than the Boys Non-Sports Person.

Table No. 2 :Mean, Standard Deviation and t-Value of Emotional Maturity Scores of the Girls Sports Person and Girls Non-Sports Person

Variable	Group	N	Mean	Standard Deviation	t- Value	Remarks
Emotional Maturity	Girls Sports Person	25	63.0000	7.70093	7.676	S
	Girls Non-Sports Person	25	51.4583	8.19321		

*Significant at 0.05 level, table value=2.00

It can be observed from the above Table, it is found that the mean of both Girls Sports Person and Girls Non-Sports Person age group of 15 years Girls are 63.0000 and 51.4589 respectively. When the t-test was applied to compare the mean of both the groups, it was found that the calculated t-value (7.676) is greater than the tabled value at 0.05 level of significance.

This means that the mean difference is significant. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can be concluded that the Emotional Maturity of Girls Sports Person is better than the Girls Non-Sports Person.

Table No. 3 :Mean, Standard Deviation and t-value of Emotional Maturity Scores of Sports Urban Boys Students and Sports Urban Girls Students Emotional Maturity

Variable	Group	N	Mean	Standard Deviation	t- Value	Remarks
Emotional Maturity	Sports Urban Boys Students	25	67.0400	8.56096	4.380	S
	Sports Urban Girls Students	25	73.9600	8.39385		

*Significant at 0.05 level, table value=2.00

It can be observed from the above Table, it is found that the mean of both Sports Urban Boys Students and Sports Urban Girls Students are 67.0400 and 73.9600 respectively. When the t-test was applied to compare the mean of both the groups, it was found that the calculated t-value (4.380) is greater than the tabled value at 0.05level of significance.

This means that the mean difference is significant. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can concluded that the Emotional Maturity Sports Urban Girls Students is better than the Sports Urban Girls Students.

Table No. 4 :Mean, Standard Deviation and t-value of Emotional Maturity Scores of Sports Urban Boys Students and Sports Rural Boys Students

Variable	Group	N	Mean	Standard Deviation	t- Value	Remarks
Emotional Maturity	Sports Urban Boys Students	25	68.9600	8.36899	7.133	S
	Sports Rural Boys Students	25	55.1600	11.56028		

*Significant at 0.05 level, table value=2.00

It can be observed from the above Table, it is found that the mean of both Sports Urban Boys Students and Sports Rural Boys Students are 68.9600 and 55.1600 respectively. When the t-test was applied to compare the mean of both the groups, it was found that the calculated t-value (7.133) is greater than the tabled value at 0.05 level of significance.

This means that the mean difference is significant. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can be concluded that the Emotional Maturity of Sports Urban Boys Students is better than the Sports Rural Boys Students.

Table No. 5 :Mean, Standard Deviation and t-value of Emotional Maturity Scores of Sports Urban Girls Students and Sports Rural Girls Students

Variable	Group	N	Mean	Standard Deviation	t- Value	Remarks
Emotional Maturity	Sports Urban Girls Students	25	67.7600	10.32505	5.127	S
	Sports Rural Girls Students	25	84.2800	17.70480		

*Significant at 0.05 level, table value=2.00

It can be observed from the above Table, it is found that the mean of both Sports Urban Girls Students and Sports Rural Girls Students are 67.7600 and 84.2800 respectively. When the t-test was applied to compare the mean of both the groups, it was found that the calculated t-value (5.127) is greater than the tabled value at 0.05 level of significance.

This means that the mean difference is significant. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. Hence, it can be concluded that the Emotional Maturity of Sports Rural Girls Students is better than the Sports Urban Girls Students.

Findings of the Study

The findings of the study are as follows.

- Emotional maturity of boys sports person is better than boys non-sports person.
- Emotional maturity of girls sports person is better than girls non-sports person.
- Emotional maturity of sports urban girls students is better than sports urban boys students.
- Emotional maturity of sports urban boys students is better than sports rural boys students.
- Emotional maturity of sports urban girls students is better sports rural girls students.

Summary, Conclusions and Educational Implications

It can be concluded that emotional maturity of boys and girls sports person as compared to non-sports participant students of girls and boys sports participant study also can be concluded that urban girls and boys is better than the sports participant rural girls and urban boys. It can be observed from the present study based on the findings of the study that emotional maturity is very important. Psychological factors and sub-factors such as emotional stability, emotional progression, social adjustment, personality integration and independence. All sub-factors of emotional maturity which are interrelated to each other and correlated to each other. Educational programmes should be planned and implemented in the classroom and outside the classroom in such a way that emotional maturity should be fostered among the students. Hence, the findings of the present study would help the administrators, teachers, educational planners and educational policy makers for providing suitable educational programmes should be implemented in the classroom. Teacher should be encouraged students should take active sports participation and in turn emotional maturity attained.

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THE ATTITUDE OF STUDENTS, PARENTS AND PARTICIPATION ON PHYSICAL EDUCATION AND SPORTS IN GOVERNMENT AND PRIVATE SCHOOLS

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Abstract : The purpose of the study was to find out "A Study on the Attitude of Students, Parents, Participation on Physical Education and Sports in Government and Private Schools" age of the subjects ranged between 14 to 17 years boys and girls. The investigator explained the purpose, nature of the study to the school authority for permitting Boys and Girl's students for the program who are studying in Government and Private Schools of Mumbai Karnataka. The detailed description of the methodology used in the present research was explained in earlier chapter. In this chapter, the statistical methodology in terms of the analysis of data, presentation of data with pragmatic findings of the study with various statistical tools which are used for numerical data were presented including summery statistics with mean and standard deviation (SD), standard error (SE), two sample independent t test, one factor and two factors analysis of variance (ANOVA) followed by Turkey's multiple post-hoc procedures and lastly, the correlation analysis using Karl Pearson's product moment correlation coefficient.

Keywords: attitude of the students and parents.

INTRODUCTION

A sport has proved its value in order to help people develop precious skills to deal with their ups and downs. They teach individuals how to communicate with others and function as a team. When working on a class project or a school, this helps in the daily life of playing with others. Sports also help people become more autonomous and feel better about themselves. The effect is good self-esteem and self-confidence that is highly important to a person's health and success. Sports form an inspiring part of physical education system. The term motor skill is synonymously used with general athletic ability. There are many factors in athletic ability which contribute to successful performance. In most advanced and developed countries, children's awareness of motor learning and skill development is highly scientific and prolonged, which may have helped them develop general fitness with motor skills such as power, speed, agility, balance, reaction time, etc.

OBJECTIVES OF THE STUDY

- The main objective of study is to assess the attitude of student stand razing in government and private schools towards physical education and sports.
- The study will help in assessing the attitude of student toward physical education and sports.

DELIMITATIONS OF STUDY

1. The study was delimited to 14 to 17 years age group of students from government and private schools.
2. The study further delimited secondary school only
3. The samples of this study are delimited to Mumbai Karnataka region only.

LIMITATIONS OF STUDY

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1. The sample of this research Stays at various regions, may have different living conditions, diets, rest and working conditions, which might serve as a limitation of the study.
2. The study further limited to know the Government and Private Schools Attitude of Students, Parents, Teachers, and Administrators in Mumbai Karnataka Region.

HYPOTHESES OF STUDY

1. It was hypothesized that there may be difference in the attitude of private school students and government school Mumbai Karnataka region.
2. It was hypothesized that there may be difference in the attitude of administrator of government and private schools Mumbai Karnataka region.

METHODOLOGY

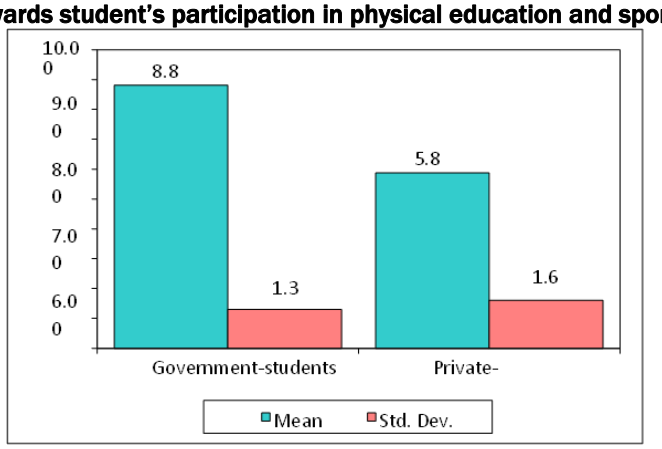
These include the selection of subjects, selection of competition experience variables. Tools used for the collection of data, criterion measure, reliability of data, collection of data, administration of test and statistical procedure used for analysing the data. The Methodology adapted for the present "A Study on the Attitude of Students, Parents, Teachers and Administrators towards Student Participation on Physical Education and Sports in Government and Private Schools" The purpose of the study was to find out "A Study on the Attitude of Students, Parents, and Participation on Physical Education and Sports in Government and Private Schools" age of the subjects ranged between 14 to 17 years boys and girls. The investigator explained the purpose, nature of the study to the school authority for permitting Boys and Girl's students for the program who are studying Government and Private Schools of Mumbai Karnataka. The different moderate variables like, managements of schools (government and private) and districts (Belagavi, Dharwad, Gadar, Haveri and Vijayapura) were compared with respect to with attitude scores of students, parents of students, teachers and administrators of schools towards students' participation in physical education and sports separately by independent t-test, 1-way analysis of variance and 1-way analysis of variance followed by Turkey's multiple post-hoc procedures.

Two sample independent t test between students of government and private school with attitude scores towards student's participation in physical education and sports

Schools	Mean	Std.Dev St. Error	St. Error	t-value	p-value
Government-students	8.81	1.30	0.15	12.3480	0.0001.5
Private-students	5.87	1.61	0.19		

From the results of the above table, it clearly shows that, the calculated value of t test is 12.3480 and the critical value of t with 148 degrees of freedom at 5% level is 1.9600. It indicates that, the calculated value i.e., 12.3480 is greater than 1.9600. It means that, a significant difference was observed between students of government and private school with attitude scores towards student's participation in physical education and sports. Thus, the null hypothesis (H0) is rejected and alternative hypothesis (H1) is accepted. It means that, the students of government schools have significant higher attitude scores towards student's participation in physical education and sports as compared to students of private schools. In another words, the students of government schools are more interested in participation of physical education and sports than their counterparts i.e., students of private schools. The mean and SD of attitude scores towards student's participation in physical education and sports is also presented in the figure given below.

Comparison between students of government and private school with mean attitude scores towards student's participation in physical education and sports



Null hypothesis: No significant difference between student parents of government and private school with attitude scores towards student's participation in physical education and sports.

Alternative hypothesis: A significant difference between student parents of government and private school with attitude scores towards student's participation in physical education and sports to test the above hull hypothesis, the independent two sample t test was performed.

CONCLUSIONS

Students in government schools have substantially higher attitudes towards the inclusion of students in physical education and sports relative to private school students. In other words, students in government schools are more involved than their peers in physical education and sports participation, i.e., Private school pupils. In contrast to student parents of private schools, the student parents of government schools have substantially higher attitude ratings towards student involvement in physical education and sports. In other words, the student parents of state schools are more involved than their peers in physical education and sports activity, i.e., Parents of private school students.

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A STUDY ON EFFECT OF YOGIC PRACTICES ON PHYSICAL FITNESS

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Abstract : The Purpose of the study was to evaluate the effect of one month yoga practice on selected physical parameters which includes cardiovascular endurance, explosive strength, flexibility, and haemoglobin. Twenty subjects were selected as subjects for the study. Yogic asana training was administered for one month. The results revealed significant effect on flexibility, explosive strength and cardiovascular endurance of yogic practice. Keywords: cardiovascular endurance, explosive strength, flexibility, yogic practice
Keywords: cardiovascular endurance, explosive strength, flexibility, yogic practice

Introduction

Yoga is a spiritual technique, a method that has something to offer to everyone, religious or the non-religious faith or crime factors find in yoga a way to healthier, happier and harmonious life. Patanjali the father of yoga states in his sutras that the harmonious development of the body, mind and soul can be obtained through the eight limbs of yoga. They are Yama, Niyama, asana, Pranayama, Pratyahar, Dharna, Dhyan, and Samadhi. Yogic asana help in the prevention and cure of many physical diseases, especially those of the digestive tract by regulating the secretion of various duct and ductless gland. Apart from all these yoga is an extremely economic practice. Fitness has been considered as essential element of everyday life. It involves basic skills like strength, speed, endurance, agility, cardiovascular endurance to remain physically fit. Doctors declare that there is a close link between physical fitness and mental alertness of that a fit person taking regular exercise is better able to face rigorous, emotional and physical stress of day to day life. Dr. Kalidasan and S. Samsudeen (1998) investigated the impact of game specific yogic training on cricket performance among college level cricketers. The analysis revealed that physical field training combined with game and specific yogic training showed significant improvement on the cricket playing ability among cricketers. Shanugam (1993) studied the effect of asanas and jogging on selected physiological and haematological variables among school boys. Asanas were found to be more effective than jogging in improving pulse rate, vital capacity, breath holding time and serum cholesterol.

Methodology

Twenty male students of Delhi University age ranging from 18-25 years were randomly selected as the subjects for the study. Yogic asana training programme was administered for one month five days a week in the morning and evening time for one hour. The data pertaining to the criterion variable were taken before administering the training program of three months in relation to the cardiovascular endurance, explosive strength, reaction time, flexibility and haemoglobin. The standard tests were applied to collect data for the above said variables. After pre-test a three month training schedule of yogic practices was administered and after the completion of training a post-test was taken on all the selected variables. The following tests were administered for data collection on selected variables:

Haward step test

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To measure Cardio Vascular Endurance. In this test exercise is given for five minutes on the box. After exercise pulse is measured for the duration of 1 to 1.5, 2 to 2.5, 3 to 3.5, the pulse of all the three time were recorded and was calculated by applying following formula;

Standing broad jump

To measure Explosive Strength of legs. The best trial was used as the final score of the test item.

Electronic Visual and Auditory Reaction Timer

To measure audio and visual reaction time. Electronic reaction time measures the reaction time reading accurate up to 0.0001 second. Out of best five trials the minimum time was recorded as score

Sit and Reach Test

To measure flexibility of legs.

Bridge-Up test

To measure the flexibility of spine

Hemoglobin test

To measure hemoglobin in blood. The data collected was analysed with the help of statistical procedure in which Arithmetic Mean, Standard Deviation, Standard Error of Mean and 't' test were used to compare the pre and post-test data.

Results

The't' test was applied to find out the significance of difference between the pre-test and post-test means of the selected variables. The level of significance was chosen to test the hypothesis was 0.05

Table 1: Cardiovascular Endurance

Subject	Mean	S.D.	S.E	't' Ratio
Pre-test	51.5	9.37	2.09	2.28*
Post-test	60.6	8.43	1.88	

*Significance at .05 level. (df-18); Tabulated't' value=2.10

The table-1 reveals that mean, standard deviation, standard error of mean with regard to pre data on cardiovascular endurance were recorded 60.60, 9.375 and 2.096 respectively where is in case of post data the same was recorded as 51.50, 8.431, and 1.885 respectively and the 't' ratio (2.285) was found significant at 0.05 level.

Table 2: Haemoglobin

Subject	Mean	S.D.	S.E	't' Ratio
Pre-test	10.82	1.48	0.33	
Post-test	1.07	1.41	0.31	0.59

Significance at .05 level. (df-18); Tabulated't' value=2.10

Table-2 indicated that mean, standard deviation and standard error of mean value with regard to pre data on haemoglobin in blood were recorded 10.825, 1.485 and 0.332 respectively where as in the case of post data the score were recorded as 11.07, 1.410 and 0.315 respectively and were found to be statistically non-significant.

Table 3: Flexibility

Subject	Mean	S.D.	S.E	't' Ratio
Pre-test	1.96	0.05	0.12	
Post -test	2.46	0.25	0.05	2.68*

*Significance at .05 level. (df-18); Tabulated 't' value=2.10

An examination of table-3 revealed that mean, standard deviation, standard error of mean value with regard to predata on sit and reach test were recorded 1.9695, 0.0566 and 0.1265 respectively where as in the case of post-data the same were recorded as 2.4635,

0.2555 and 0.0571 respectively and 't' ratio (2.689) was found to be statistically significant at 0.05 level.

Table 4: Broad Jump

Subject	Mean	S.D.	S.E	't' Ratio
Pre-test	1.69	0.41	0.09	
Post-test	1.76	0.53	0.11	2.93*

*Significance at .05 level. (df-18); Tabulated 't' value=2.10

Table-4 indicates the mean, standard deviation, standard error of mean value with regard to pre-test on broad jump variable were recorded 1.691, 0.413 and 0.092 respectively were as in the case of post-test the same were recorded as 1.763, 0.532 and 0.118 respectively and 't' ratio (2.936) was found statistically significant at 0.05 level.

Conclusion

The results of the study showed that yogic practice have significant effect on flexibility, strength and cardiovascular endurance whereas the variables reaction time and hemoglobin showed no significant difference between pre and post training results. With the help of yogic practice elastic component of muscles can be stretched and consequently develop tension due to its elastic resistance to stretch. This effect is the mechanism in the muscles contribution to contractile force. It is effective in those activities which involve voluntary muscle contraction and elastic recoil (e.g. running, jumping, hopping, agility etc.). The net result of reflex activity is a more vigorous contraction of a given muscle when it is a forcefully stretched (e.g. in the take-off leg in long jump). Thus we can conclude that:

1. The yogic practice improves the mental and physical health of the individual.
2. The practice of yoga increases the flexibility.
3. The muscular strength of individual also improves after the three months of yogic practice.
4. With the practice of yoga one can notice significant improvement in Explosive strength of legs.

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