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Editorial

Demonetizations a Bitter Pill for Indian Economy

This Step that was taken is hailed as the biggest boldest reform in the Independence Era for irradiation of black money out of circulation, to stop supply of Indian Currency for terrorist activities ,for ensuring free and fair election across India.. This got everyone to talk about this. Everyone to give their suggestion, advice, comments. Demonetization. From November 8 2016, There has been a lot of changes in the mindset of a common man. Demonetization has its pros and its cons. This drive will shift the common man towards Cashless Digital Mode . A lot of cash transactions will be reduced and restricted to minimum limit. What digital economy will do is every penny spent and earned will be accountable. Every money entering the bank mode will have to be justified. The Taxpayers will increase and thus the revenue to Government will too. India is living in 2 parts. There are cities , and banks, and atms and then there are villages where the infrastructure has not yet reached. The biggest hurdle to Demonetization is the reach in Villages, and infrastructure to build it. The maximum population of India lives in Villages. To achieve the vision of Cashless Economy, there has to be Internet in village, Broadband services, Banks, Smartphones, and most importantly Mobile literacy. There are huge hurdles and inconvenience attached to it but surely this step is taken for the future. A lot of digital wallet companies will be born and the spending approach of the customer will increase. The natural shift from saving to spending will take place.

India shall face all the walks, problems of payments in cash, payments for daily needs such as purchase of fruits ,vegetables, milk etc. all this shall face challenges in every walk of life. The success shall depend on the extent to which we shall swallow bitter pill of Cashless Economy. Challenges are plenty, education of masses for adoption of digitalization, not only in rural but masses in cities where rate of digitalization is very slow.

One of the welcome feature is We shall see coming elections where chances of getting elected shall be for those who deserves, not who had mussel of money power.

We as researchers will find this as a favorite topic as this is the most relevant topic, along with uncertainty and open to full of suggestions. We need to analyze and research on the problems it will pose and the possible solutions to encounter it.

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Effects of an Intensive Aerobic Training Period Supplemented with Silymarin on Inflammatory Markers Studied in Healthy Inactive Young Men

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Abstract

This study aimed to examine the effect of aerobic exercise extreme short-term supplemented with silymarin on inflammatory markers in healthy young men. In this study, forty healthy young men participated on a voluntary basis. The volunteers were divided into four groups: a supplement group (n = 10), (b) exercise group (n = 10), C supplementation and exercise (n = 10) D: control group (n = 10). Experimental groups participated in aerobic exercise three times a week for 4 weeks while the heart rate increased to a maximum intensity of 55% of the maximal heart rate was 85 per cent. In this study, supplementation groups took 2 tablets daily of 140 mg silymarin consumption. Blood samples before and after 4 weeks of training variables to measure lactate dehydrogenase (LD) and creatine kinase (CK) plasma was collected. The results revealed that although the concentration of creatine kinase reduces silymarin supplement caused significant difference was observed between the groups ($p<0.05$). In addition, a significant difference between the groups was observed in lactate concentration Dhydrvznaz. But Silymarin significant decrease in percent body fat with exercise and supplementation caused significant increases in maximum oxygen uptake. As a result, use of silymarin along with exercise can improve body composition and reduce cell damage caused by the exercise.

Keywords: intensive aerobic, silymarin, inflammatory markers, aerobic power

Introduction

Regular physical activities have an important role in improving cardiopulmonary fitness and by leaving exercise and sedentary destroyed the achievements of good practice (1). Physical activity, especially strenuous exercise can cause changes in blood composition, tiredness, muscle membranes pains and produce large quantities freed radicals that cause damage to cell membranes protein and in some cases it may endanger sportsmen's health and reduce administrative ability. After being active in moderate exercise to the point of exhaustion, changes establish in muscle and blood, some of which include the reduction of levels of Creatine phosphate and ATP in the muscle and also increased lactic acid in the blood. Researchers believed that muscle damage caused by exercise, together with the failure (EIMD) unusual muscle structure and also linked to local ischemia. Several researchers have always sought to identify these injuries (2).

Implementation of intense aerobic activity and rising energy demand and consumption of oxygen in active context produce reactive oxygen species, so it causes oxidative stress and disruption into the balance of oxidants and antioxidants created destructive effects on cells(3).

To increase intensive and endurance aerobic activity leads to increase inflammation indicators in the blood that the most important factors, such as lactate dehydrogenase and creatine phosphokinase, which indicates assessment indicators of cell damage(4).

Creatine kinase is a key enzyme that causes the muscle cell metabolism and accelerates the conversion of creatine phosphate or vice versa. This enzyme in healthy individuals located within the cell membrane and in the blood is low and the amount of plasma levels increases cell damage. The most sensitive enzyme, the sign of muscle damage is creatine kinase (5). The results of research that explores the 12-week regular exercise (endurance, speed or a combination) express that the amount of enzyme creatine kinase activity (CK) in endurance and combination group compared to the control

group had significant increased(6).

The enzyme is a sign of muscle cell damage of lactate dehydrogenase which its emergence into the plasma shows cell damage. Changes of this enzyme will happen with an interval greater than creatine kinase and its amount usually increases gradually about 24 to 48 hours after stimulation. Recent research, increased amounts of enzymes of muscle damage indicator reported after exercise, sports competition and said that the amount of concentration of creatine kinase and lactate dehydrogenase with the factors of intensity, duration and type of exercise have linked (7). In the same way, researchers reported that running with 70-75% of maximum oxygen consumption significantly increased levels of creatine kinase and lactate dehydrogenase, lactate and uric acid in the training group(8). Many scholars' research results indicate that after exercise, muscle contraction causes damage to the muscle fibers, connective tissue, cell membranes, and increased levels of CPK and LDH. On the other hand, severe and prolonged exercise without proper recovery time cause damage to muscle fibers during contractions, the internal breakdown of skeletal muscle and connective membranes and tissues and with an inflammatory response, infiltration of macrophages, enzyme Sytozomy, membranes Sytoplasmiftar and the release of LDH and CpK and appears symptoms of pain(9) .

Today, the use of antioxidant supplements to prevent the damaging effects of reactive oxygen species has been regarded. It seems that the lack of accompanying complications herbal supplements has positive impact on these indicators of inflammatory and cell damage (10). Recently, after proving, being carcinogenic of synthetic antioxidants, search for finding natural antioxidants has tremendous importance. The phenolic and flavonoid parts of plants are strong antioxidant in natural and laboratory environments (11).

Silymarin is a natural and herbal supplement with antioxidant property, a substance derived polyphenolic Silybum marianum that can be found in all parts of plant, but it has more concentrated in seeds and fruit. This plant has a very large group of flavonolignan include Silybin, ISO Silybin, Sily Dyanyn and Sily Christine and has antioxidant and anti-inflammatory effects (12).

In Parr study that prescribed 300 mg of silymarin per day for 1 week and then 200 mg of silymarin per day for 1 month on 16 alcoholic liver disease studied, the results showed a significant reduction of these inflammatory indicators CPK, LDH and significant increase glutathione and reduction in Malon Di Aldeid.

In another study, Roghani and colleagues reviewed the long-term effects of silymarin on these indicators of oxidative stress in 1391. The obtained result suggest that silymarin prescribed for four weeks, at a rate of 100 mg per kilogram of body weight can be reduced dramatically in these indicators of oxidative stress(14). According to research, conducted conclusion show that silymarin due to strong antioxidant reduced the levels of these inflammatory indicators and inhibition of the production of free radicals after intense physical activity.

Based on previous research, vigorous aerobic exercise increases these inflammatory indicators and liver enzyme. Thereby the results suggest that silymarin supplement caused the reduction of liver enzymes level and inflammatory indicators. This study examines the effect of short-term, intense aerobic exercise and supplementation with silymarin on these inflammatory indicators in sedentary young men.

Materials and Methods

The population of this research is made by male students of Medical Sciences of Guilan University. First, to select the statistical sample, a statement was distributed among all students and based on information collected from healthy individuals and individuals who had no regular participation in physical activities and exercises in the last 6 months, the samples were selected and invited to participate in the research.

After providing the questionnaire that contains information such as patient records, physical activity, history of disease and a history of drug use, the results of respondents were examined. And 40 patients from healthy individuals aged 18 to 21 years old; voluntarily participated in this study and were aware of the different stages of research. After the acquisition of agreement between the tests and

receiver tests of demographic and medical information sheet and consent form is completed.

According to obtained information from the questionnaires and clinical examination, it was found that none of the subjects had no chronic disease, behavioral disorders, surgery, smoking, antioxidant supplements functions and performance-enhancing drugs, infectious disease, kidney, liver, heart, - vascular and so at the time of the study ,they were not under drug treatment.

Factors such as height, weight, and age and body mass index were measured. Subcutaneous fat was determined by caliper device to homogenize receiver tests in groups are used. People divided in 4 groups 1-control subjects (n = 10), 2-supplements (n = 10), 3-exercises (n = 10) and 4- exercises along with supplements (n = 10) groups.

Subjects are asked

During workout program and supplementation from doing heavy damage exercises and use of any supplements and anti-inflammatory medications such as methyl xanthines, ibuprofen, ginger, etc., as well as supplements which have high antioxidant refrain.

Subjects of exercise group exercised for 4 weeks and every week three sessions. Exercise was done in couple days in Enghelab garden hostel gym of Guilan Medical Sciences University.

Subjects of exercise group and exercise-supplements, before doing exercise on a treadmill, first exercise a 10-minute that included jogging and stretching the muscles with the aim of increasing joint range of motion. People did their cardio exercise on the treadmill Spirit Model ST -900 made in Taiwan.

After determining the pulse beat at rest and maximal heart rate, they started to exercise in the first week with an intensity of 55 to 65 per cent in the first, second and third sessions for 30 minutes.

Table1. Stages of implementation of research plan

Time	Intensity on the basis of maximal heart rate	Workout duration (minutes)
First week	55-65%	30
Second week	65-70%	30
Third week	70-75%	40
Fourth week	75-85%	40

To measure the athlete's maximum oxygen consumption, the protocol El maestro was used(15).

In group 2 and 4 that silymarin supplements intended for a period of 4 weeks to maintain a constant diet, twice daily, one tablet containing 140 mg of silymarin (the scientific name Livergol Goldaroo Company made in Iran) after breakfast and one after dinner consumed.

During this period, the control group continued their normal daily life and don't take any medications or other substances and the training program are not considered for them.

To examine the biochemical variables, sampling after 12 hours of fasting in two stages (before training and after 8 weeks exercise) was done.

Sampling methods:

Sampling before starting a workout, and 48 hours after the last training session at a rate of 10 cc of the right arm vessel- in a sitting position and resting after 10-12 hours of fasting blood, all testers was done. The right hand vein of each subject in a sitting position and resting 10 ml of blood was taken and in collected samples the values of LDH, CPK were measured. Blood samples collected in

tubes containing EDTA and centrifuge in order to separate the plasma in the second round of 3500 rpm was placed for 15 minutes. The resulting plasma was poured in micro tubes and was kept for the next measurement in the freezer with a temperature of - 70 ° C. These indicators creatine kinase and lactate dehydrogenase s blood samples using a 917 Hitachi in Japan and permit kits made in Iran and were measured by ELISA.

Statistical methods and data analysis

To determine the consistency and normal data, Kolmogoroff - Smirnoff test was used. In order to compare the groups ,it was used Descriptive way to compare between a group (compared different pre-test and post-test) and paired t-test was used to compare within a group. The significant level P <05 /0 were considered. All statistical operations in this research were performed through the software SPSS 22.

Findings

According to ANOVA test results showed that the subjects of every four groups in terms of age and height were not significantly different (Table 2).

Table 2: Comparison of demographic characteristics of the studied groups

Variables	group	average
Age(year)	Practice	88/19±36/1
	Supplement	00/20±49/1
	Supplements + exercise	70/20±76/1
	Control	80/18±03/1
Stature(cm)		
	Practice	176±05/0
	Supplement	177±05/0
	Supplements + exercise	174±04/0
	Control	178±05/0
Weight(kg)	Practice	55/73±58/15
	Supplement	50/80±86/10
	Supplements + exercise	95/69±39/10
	Control	40/76±43/15

Although using silymarin supplements reduce the concentration of creatine kinase, but there was not a significant difference between the groups.

Between groups are not also significant differences in the concentration of lactate dehydrogenase but body fat percentage and maximum oxygen consumption in groups, practice, practice - complementary to the pre-test and post-test changed significantly. Also fat-free mass in the pre-test and post-test training-supplements were significantly different (Table 3).

Table 3: Comparison of demographic characteristics and physiological changes of subjects are studied in groups

* Sign of a significant difference to the pre-test

$ sign of a significant difference with the control group and supplement group

Discussion

The results of this study showed that moderate-intensity aerobic exercise combined with Silymarin supplement is reduced creatine kinase. So that Silymarin supplementation consumption caused a reduction about 36% in creatine phosphokinase concentrations, but when combined with exercise, the amount of it decease and gets to 10 percent, though this reduction was not statistically significant. Against the exercise group did not show any reduction and there was no significant difference between the groups.

Lactate dehydrogenase concentration in all groups is also rose slightly, though statistically was not significant. The results of this research were contradicted with the results of Hartmann et al. (2000), Vigloso et al. (2014) and Gaini et al. (1389). Hartmann et al. (2000) showed that sportsmen have a basic level of creatine kinase that has wide variation (16), and when act with moderate to high intensity (70% of maximum oxygen consumption) causes cellular damage and oxidative stress (17). Research shows that production of freed radicals from exercise gives first place in the cytosol and its amount depend on severity, duration and environmental conditions (3, 18). Although exercise increases free radicals, but, it doesn't t always result in oxidative damage to skeletal muscle (19). Low intensity and duration caused to increase oxidative stress in skeletal muscle (20). But exercise with moderate to high intensity usually increases oxidative damage in untrained people (19). So one of the possibilities of the lack of changes in cell damage in this study was caused by the intensity exercises; because the intensity in fourth week reached almost 70% of the consumed oxygen, so cellular damage has been limited by this practice.

Other studies report that exercise, weightlifting (21) and extreme sports (22) will increase indications of muscle damage even up to 10 days after exercise. For the first time, researchers showed that 9 weeks endurance training with 75% intensity of oxygen consumption increased Enzyme lactate dehydrogenase (23). Gaini's and et al. findings (1389) showed that endurance training with 70-80 percent intensity of maximum oxygen consumption increased the concentrations of PKC and LDH- (24). The reason for this paradox can be caused by exercise intensity.

It is also shown that increased lactate dehydrogenase and creatine kinase is followed by increasing the permeability of the plasma membrane because of indirectly cellular damage (25) that it is parallel with increasing oxidative stress caused by physical activity (26). During severe exercise in skeletal muscle of oxygen consumption will increase (27). Subsequently the amount of freed radical production increases which antioxidant system prevents the harmful effects (28) and freed radicals cause cellular damage (26). Probably some compatibility are occurred by these exercises and supplement silymarin which due to short duration of exercises and supplement consumption (4 weeks), the changes of the enzyme are not reached significant levels and more are due to cellular changes and antioxidant system. Endurance exercise trainings result in increased expression of anti-Oxidative enzymes in skeletal muscle (20)

Researches in the field of polyphenols supplementation consumption (including silymarin) about muscle damage are different. The researchers reported that cell damage in animals, not only in plasma antioxidant capacity but also in muscle increases, it was shown for the first time that polyphenol compounds increases the antioxidant capacity in skeletal muscle (29). so it is possible that silymarin supplement will increase the antioxidant capacity of muscle. During the study it was found that trained cyclists who were used silymarin supplement (polyphenol compound) after 90 min of exercise with 70% intensity showed increase in maximal oxygen consumption creatine kinase and decrease in lipid peroxidation in supplement patients (26).

Contrary to previous studies, the researchers reported that polyphenols are not under the influence of creatine kinase, even though its amount after the damage increases even with polyphenol supplementation (30). But no increase in the plasma level of CPK and LDH can also be caused by preventive mechanisms of silymarin supplements: because silymarin supplement has polyphenols compounds. Polyphenol supplementation increases satellite cell after damage and this caused the increase in satellite cell proliferation with an initial expression of myosin isoforms with a heavy chain, and also reduces neutrophil infiltration and free radicals (29).

There is a theory that polyphenol supplement has more functionality in response to produce free radical (30), which probably is by increasing antioxidant enzyme activity(31).Silymarin complement also has an active ingredient called silybin. Silybin results in reducing the production of nitric oxide and superoxide anion radicals (32). So, through the above mechanism would reduce freed radical reduction and then reduce cell damage and ultimately reduce the permeability of creatine kinase and lactate dehydrogenase to blood.

In addition, the percentage of body fat decrease in the group, though there are not significant

differences between the groups. On the other hand, Silymarin supplementation with exercise increased Fat-free mass but had no effect on body mass index. Also aerobic power in exercise group and exercise group along with supplement has significant increase compared with other groups that agree with the outcome of the investigation of Hamedinia (1386), Suri et al. (1392), Viglsa et al. (2014), and Davis et al (2010).

Hamedinia (1386) in addition to study the effect of selected program of long-running with low-intensity on men's aerobic power and body composition showed that this exercise program reduced body fat and a positive impact on body composition and increase the efficiency of the cardiovascular system (33).

In another study, the results of Suri et al. study (1392) showed that selected aerobic exercise causes a significant decrease in body weight, body fat percentage and increase cardio respiratory endurance in sedentary male adolescents (34). It is reported that 9 weeks of endurance training with intensity 75% peak oxygen consumption increased maximum oxygen consumption (23) although exercise duration (4 weeks) in this study was low in compared with other researches.

In one study it was shown that supplements containing flavonoids caused to increase maximal oxygen consumption. To increase mitochondrial content is one of the most important factors to increase endurance performance in response to exercise training (35) it is also a doubling increase of muscle mitochondria that occurs as a result of exercise and has an important role to increase the maximum oxygen consumption (36) On the other hand, silymarin supplement that has polyphenol composition can be influenced on oxygen consumption increase through various mechanism.

Natural supplements of flavonoids can increase mitochondria biogenesis through intracellular signals include PGC-1α and Sertuin 1 (SIRT1) that are the relationship between improving endurance performance and health in mice.

On the other hand, exercise training especially aerobic exercise influences through various mechanisms on body composition (37). Endurance training with increasing consumption energy and negative energy balance can regulate body weight and fat mass. Endurance training would also reduce the percentage of body fat by increasing fat oxidation (38). In this study, given that the maximum oxygen consumption and Fat-free mass increased, it is likely that the muscle mass and plasma volume increased, too. Given that muscles are the most energy consumer in body, they can cause changes in body composition with increasing energy consumption and negative energy balance. On the other hand, to increase maximum oxygen consumption can provide needed oxygen to tissues and from this way, the oxidation of fat that needs more oxygen is increased, thereby will reduce body fat percentage in this study.

Conclusion

The results of this study showed that a short period of endurance exercises with low intensity to nearly 4 weeks with and without silymarin supplement can cause a protective role against cellular injury. Although there was no significant difference between indications of muscle damage between groups and within a group, but Silymarin supplementation reduced the concentration of creatine kinase. So, the results of this study suggest that using silymarin supplementation combined with aerobic exercise that can have a preventive effect in reducing cell damage, leading to improve body composition and increase cardiorespiratory capacity.

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A Study of Impact of Yoga and Garbha-Sanskar on Child

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Abstract:

Indian culture is conscious about to sending cultural values including ideal human beings, ideal family and ideal society to the generations. Garbha Vidya literally means that building the physical and mental character of a child during pregnancy through an ancient truth it appears to have been forgotten. Positive thinking, reading books, listening music, colour therapy concentration along with yoga etc. became the protocols of Garbha Vidya. Numerous scientific evidences and experiments are going on about Garbha Vidya. Fetus who has the opportunity to hear stories and music repeated to them in uterus can demonstrate recognition for this material later in life. Better sleeping habits, better at breast feeding, more alert, confident and bond with parents better are some of the advantages of practicising Garbha Vidya. These are the gifts and rewards of active parenting. To compete in today's overgrowing population and resulting race our future generation needs to be very intelligent, resourceful and creative. By following Garbha Vidya, in another hundred years, every pregnant woman will be consciously cultivating happy joyful thoughts specially to foster optimal growth for their unborn children.

Keywords: Yoga, Garbhavidya, Pregnant Women, Fetus

Introduction:

The word pregnancy brings with itself a variety of emotions. On one hand, it means devoting the conjugal life toward divine process of "Syrian" (or) creation, expectations of a new life descending on earth, unbridled joy, happiness, excitement and expansion. On the other hand, it also means the beginning of a long wait, anxiety, pain and labour. Whatever it may mean to different people, a common aspect of pregnancy is a couple's involvement in creation with a series of possible complications associated with it (Saraswati, 2010).

Few Examples of Garbhsanskar:

- Abhimanyu: The story of Abhimanyu is well known in the Mahabharata. Abhimanyu the son of Arjuna, learned how to enter the Chakravyuha (strategic arrangement of warriors to entrap and defeat the enemy) when he was in his mother's womb. He had heard and remembered the narration of the technique by lord Krishna to Subhadra during her pregnancy.
- Prahlad : When Prahlads mother was pregnant with him, she used to listen to devotional songs. Therefore even through Prahlad took birth in a Rakshasa family he became a devotee of lord Krishna.

Benefits of Garbha Vidya:

By practicing Garbha Vidya, the baby will

1. have better sleeping habits
2. be more alert and confident
3. more content
4. more active at birth
5. better at breast feeding
6. bond with parents better

The advantages of Garbha Vidya are not only that you educate your child and there is development of a bond between the mother and the child and also has a great impact on the health of mother. The positive thinking and attitude promotes physical well being of the mother

a. Positive thinking

Thinking positive always and try to retain a happy atmosphere around you bring only positive thoughts to your mind and think about your good times in the past (or) think beautiful scenery (or) landscape (or) anything that makes you smile and fell happy.

b. Reading books

Reading books that give positive feeling and avoid books that are filled with horror (or) thrilling feelings.

c. Listening music

Listening music not only sooth the mother, baby will feel good and it will calm down mothers in nerves too. The importance of prenatal sound and music which included sound environment in the womb, music aids development in the womb, pre-natal brain stimulation hearing at birth the maternal womb is the first school of music, music and prenatal stress reduction, prenatal memory and learning communication before language and sensitive to touch.

When particular Raaga i.e tunes will produce "Peaceable" as well as "courageous" temperament of the baby by using "Shanti – Raga" and "Veera-Raga" tunes. The rhythmic sounds of music are captured by a Child's subconscious mind very effectively. The vibration of sound waves can influence both mother and her fetus therefore the music designed for Garbha Vidya is useful for the health and personality development of fetus.

d. Color therapy

Concentrating on favourable colour for 12 minutes morning and evening will cause to increase coverage and confidence.

e. Concentration

Great personalities such as great philosopher Swami Vivekanada, Shivaji Maharaj and picture of a beautiful, wonderful, attractive baby will induce positive thoughts and courage with confidence.

f. Yoga

The benefits of yoga during pregnancy includes that yoga minimizes the discomforts and complications faced during different stages of pregnancy. It improves the circulation of blood, which really helps in dealing with different functional changes occurring in the body.

Analysis of Case Study:

This is a factual story of my own son. He was facing a problem of archnoid cyst in his brain. This was detected when I was 6 month pregnant. I was carrying out Garbha Sanskar alongwith my daily routine activities. I used to listen Ramraksha, Geeta 15th Adhyaya and many string instruments during that endeavor. I have observed some remarkable things after his normal birth.

1. The baby is calmer.
2. The baby is more towards listening to peaceful music than other loud voice,
3. The concentration of baby was more and at the age of 3 he was able to sit for half an hour for studies at a time.
4. The baby possess very clear handwriting so as his thoughts.

The baby was said to be abnormal before delivery. But Garbhasanskar made the mom real relief and a strong willpower. Ultimately a baby is absolutely normal, calm and energetic.

Conclusion:

By following Garbha Vidya, in another hundred years, every pregnant woman will be consciously cultivating happy joyful thoughts specially to foster optimal growth for their unborn children.

Referecnes:

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Biomechanics and Sports

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Abstract:

Biomechanics is the study of the body as a machine. This study of the body looks at the internal and external forces that act of the body and the movement that these forces produce. Biomechanics is the field in sports science that applies the law's of mechanics and physics to human performance, in order to gain a greater understanding of performance in athletic events through modeling, simulation and measurement .In relation to sports , biomechanics contributes to the description, explanation ,and prediction, sports and play. Sports biomechanics is the quantitative study and analysis of professional athletes and sports activities in general. In the history of physical education and sports, individuals have been interested in enhancing their performances. Today physical education teachers, coaches, and physical trainers are concerned with helping individuals to learn how to move efficiently and effectively.

Key Words – Body, Performance, Study, Sports, Play, Athletes

Introductions

Human body consists of bones and muscles which help the body to perform external movement .Muscles provide necessary of human beings energy and force for movement, whereas bones act as lever in performing work. Biomechanics is the field in sport science that applies the laws of mechanics and physics to human performance, in order to gain a greater understanding of Performance in athletic events through modeling, simulation and measurement. It is also to necessary to have a good understanding of the application of physics in sports, as physical principles such as motion, resistance, momentum and friction have their application in most sporting events.

Biomechanics is a diverse interdisciplinary field, with branches in **Zoology, Botany, Physical Anthropology, Orthopedics, Bio- engineering and Human Performance.** The general role of biomechanics is to understand the mechanical cause - effect relationships that determine the motions of living organisms. In relation to sport, biomechanics contributes to the description, explanation, and prediction of the mechanical aspects of human exercise, sport and play .The word Bio-mechanics is taken by the combination of two words **' Bio'** and '**Mechanics'**. 'Bio' is a Greek word meaning **life or living** things and **'Mechanics'** refers to the field of physics and the forces that act on bodies in motion.

Coaching is mainly **an art** and, like the artist the coach must have two important attributes with him. **The First is creative flair,** that **marriage of aptitude and passion which enables him to draw a sportsperson's dream towards realization**. The sportsperson, moved to express himself within a social pattern, chooses to do so in pursuit of competitive excellence in sports. The coach creates, for that expression order and direction. **The Second attribute is technical mastery of the instruments and materials used**. The athlete is **the instrument** and **the material** with which the coach works. Structurally, he is a system of levers, giving movement by the pull of muscle, and obedient to the law of physics. Functionally, he is a dynamic integration of adaptive systems. But more than that, he is a reasoning being.

The human body having evolved to its present form through a multitude of accidents or chance mutations, may be unique with respect to its anatomy and physiology, but the same laws and principles which govern all other animate and inanimate objects in the universe are also applicable to it. All motor skills performed with an implement (bat or racket) or without, are influenced in varying degrees by one or, in most instances, a number of these physical laws and principles. These are commonly considered mechanical laws and principles and they may be classified as **static or dynamic** involving, on the one hand, objects in a state of motionless equilibrium and, on the other, objects in motion. Dynamics is further subdivided into **kinematics** and **kinetics.**

Kinematics analyses motion in terms of **time, displacement, velocity, or acceleration**. In the language of men c it is the geometry of motion and it describes the above four states of motion as they

occur either in a straight (linear) line or in a rotary (angular) direction.

Kinetics is that aspect of dynamics **which considers the force or forces which cause objects or bodies to move. Force be a pull or a push.** All levers in the human body are pull type machines but in performing skills the elements becomes a mechanical part of total skill-like the force from the hand which 'pushes' the shot. Human levers produce force to overcome resistance, and this action is work. Kinetics considers the forces, which cause motion and includes **Newton's three 'Laws of Motion**.

Newton's three 'Laws of Motion--- These laws along with Newton's discovery that forces act according to the rules of geometry, have formed the basis for modern mechanics and ,hence, sports biomechanics.

Newton's First Laws --- The Law of Inertia

A body will remain in a state of rest or of constant linear velocity unless it is acted upon by some external unbalanced force.

Explanation: It simply states that a body will remain in a equilibrium either in the absence of external forces or when the net sum of all the external forces acting on the body equals zero. For example**, a thrown ball will not go on forever in a straight line uniform velocity, because of gravity and air resistance, two external forces that slow the ball and pull it downward .In the same manner a rolling ball will eventually come to rest because of frictional force**, which always opposes the motion of one body over another.

Meaning and Definition of Inertia— Inertia a word derived from the Latin for idleness, may be defined as "the tendency of a body to resist any change in state of linear motion."**Another definition is that inertia is a property of matter that requires some force exertion to change a body's condition of motions**. Rest is a special state of motion and a body will remain at rest forever unless an external unbalanced force acts upon it.

Newton's Second Law - The law of Acceleration

When an unbalanced force is applied to it, a body experiences an acceleration which is directly proportional to the unbalanced force, is in the same direction as the unbalanced force, and is inversely proportional to the mass of the body.

In simple words, the acceleration of a body is directly proportional to the force acting on it and inversely proportional to the mass of that body or object, and is in the same direction as that force-

Explanation : This law states the relationship between the mass, force and acceleration. it is applicable in many sport skills. For instance, in the act of hitting (force) a thrown ball (mass), the heavier the ball or the faster it is moving, the greater force is required to change its direction and speed.

Definition of Acceleration - It is defined as the rate of change of velocity, i.e. a change in either speed or direction of movement. It is expressed as some feet/metres per second per second (ft/s2 or m/s).

Newton's Third Law - The law of Reaction--

For every linear action, there is an equal and opposite reaction, or

For every action force there is an equal and opposite reaction force.

Explanation - All forces act in pairs, and one could say that for every force exerted by one body on a second, there is an equal and opposite force reaction by the second body on the first. **Two forces must interact; for example, when a sprinter drives against the starting blocks, the blocks push back against his/her feet.** Carrying this further, the blocks must in turn push against the ground, which then instantly applies an opposite force against the blocks. If the blocks were to slip, there would be inadequate reaction and the runner would have a poor start. **Other examples could be walking, jumping and so-on.**

Levers-

The lever is a type of machine. It is the human body's mechanism for movement and although it may be viewed as a part of skeletal system, the role of the muscles in supplying the necessary force

for lever action should be kept in mind. The bony levers are motionless objects until they are moved by the muscles which in turn are motionless until stimulated by the nervous system.

Definition of a Lever--

A lever may be defined as "a rigid bar that is used to overcome a resistance when a force is applied to one side of the fulcrum". '

The functioning lever is characterized by three main parts :

(i) The Fulcrum (ii) The Force Arm ,and(iii) The load/Resistance Arm

The Fulcrum-- It is the point at which the lever rotates or turns and which identities the lever class by its position in relation the other two parts. In human movement, the fulcrum is the joint which dictates the kinds of action.

The Force Arm-- It is the point at which the force is applied,

The Load/Resistance Arm-- It is the point where the load or resistance is located.

Levers can be found either internally in the form of **extremity bones (limbs)** or externally in the form of **sports implements such as rackets, bats, poles, hockey,sticks and so on**. One should be clear that the bar referred to in the definition can be of any shape.

Types of Levers—

There are three types of levers.,(i) First Class Lever (ii) Second Cass Lever (iii) Third Class Lever

First class lever : A first class lever has the fulcrum located between the force and the resistance. In this class fulcrum may be moved about along the lever thereby, changing the relative length of the force arm and the resistance arm. If the fulcrum is placed close to the resistance, the force arm is lengthened and less force need be applied to move the resistance, but the force must be applied through a long distance in order to lift the resistance a short distance. Conversely, a shortened force arm requires greater force app application, but there is a gain in speed and range of motion at the resistance end.

Example

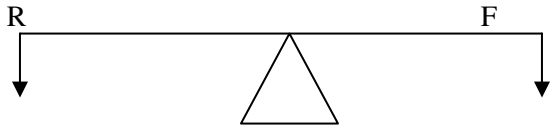

Fig. 1. First Class Lever

(i) The triceps operation at the elbow joint

(ii) A statically held V-sit up position.

Second Class Lever : A second class lever has the load or resistance located between the fulcrum and the force. in this class of levers movement of the fulcrum will increase or decrease both the force arm' and the resistance arm. The force arm is always the longer of the two, and therefore the force needed to lift resisting weight will always be less than the weight.

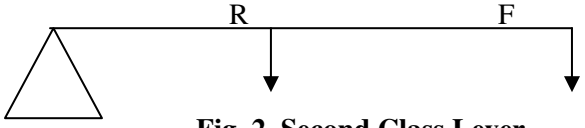

Fig. 2. Second Class Lever

Example:

(i) The foot acting as a whole is a second class lever when the fulcrum is the ball of the foot and the body weight is lilted to the toes by the force at the heel.

(ii) Straight Pushups.

Third Class Lever : A third class lever has the force located between the fulcrum and the resistance. In this class of lever, the force arm is always shorter than the resistance arm, and so a large amount of force must be applied, but the resistance is moved through a much longer range of motion that of the force application. In the human body, the most common class of lever is the third, and this

is particularly important in the motions of the limbs, because the results desired are very often those of speed or range of motion, albeit at the expense of force.

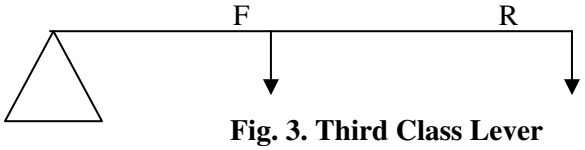

Fig. 3. Third Class Lever

Examples :

(i) The biceps is a classic example with the resistance located in the hand, the fulcrum located at the elbow joint, and the force located at the point of insertion of the biceps on the radius between the other two points.

(ii) Sit-ups.

Equi Librium (Stability / Balance)

When we say something is stable or balanced, we generally mean that it is not easily upset, that is to say, that it takes some effort to topple it. By contrast, of course, an unstable object is one that is easily upset.

Equilibrium or stability is necessary for performing skills. Naturally the centre of gravity (CG) shifts with each change in posture. In standing posture, the centre of gravity, while somewhat different for males than females is located near the centre of the upper pelvic region. It shifts with each new posture assumed by the body and a significant part of any skill is the continual adjustments of body segments to counteract this change in position and to control the center of gravity .Many of the supportive tasks used in regulating the center of gravity for equilibrium are reflex actions and occur without conscious thought.

What is line of gravity ?

It is defined as an am an imaginary vertical line that passes through a body's mass center. An abject will topple if its line of gravity falls outside its base of support. In the human body, the center of gravity, and hence the line of gravity, may move about relative to the support base , but it must fall within the boundary limits of the base a stable condition is to exist .

Types of Equilibrium/Stability

- **Static Stability/Equilibrium**
- **Dynamic Stability/Equilibrium**
- **Neutral Stability/Equilibrium**.

Static Stability/Equilibrium

Static stability involves held position or characterized by the centre of gravity remaining within the base of support. An athlete may be momentarily motionless either in preparation to perform a skill or in performing part of the skill itself. A gymnast holding a hand-stand position offers an example of the former condition, while the later condition is represented by the set position in track and Swimming starts. Static stability is very important in such skills as archery and shooting and in number of gynmastic stunts. **Stable objects generally have wide bases and low centers of gravity.**

Principles of Static Equilibrium / Stability

Achieving optimum static stability depends on one or more of the following mechanical principles:

I. Enlarged Base of Support

The larger the area of the base of support, the greater the stability. If a person widens his/her stance or gets down on hands and knees, the base is widened and stability is improved. This is a basic principle of balance and is characteristics of most big muscle activity, especially in sport skills .The four-point stance of the tackle in football. the Wide placement of the batter's feet in baseball the shoulder-width placement of the feet in jumping on the trampoline, and the relatively wide stance of the golfer are only a few examples. In most instances, the wide base of support is accompanied by a lowered centre of gravity.

Lowered Centre of Gravity

The lower the centre of gravity, the higher is stability, crouching low will increase stability; lying prone will maximize it, particularly if the arms and legs are well spread out to increase the base and centralize the line of gravity.

Direction of an Acting Force If the direction of acting force is known, stability can be increased by moving the line of gravity as close as possible to the edge of the base where the force is expected.

Body Weight

Body weight is directly proportional to stability. Other things being equal, the heavier person is more stable. .

Stability in Sports situations is quite unlike the stability of solid objects. When a wrestler is being pushed backward, he can make a variety of physical adjustments to respond to the force lf his line of gravity is being pushed beyond his base of support he can relocate his base by shifting his feet. He can push back or maneuver to redirect his opponents force. He can also trick his opponent into thinking he will be pushing when in fact he intends to pull. Many of the martial arts emphasize this concept of taking advantage of an opponent‘s errors in weight placement.

Dynamic Stability/Equilibrium

Dynamic stability is balance during movement, and it is much more difficult to identify the components of good dynamic stability than it is to describe the bases of static stability.“ frequently happens that the line of gravity of an athlete/sportsperson will fall outside the base of support for a moment. For example in a sprint start the body weight is well ahead of the supporting foot, but before the body can fall forward the other foot moves ahead to provide support and the process repeats itself. Under conditions of rapid acceleration during linear/straight motion, the line of gravity can be ahead of the supporting foot.

During rapid directional change, an athlete must lean inward to provide a turning moment that will offset the centripetal force acting at the feet. Balance will be lost if the co-efficient of friction between the athletes shoes and the ground is insufficient to provide the centripetal force, particularly during sharp turns at high speed. Balance will also be lost if the bend is not suitable to the radius or the turning speed.

Physiological and Other Factors Responsible for Stability

Physiological Factors : Related to both dynamic and static stability are physiological factor such as:

(i) Kinesthetic Sense,
(ii) Co-ordination, and
(iii) Inner-ear balance mechanism

Other Factors : **(i)** Experience of the sportsperson **(ii)** Familiarity with the surface conditions, **(iii)** Condition of foot-wears.

Neutral Equilibrium ::

This is a third category in which an object is in neutral equilibrium. in this condition the height of the centre of gravity is unaffected by a push, as in the case of a ball lying on the floor.

Centre of Gravity

Definition . The Centre of gravity is the point at which all the weight or mass of a body may be considered to be concentrated.

The centre of gravity of an individual standing III the anatomic pos three primary planes and axes.

For solid masses of uniform density, the location of this point, often called the mass centre, is at the geometric centre and remains constant no matter what position the object assumes. In rings or hoops, the centre of gravity it found in the air space at the centre of the circle.

The human body’s flexibility and its fluid, internal structure creates great problems in accurately locating the centre of gravity, because, while the mass centre can be determined for any given, momentarily fixed stance, any major movement is accompanied by a shift in the location of the centre of gravity. It means, in many sports skills the mass centre is constantly moving.

Locating the mass centre of a rigid object is not difficult and is even easier if the object is of

uniform density and of a symmetrical shape, in this case the centre of gravity is at the exact centre of the object. An object suspended from this point is in rotational equilibrium.

Since the late nineteenth century, there have been a number of efforts to locate the centre of gravity of the human body and of the body's segments. Research continues, but for the present we have to be contented with using figures which represent an average human structure as determined to date.

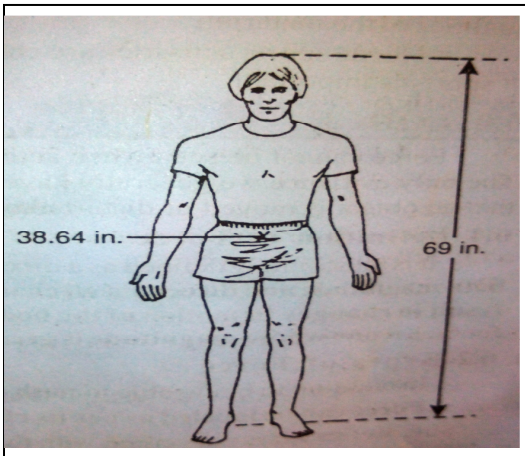

Fig.4 Mass centre of Average human body

For the average human body in all erect stance, the centre of mass is typically found in the range of 55 to 60 percent of standing height, or approximately on a level with the second Sacral vertebra (See figure 4). It is higher in children, and slightly lower in women than in men. In addition, each segment of the body has its DWI mass centre, which must be reckoned with in most types of movement analysis.

There are fourteen major segments, sometimes referred to by engineers as links, to consider :

(I) Head **(ii)** Trunk **iii**) Both thighs **(iv**) Forelegs Two **(v)** Feet Two **(vi**) Upper Arms Two (**vii**) Forearms Two, and **(viii**) Hands Two

Toes and fingures are normally insignificant factors in motion analysis and are not considered separately.

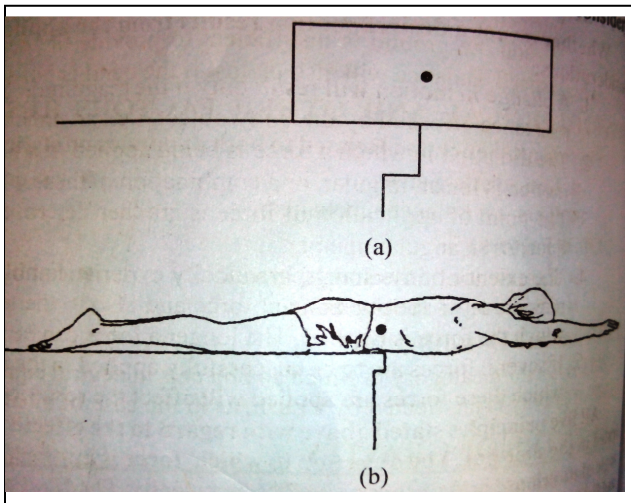

fig. 5 (a) Solid Mass (b) Body mass

To illustrate how a man differs from a solid mass and why segmental understanding is important to note in figure (5a) that unless some force acts on it, the solid mass will remain on the table indefinitely, since its mass centre is not beyond the table's edge. In figure (5b) observe that a human body can likewise remain in a « fixed position on the table if the necessary muscles are statically contracted to hold this position. However, as the muscles will inevitably tire, those parts of the body that are not supported by the table will sag and drop moving the mass centre insignificant factors in motion analysis and are not considered toward the feet while the lower body remains on the table. Gravity acts identically in both cases, but the differences, of course, is that the human body has joints, where the downward pull off the gravity must be actively resisted by muscular forces, whereas the solid mass in passively held together by some cohesive qualities of the material.

As far as sports activities are concerned, an understanding of the role played by the centre gravity in sports is important.

Force

Force cannot be seen when acting on some objects, but certainly it can be felt when it acts on M The Only evidence we generally have that a force is acting by the sound it made upon impact or the tag that an object is moved or distorted or toppled.

Definition of Force

It is most simply defined as **a directed push or pull by one body acting upon another. Because it has both magnitude and direction, all changes in motion are due to some force action, but not all force action result in changes in motion of the body acted upon. It means, it is necessary that there is an unbalance force, i.e. one whose magnitude is greater than the magnitude of the object to be moved.**

Types of Force

In addition to being able to push or pull, an unbalanced force may also cause distortion in an object.

Force can be labeled as per its effect on the object, as some names are given below :

Kinetics : It is concerned with the of unbalanced force i.e., with the causes of motion (linear and angular).

A Tension Force: It is the force which tends to stretch an object.

A Compression Force : When the force tends to squeeze an object, called compression force. A Sheer Force :A sheer force is one which causes one part of an object to slide relative to another part.

Centripetal Force : The force that produces acceleration and the change of direction form linear to circular. This force acts on the object in an inward direction along the radius towards the centre.

Centrifugal Force: It is nothing more than the equal and opposite reaction to the centripetal form and is the outward force exerted on the restraint. For example, in hammer throw, the cable is held tightly b! the thrower's hands to keep the hammer in circular path before release. There is a centripetal force mm: on the hammer pulling it inward, and there is centrifugal force acting outward on the thrower's hands.

Principles of Force Application –

Whether or not a desired motion results from the application of a force depends upon several considerations:

1. A change in motion will result only if the magnitude of the force exceeds the magnitude of the resistance afforded by the body/object, i.e., an unbalanced force must be applied.
2. The direction in which a force is being applied to a body will determine whether the resulting motion is linear, angular, or a combination of these
3. The point of application of force is another determinant of whether the body will move in a linear or an angular manner.
4. The extent of any change m velocity experienced by a body/an object IS proportional to the magnitude of the unbalanced force and also to the length of the time or to the distance over which the force is applied. The longer a force can be applied, the more a body will accelerate.

5. If several forces are to be successfully applied in the same direction to a body, the sequence in which these forces are applied will affect the resulting movement.

All five principles stated above with regard to the effectiveness of force application are well illustrated in the shot-put. The direction in which force is applied by a thrower to the shot determines the angle of its release into the air, as well as its velocity. The final point of application of the force by wrist and lingers establishes, whether or not the shot will rotate in flight and in which direction it will rotate. The longer the time in which the putter can apply an unbalanced force to the shot, the greater the final velocity of the shot. Distance over which force is applied is related to the time. All the putting forces should be summated from the ground up, i.e. the larger muscles of the legs and then of the trunk initiate the motion across the circle and get the necessary reaction from the ground and from various body segments. Additional muscular forces are applied successively to the shot until it is released with a final flick of the wrist and fingers.

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Effect of Asana on Health Related Fitness of Secondary School Children

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Abstract

Every individual needs health and fitness to lead a happy and enjoyable life. To achieve this diet and exercise plays a vital role & it helps the body to build healthy cells, tissues, glands and organs. For assessing the role of yoga in improving Health related Physical Fitness an experiment was conducted on the students of Lucknow City Uttar Pradesh belonging to different economic class/society i.e. Elite class having income above Rs. 2 lakh, Middle Class – Income below Rs. 2 lakh and Slum Area – Income below Rs. 60,000/-. Specially prepared yoga program (asanas, pranayamas & Omkar recitation) was administered on the subjects having age between 13-15 years. All the subject of experimental group underwent six weeks training of Yoga practices for 1 hour daily in the morning except Sunday and holidays. Simultaneously, the subjects of the control group were engaged in some others activities for 1 hour daily. The result shows that the subjects' benefited by the yoga program in improve Height (F=73.67, p=0.001), Muscular Endurance (F=137.15, p=0.001) and Flexibility (F=69.25, p=0.001) while it was helpful in reducing the weight (F=18.04, p=0.001). It was also confirmed that the yoga program has superior effect on slum class students than elite class in case of muscular endurance.

Key Words: Economic Class, Yoga Program.

Introduction

Every individual needs health and fitness to lead a happy and enjoyable life. Individual may be young or old, men or women, ill or handicapped, rich or poor, but they need physical, mental, social and emotional health. To achieve this diet plays a vital role & it helps the body to build healthy cells, tissues, glands and organs. The body can't perform any of its functions be they metabolic, hormonal physical, mental or chemical without proper diet.

Physical fitness, participation in physical activity, fundamental motor skills and body composition are important contributors to the health and the development of a healthy lifestyle among children and youth. It has been seen through many scientific research studies that significant health problems encountered in adulthood often have their roots in health behaviours initiated during childhood and adolescence (Grund, Dilba, Forberger, Krause, Siewers, Rieckert, and Müller, 2000; Heath, Pratt, Warren, and Kann, 1994). In order to reverse this trend, school authority, health personnel, and parents need to understand the growth, nutrition and health related fitness status of the teenagers belonging to slum, middle class and elite society.

In this context, Indian educational institutions consider Yoga in the curriculum of Physical Education with a view to encourage value education, personality development and mental growth. In reality, impact of yoga on children's growth, nutrition, health related fitness and performance related fitness is unexplored. Thus, the present study on yoga, fitness and nutrition for school children has social significance.

METHODOLOGY

Experimental Study

On the basis of survey study 90 subjects were randomly selected and assigned six equal groups as shown in table 1.

The experimental Groups received specially designed Yoga training (asanas, pranayamas & Omkar recitation) while remaining three Groups were treated as control. The design of the experiment has been planned in three phases.

Pre – Test (phase – I)

As the purpose of this part of the study was to see the efficacy of yogic practices on growth, nutrition, health related fitness and sports talent components, all the subjects of experimental and control groups were exposed to related standard tests to record the pre test data.

Treatment stimuli (phase – II)

After the pre test was over, all the subject of experimental group underwent six weeks training of Yoga practices for 1 hour daily in the morning except Sunday and holidays. Simultaneously, the subjects of the control group were engaged in some recreational activities, library reading etc. for 1 hour daily. In the mean while, all the parents of the students of experimental groups were given ideas about yogic diet to be given to their respective child.

Table 1
Subjects of the Study

Class	**Experimental**	**Control**	**Total**
Low income-Slum	15	15	30
Middle class	15	15	30
Elite	15	15	30
Total	45	45	90

Post test (phase III)

Finally, when the treatment or training period of six weeks was over, all the subjects of experimental and control groups were assessed with the standard tests which were already performed in pretest.

Variables, Tools Used & Criterion Measures

Before and after experiment following tests for the subjects of both the experimental and control groups were assessed with the help of some standard tests (Table 2).

Table 2
Variables and Criterion Measures of the Study

Variables	**Tools Used**	**Criterion Measures** (Nearest to)
Growth variable:		
Height	Stadiometer	Cm. (0.05 Cm)
Weight	Weighing machine	Kg. (0.5 Kg.)
Health related physical fitness variable:		
Abdominal muscles strength	Sit ups test	No./min (1.0 No.)
Flexibility	Sit & Reach test	Cm. (0.05 Cm.)
Body fat	Fat O Monitor	% (0.5%)
Cardiovascular endurance	1400 M run	Min:Sec (0.05 Sec)

Table 3
Specialy Prepared Yoga Program

Sr. No.	Name of Yoga Practice	Sr. No.	Name of Yoga Practice
1	Shavasana	**12**	Chakrasana
2	Pawanmuktasana	**13**	Parvatasana
3	Naukasana	**14**	Tadasana
4	Viparitkarani	**15**	Halasana
5	Bhujangasana	**16**	Brahma Mudra
6	Shalabhasana	**17**	Ujjayi Pranayama
7	Vajrasana	**18**	Anuloma-Viloma
8	Vakrasana	**19**	Kapalabhati
9	Paschimottanasana	**20**	Om Recitation
10	Mayurasana		
11	Janushirasan		

Results of the Study

Table 4
Descriptive Statistics: Change in Mean Performance

Economic Class	Group	Height	Weight	Muscular Endurance	Flexibility	C.V. Endurance	Fat %
Elite Class	Experiment	0.45	-0.17	2.53	3.47	-0.03	0.10
	Control	0.03	0.47	-0.40	0.20	-0.01	0.01
	Total	0.24	0.15	1.07	1.83	-0.02	0.06
Middle Class	Experiment	0.29	0.17	3.13	3.33	-0.03	-0.01
	Control	0.03	0.71	0.53	0.40	0.00	-0.07
	Total	0.16	0.44	1.83	1.87	-0.01	-0.04
Slum Class	Experiment	0.35	-0.17	3.67	4.53	0.62	-0.25
	Control	0.00	0.43	0.21	0.93	-0.72	0.00
	Total	0.18	0.12	2.00	2.79	-0.03	-0.13
Total	Experiment	0.37	-0.06	3.11	3.78	0.19	-0.05
	Control	0.02	0.54	0.11	0.50	-0.23	-0.02
	Total	0.19	0.24	1.63	2.16	-0.02	-0.04

Table 5
Consolidated Inferential Statistics of Change in Performance

	Change in Height		**Change in Weight**		**Change in Muscular Endurance**	
Source	F	Sig.	F	Sig.	F	Sig.
Economic Class	1.44	0.243	1.78	0.174	**4.29***	0.017
Group	**73.67***	0.001	**18.04***	0.001	**137.15***	0.001
Economic Class * Group	1.29	0.280	0.05	0.950	1.12	0.331

Table 3A
Consolidated Inferential Statistics of Change in Performance

Dependent Variable	Change in Flexibility		Change in C.V. Endurance		Change in Body Fat %	
Source	F	Sig.	F	Sig.	F	Sig.
Economic_type	1.87	0.160	0.001	0.999	1.83	0.167
Group	**69.25***	0.001	1.716	0.194	0.16	0.686
Economic_type * Group	0.34	0.713	1.969	0.146	1.96	0.148

Table 6
Multiple Comparision : Muscular Strength

(I) Economic_type	(J) Economic_type	Mean Difference (I-J)	Std. Error	Sig.
Elite Class	Middle Class	-.77	.316	.058
	Slum Class	**-.83***	.316	.035
Middle Class	Elite Class	.77	.316	.058
	Slum Class	-.07	.316	.978
Slum Class	Elite Class	.83*	.316	.035
	Middle Class	.07	.316	.978

Results on Yoga for Health related fitness Variables

- Economic Class wise results shows that "**Slum class"** showed significant **improvement** in ***Abdominal muscles strength*** than elite class (p=0.035). However, students of **"Middle class"** and "**Elite Class**" did not show significant change (p=0.058). In case of other variables there was no significant difference in the change in mean performance.
- Group Wise it was found that experimental group showed significant inprovment in Height (F=73.67, p=0.001), Weight (F=18.04, p=0.001), Muscular Endurance (F=137.15, p=0.001) and Flexibiity (F=69.25, p=0.001). Remaning Variables like C.V. Endurance and Body Fat, group wise, there was no significant difference.

Conclusion:

This study warrants following conclusions:

- Status of abdominal muscular strength is different among the children belong to elite, middle class and slum areas. The children of slum class had superior status than elite and middle class.
- Yoga training helps to improve Height, Muscular Endurance and Flexibility while it was helpful in reduceing weight.

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Fitness and Yoga: A Challenge for Indian women

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Abstract

Fitness & Yoga is really a challenge for Indian women. Women play dual role in actual life & quality life is totally depend on health Nature also given additional responsibility of childbirth and she prepares by giving us the strength, endurance and patience to shoulder this role with a smile. A failure of support system took place when the lady of the house faces health issues. Women depressed when health issues start to disturb daily routine. Back pain, sciatica, gastric problems, and regular migraine attacks are normal disease to disturb women. Life became a burden! They can find relief by doing pranayama and yoga. .A step taken in the right direction will promise you good health for your own self and even for the family.

Key words: Nature, family, depress, disease

Introduction

India is a country where women have comparatively better status than man women in other parts of world. Women are worshiped in the names of Goddess Saraswati, Goddess Durga, Parvati, & Goddess, Kali. Women do the majority of the manual physical work that uses a lot of energy. Because of this she should be very healthy. Healthy means not only merely absence of diseases but also physically, mentally, emotionally, spiritually & socially fit to face the challenge.

Today's woman is much more than her traditional role of a housewife, a mother or a daughter. Her extended roles that foray beyond her four walls, she plays an equal role in the decisions of socio-economic and political life she leads. She is a multi-faceted, dynamic and uniquely influential part of our society and is forever striving for perfection in every aspect of life.

More than just fitness! Women should keep fit bodies, minds, and spirits. We should provide them a supportive environment for building a healthy body and a healthy community. They should have an equal opportunity to support family along with self health. Fitness, nowadays it seems that it is modern invention – something that started in the 70s with jogging and Jazzercise. If we think about physical exercise obviously the part of every women's life, their daily routine work have work cum exercise in all type of house hold work. There is a time when people wouldn't have thought of it as working out, but rather a way of life. Centuries and millennia ago, women do not have all the machines and weights and gyms that we have today, and yet they were in better shape than we are. To understand why this is, how we got to our modern fitness culture, and what we have lost along the way, it's helpful to take a look at the history of exercise.

Why Yoga ?

Yoga is a means to achieve healthy mind in a healthy body. Yoga helps to maintain a balanced physical development of body. Yoga Practical helps women in the proper regulation of her blood pressure & heart beat. Yoga activities helps in regulating & controlling th functioning of all the glands including the ductless glands. to enjoy a sound sleep, maintaining normal weight & getting increase the power of endurance & energy level. These helps in having increased immunity power &keeping her body disease free by not allowing the form fall & disease spreading material a cumulating in her body. The yogic activities not only prove as strong deterrent for the prevention of the various bodily ailments & disease.

Impact of yoga on Indian women's health

The greatest happiness for a women lies in her healthy & disease free body & mind. It is quite possible for her that in the ultra-modern society of the present age, she is suffering from the modern living style & she is paying a heavy price for it in the form of getting eviction of the various physical & Mental elements. In this situation she can be helped a lot if she tries to adopt & practice the yoga activities & therapy for to adopt for this purpose. Many for our physical & mental ailments may be

properly prevented as well as cured through the yoga. Diabetes The excessive acclamation of sugar in the blood due to malfunctioning of pancreas.

Need for healthy women

"शरिरमाद्य खलु धर्मसाधनम्" अर्थात-किसी कार्य अथवा धर्म को सिध्द करने के लिये, किसी भी लक्ष्य को प्राप्त करने के लिये सबसे पहली आवश्यकता है शरीर की (शरीर सर्वप्रथम साधना है) अत: शरीर का स्वस्थ होना परमावश्यक है? स्वास्थ्य की परिभाषा देते हुए आयुर्वेद के महान आचार्य महर्षि सुश्रुत कहते है - "समदोष: समाग्निश्च् समधातुमलक्रिय:। प्रसन्नात्मेन्द्रियमन: स्वस्थ इत्यभिधीयते।।"

The problem with most of the Indian women is they does not give much importance for their own health. She concentrates on various issues of her family member's bur not on herself. Now a day's all women are plying dual roles such as hoarer holder as well as working outside to support economically her family; to balance this multitask she needs cool & calm mind, physically fit body, emotionally strong (well-being) spiritually & intellectually developed personality. Over all she needs a balanced health which makes her a perfect women.

How to balance heath & daily routine by yoga

It takes some time to go along with habit or new routine, so be careful with yourself if you miss a day. Start the defined routine the next day. The benefits of dinacharya to your health and wellbeing are immense, so it's worth putting your time and attention on developing a nurturing balancing routine for you.

Define your day in four parts so you can mange well morning, midday, evening bed time. Plan daily routine for one week and observe yourself. Natural remedies are always helpful for balancing the mind-body. If you control your mind and body you can control any situation gracefully.

"Life is like riding a bicycle. To keep your balance, you must keep moving." ~Albert Einstein

Conclusion:

"To keep the body in good health is a duty, otherwise we shall not be able to keep our mind strong and clear". - Buddha

For Indian women to perform their multidimensional role, they should be empowered with the health & this status of health can be achieved through daily practicing of the yogasana, Pranayana, Meditation & shutkarmas which helps to promote a balanced development of physical, mental, emotional & spiritually well-being. Yogic exercises recharges the body with cosmic energy which helps to attainment of perfect equilibrium & harmony, it promotes self-heading & removes negative blocks from the mind & foxiness from the body & enhance personal power, increases self-awareness.

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Utility of Yoga Practices for the Promotion of Selected Athletic Events

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Introduction

Yoga is an ancient Indian activity. The literature reveals that regular and proper yogic practices help to solve many health problems not only yoga improve academic achievement but also improves muscular ability. Yoga is that system which is directly related with the human psycho physiology and Anatomy, yoga means the experience of oneness or unity with inner being. Yoga integrates physical poses and breathing techniques to stretch the body, breath and mind to improve endurance, strength, balance and flexibility. *Athletic ability* is an ability of an individual to participate successfully in some of the important athletic events. Here selected events, as selected, are 100 M run for speed, 12 mins run-walk for cardiovascular endurance, shot put for the strength of muscles of the upper body, and running long jump for the strength of muscles of the lower body.

Methodology

Sixty College girls (n=60) from D T Ed College, Rewa (MP) were selected for this study. The subjects' age group was ranging from 18 to 20 years. All the selected college girls were then again randomly assigned into two equal groups, viz., one experimental group (Group A; n_1= 30) and one control group (Group B; n_2 = 30). The researcher made sure that the entire subjects were ready to go through the experimental requirements of this research project. Group A received 'Yoga training, while Group B was treated as control. The design of the experiment has been planned in three phases.

- Phase – I: Pretest
- Phase – II: Training or Treatment, and
- Phase – III: Post test

Pre – Test (phase – I)

As the purpose of the study was to see the efficacy of selected yoga practices on health related fitness and athletic performance, all the selected college girls of experimental and

Control groups were exposed to standard tests to measure health related fitness and athletic performance in college girls for obtaining the pre test data.

Treatment stimulus (phase – II)

After the pre test was over, all the subjects of experimental group were exposed to eight weeks training of selected yogic practices for 1 hour daily in the morning except Sundays and holidays. The controlled subjects, although did not receive the above mentioned training, however, were kept busy with some recreational activities 1 hour daily in the morning , except Sunday and holidays, during the total period of experiment. For total period of eight weeks, a professionally qualified yoga teacher was appointed to conduct the specially designed yoga training intervention under the overall supervision of present investigator.

Table 1. Yoga training was imparted to the Experimental Group for total of Eight Weeks

ASANAS	
Bhujangasana	Pashchimatana
Ardha-shalabhasana	Ardha-matsyendrasana
Shalabhasana	Yog-mudrasan
Dhanursana	Vipritkarni
Halasana	Vakrasana
Sarvangasana	Chakrasana

PRANAYAMA	
Ujjayi	Bhastrika
KRIYAS	
Kapalbhati	

Post test (phase III)

Finally, when the treatment or training period of eight week was over, the post test on health related fitness and athletic performance was conducted for all the subject of both the groups.

Statistical procedure

As per the research design the collected data were analyzed employing with standard statistical technique's' test. Further the result have been interpreted and discussed logically to conclude this investigation by Table and graph.

Table 2 Group viz., N, Mean, Standard Deviation, Mean deference and 't' value of shot-put performance of control and Experimental group

	Group	N	Mean	Std. Deviation	Mean deference	't'	Sig. (2 tailed)	Remarks
Shot –put performance pre	1.00	30	2.2133	1.58887		-1.696	.095	p>0.05
	2.00	30	2.7500	.69324	-.5367		.098	
Shot –put performance post	1.00	30	1.9487	.65744		-3.594	.001	p<0.05
	2.00	30	3.0003	1.46150	-1.0517		.001	

1.00 = Control group

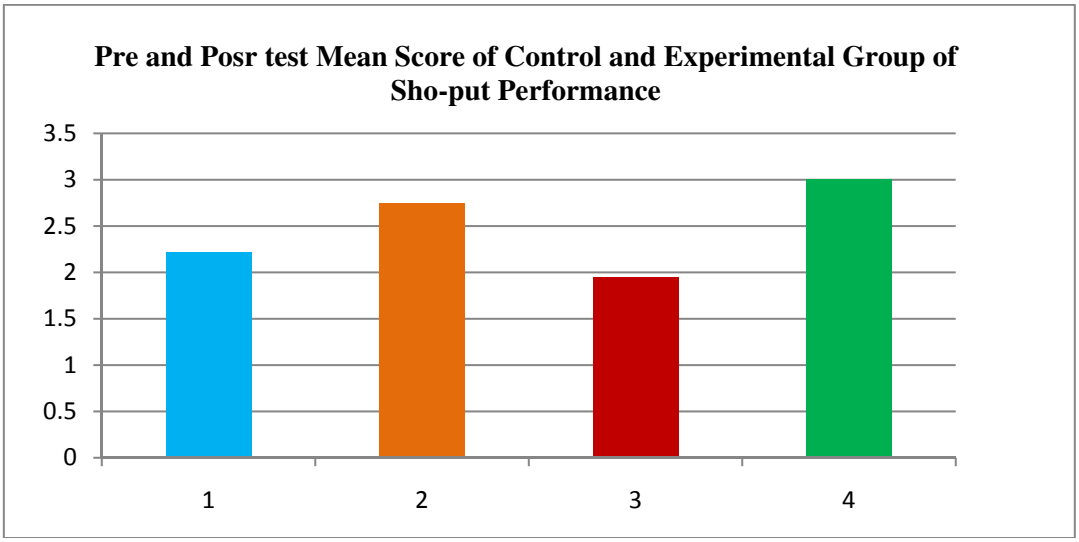
2.00 = Experimental group

Result of Shot-put performance

It is seen from the table-2, in case of pre test of shot put performance the mean scores of control and experimental group were 2.2133 (SD 1.58887) and 2.7500 (SD .69324) respectively, whereas, the mean difference was -.5367 and the 't' values of pre test was -1.696 which were not significant (p>0.05). It reflects that the mean score of pre test of Shot-put performance of control group and experimental group was doing not differ significantly. This result indicates that the pre-test means of yoga training group and Control group in Shot-put performance test were more or less similar.

But in case of post test of Shot-put performance, the mean scores of control and experimental group were 1.9487 (SD .65744) and 3.0003 (SD 1.46150) respectively, whereas, the mean difference is -1.0517 and the 't' values of post test was -3.594 which is significant (p<0.05). It reflects that the mean score of post test of Shot-put performance of control group and experimental group was differ significantly.

This result helps to interpret that the Yoga practice were effective in improving Shot-put performance of the D T Ed College, Rewa (MP). In this context the null hypothesis Ho. 1 that "There is no significant difference in mean score of Shot-put performance of control and experimental group" is rejected. This same result is also presented in following graph.



1=Pre test of Control group
2=Pre test of Experimental group
3=Post test of Control group
4=Post test of Experimental group

Graph No.-1 Pre and Post Mean score of Control and Experimental group of Shot-put Performance

Discussion

Many literature revels that yogic practices help to improve the muscular ability the result of this peace of the study is also a same result but this is related to the muscular power of the college going girl's students. The result reveals that the subject of Experimental group (Yogic practices group) could show higher score in Shot-put performance than the Control group. Thus, the mean gain in Shot put performance has increased significantly in experimental group as compared to control group. so Yogic practices warrants a statistically significant effect to increase the overall level of Shot put performance of College girls which rejects the null hypothesis There was no significant difference in mean gain score of shot-put performance between control and experimental, due to specific Yogic Practices has been rejected.

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A Comparative Study of the Mental Toughness of the Players having Parents in Transferrable Job and Non-Transferable Job

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Abstract

The purpose of the study was to understand theeffect of the transferrable job and non-transferable job of the parents on the mental toughness of the players of KendriyaVidyalaya, Katihar. Present study comprised a total of 60 male players, age ranged from 12 to 15 years. Among these, 30 male players were those having their parents in the transferrable job (players whose parents have been transferred at least twice) and the other 30 male players were those having their parents in non-transferable job. To collect the data Mental Toughness Questionnaire by Alan Goldberg (2004) was used and the scores were recorded numerically. Collected data was analyzed by using t-testat 0.05level of significanceand no significant difference was found between means of players those having their parents in the transferrable job and players those having their parents in non-transferable job.

Key words: Mental Toughness, transferable job and non-transferable job.

Introduction

In today's society, we look up to professional and amateur athletes alike. We admire them for their extraordinary physical attributes and are amazed by their ability to stretch the limits of the human body. We also revere professionals who possess superior psychomotor skills and must perform under intense pressure such as surgeons, firefighters, law enforcement officers, military personnel, performing artists and others.

However, what most people overlook is the fact that these individuals are not born with the physical prowess and mental resilience they later display. There is a tremendous amount of preparation that goes into performing at this level, and success almost always depends on both physical and mental toughness.

Mental toughness is "Having the natural or developed psychological edge that enables you to: generally, cope better than your opponents with the many demands (competition, training, lifestyle) that sport places on a performer; specifically, be more consistent and better than your opponents in remaining determined, focused, confident, and in control under pressure. There are certain moments during competition that appear to carry great psychological significance, when the momentum starts to shift in one direction or another. These situations require children to remain completely focused and calm in the face of difficult circumstances. Think about times when things have not gone quite to plan and how you reacted. The journey towards peak performance is rarely a perfectly smooth road and we learn from our mistakes- or should do. Do setbacks shake our self-belief and lower our motivation or act as a catalyst for even greater effort.

Method and Material:

The selections of subjects, procedure of collection of data and statistical technique have been described under bellow given headings.

Selection of participants:

For the purpose of study a total of 60 male players, age ranged from 12 to 15 years. Among these, 30 male players were those having their parents in the transferrable job (players whose parents have been transferred at least twice) and the other 30 male players were those having their parents in non-transferable job from KendriyaVidyalaya,Katihar. All the participants had represented Kendriya Vidyalaya, Katihar in inter school games and sport.Purposive sampling technique was adopted for the selection of subjects for the present study.

Results:

In order to compare the mean scores of the Mental Toughness between male players having their parents in the transferable job and the male players having their parents in non-transferable job t-test was appliedat 0.05 level of significance.

TABLE-1

Descriptive statistics of mental toughness between male players having their parents in the transferable job and the male players having their parents in non-transferable job.

Group Statistics

Group		N	Mean	Std. Deviation	Std. Error Mean
MT	Transferable job	30	20.1333	3.94561	.72037
	Non-Transferable job	30	18.6333	3.04544	.55602

Table-1depicts total mean, standard deviation and standard error of mean pertaining to both groups for mental toughness between male players having their parents in the transferrable job and the male players having their parents in non-transferable job.

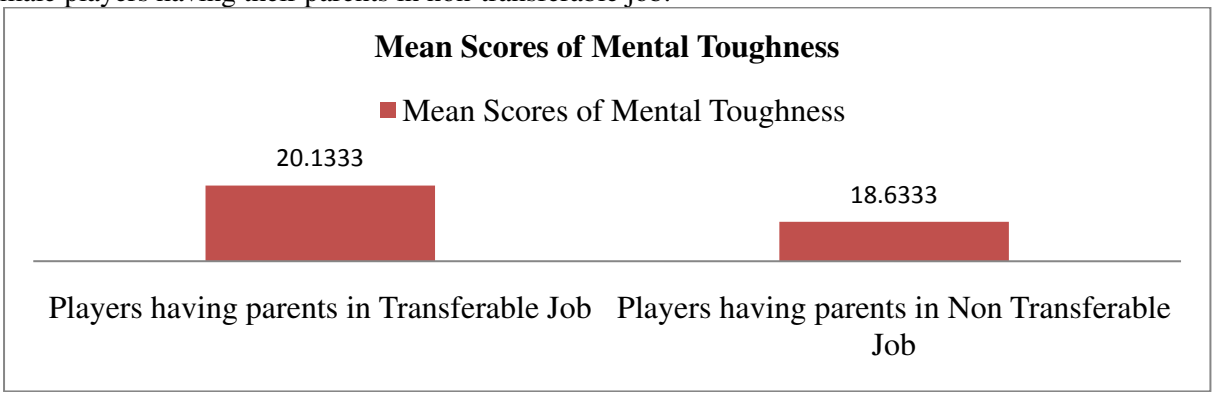

Figure-1

The geographical representation of mean scores of mental toughness between male players having their parents in the transferrable job and the male players having their parents in non-transferable job is exhibited in figure 1.

The independent t- test was applied between the mental toughness of male players having their parents in the transferrable job and the male players having their parents in non-transferable job and the result is presented in table-2.

TABLE-2

Comparison of mental toughness of the male players having their parents in the transferrable job and the male players having their parents in non-transferable job.

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
MENTAL TOUGHNESS	2.607	.112	1.648	58	.105	1.50000	.90999	-.32155	3.32155

Discussion

The above mentioned tables showed that there is no significant difference in Mental Toughness between the mean scores of male players having their parents in the transferrable job and the male players having their parents in non-transferable job. In present study t- ratio- 1.648 is not significant at 58 degree of freedom and 0.05 level of significance. It was also observed that the mean value of Mental Toughness of male players having their parents in the transferrable jobis 20.1333whichis greater than the mean value18.6333of male players having their parents in non-transferable job.

Conclusion

Within the limitation of the present study, conclusion was drawn that there was no significant difference in Mental Toughness between the mean scores of Mental Toughness between male players having their parents in the transferrable job and the male players having their parents in non-transferable job. Though the mean value of Mental Toughness of male players having their parents in the transferrable job is 20.1333which is greater than the mean value18.6333of male players having their parents in non-transferable job. In present study selected subjects are studying at present in the same school and they undergo similar routine and activities. This might be a cause for getting such results as shown above.

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Rethinking Teaching Competencies among the Teachers of the Deaf- Need of the Hour

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Introduction

Education is the only instrument to make preamble true and only means for desirable social change. Article 1 of the Declaration of Human Rights (1948), adopted by UN says, "*All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood*". Education is the knowledge of putting one's potentials to maximum use.

The quality of a nation depends upon the quality of its citizens. The quality of the citizens rests upon the quality of their education and the quality of education depends upon the competence, dedication and quality of school-teacher. It is not even dependent on brick and mortar of the classroom, but the dialogues rapport and interactions supported by deeds between the learners and the teachers, which shows the competence of the teacher.

Competency is the capability to apply or use a set of related knowledge, skills, and abilities required to successfully perform "critical work functions" or tasks in a defined work setting. Competencies often serve as the basis for skill standards that specify the level of knowledge, skills, and abilities required for success in the workplace as well as potential measurement criteria for assessing competency attainment.

Competencies are relevant to an individual's job responsibilities, roles and capabilities. They are a way to verify that a learner has in fact learned what was intended in the learning objectives. In short, objectives say what we want the learners to know and competencies say how we can be certain they know it.

Teaching Competencies:

Good teachers are those who are responsible for improving the quality of its learners. The effectiveness of a teacher mainly measures by their competency towards teaching. Competency is a crucial and integral human trait or characteristics, which significantly contributes to learning, problem solving and all round development of personality. Teaching competency is a set of abilities of teacher, to produce educational effects. Teacher is a paramount factor in Teaching Learning Process. Any educational system can flourish if two or more conditions are successfully met. The constant updating and refinement of knowledge and skill of teachers, is the first one and second one is equipping teachers trainees with appropriate competencies and positive attitude towards profession.

Competencies are specific and demonstrable characteristics or attributes inevitable for teaching professionals to create a convincing and learner friendly environment. The teacher inside and outside the classroom performs Numbers of instructional and related activities generally. The effective organization of these activities would require a certain amount of knowledge and attitudes and skills among the teachers, which is generally known as teaching competence.

In other words, teacher competence refers to "the right way of conveying units of knowledge, application and skills to students". The right way here includes knowledge of content, processes, methods and means of conveying content. Any definition of teaching competence depends on teaching in a particular setting, the culture and values held in the community. The effectiveness or ineffectiveness of teaching is closely linked to teaching competence. Competent teacher would also create classroom conditions and climate, which are conducive for student learning. Teaching competency has various dimensions such as content knowledge, instructional planning, student

motivation, presentation and communication skills, evaluation competencies and classroom management skills.

A competence is best described as 'a complex combination of knowledge, skills, understanding, values, attitudes and desire which lead to effective, embodied human action in the world, in a particular domain' (Deakin Crick, 2008). Competence is therefore distinguished from skill, which is defined as the ability to perform complex acts with ease, precision and adaptability. Teaching is, of course, much more than a 'task'.

The roles of teachers and schools are changing, and so are expectations about them. Teachers are asked to teach in increasingly multicultural classrooms, integrate students with special needs, use ICT for teaching effectively, engage inevaluation and accountability processes, and involve parents in schools (OECD,2009). Furthermore, a recent World Summit on Teaching noted that teachers need to help students acquire not only "the skills that are easiest to teach and easiest to test" but more importantly, ways of thinking (creativity, critical thinking, problem-solving, decision-making and learning); ways of working (communication and collaboration); tools for working (including information and communications technologies); and skills around citizenship, life and career and personal and social responsibility for success in modern democracies" (OECD2011).

When many teachers undertook their initial education, knowledge about learningand teaching was less developed, many teaching tools were not available andthe role of education and training was more narrowly conceived (European Commission 2012c).

So teaching staff nowadays also needs the competences to constantly innovate and adapt; this includes having critical, evidence-based attitudes, enabling them to respond to students' outcomes, new evidence from inside and outside the classroom, and professional dialogue, in order to adapt their own practices.

The range and complexity of competences required for teaching in the 21st century is so great that any one individual is unlikely to have them all, nor to have developed them all to the same high degree. Attention must therefore be focused also on the competences or attributes of an education system or of a teaching team.

As Conway et all (2009) point out, discussions about the competences needed by teachers, how they develop over time, and how they are evidenced and recorded, are bound up with wider discussions about; assumptions about learning; the purposes of education; society's expectations of, and demands on, the teacher; available resources, priorities and political will; the status of the profession; perceived external or international pressures; existing traditions and culture; and the broader societal context and environment in which teaching and teacher education occur.

According to the Passi and Lalitha (1994) the common Teaching competencies are mainly categorized as: Subject Matter Knowledge; Communication Skills; Instructional Practice; Evaluation; problem solving; professionalism. The term 'Competency' and Competence are used interchangeably (Passi and Lalitha, 1994).In the words of Singh (2002), competence is personal traits or a set of habits that leads to more effective and superior job performance. Teacher competence includes a through knowledge of the content. A teacher's competency mainly includes the strategies, understanding of student psychology and the process of learning. Synder and Drumon (1998) defined competency as a complex set of relationship between one's performances.

In the context of teaching competency means the right way of conveying units of knowledge, application and skills of students. Here, the right way includes knowledge of contents as well as processes, and methods of convening in an interesting way. Rama (1979) defines teacher competency as the ability of a teacher manifested through a set of overt teacher classroom behaviors which is a resultant of the interaction between the presage and the product variables of teaching within a social setting. The term Teaching can be defined as a set of observable teacher behaviors that facilitate or bring about pupil learning an teaching competency means an effective performance of all the observable teacher behaviors that bring about desired pupil outcomes.

Based on the micro-criteria approach to study teaching (Gage,1963), teaching is perceived as a set of teaching skills where in in a teaching skill is a set of teaching behaviors that facilitate or bring

about a specific instructional objective. In other words, teaching competence involves effective use of these various teaching skills. Bond (2000) identified 13 characteristics of effective teachers. The thirteen characteristics focus on four central themes: teaching, planning, attitude, and assessment.

Competency development must be a continuous process in the organization (Employment News, 2004).A clear understanding of the process competency development will help the organizations to training effectively. In a study done by Singh (2003), on teaching competency of primary school teachers. The study revealed that teaching competencies includes the acquisition and demonstration of the composite skills required for student teaching like introducing a lesson, fluency in questioning, probing question, explaining, pace of lesson, reinforcement, understanding child psychology, recognizing behavior, classroom management and giving assignment.

Desai and Deshpande (1996) examined the interactive effect of sources of feedback and students neurotic personality on student teacher competence. The sample of the study comprised of 50 male B. Ed. Trainees. In a paper presented by Singh and Singh (2000), on Developing Competencies through ICT in Teacher Education discussed that Teacher Education enhances the professional quality of teachers. The need of the hour is toacquaint pre-service and in-service teachers with technological advancements in hardware and software so as toincrease the competency of modern teachers.

Requirement of teaching competencies for the teachers of the deaf

The concept of competence, in teaching, thus encompasses the following features:

- it involves tacit and explicit knowledge, cognitive and practical skills, as well as dispositions (motivation, beliefs, value orientations and emotions) (Rychen & Salganik, 2003);
- it enables teachers to meet complex demands, by mobilising psycho-social resources in context, deploying them in a coherent way;
- it empowers the teacher to act professionally and appropriately in a situation (Koster & Dengerink, 2008);
- it helps ensure teachers' undertaking of tasks effectively (achieving the desired outcome) and efficiently (optimizing resources and efforts);
- it can be demonstrated to a certain level of achievement along a continuum (González & Wagenaar, 2005).

Rittenhouse (2004), in a study evaluating newly trained teachers of the deaf, found that while they were typically energetic and willing to attempt to tackle new ideas, they often lacked the skills necessary for the successful maintenance and development of individual education plans (IEPs). He also suggested that improvement of preparation programs for teachers of the deaf could be focused in the following areas:

1) improving the sign language skills of pre-service teachers of the deaf;
2) improving subject matter knowledge instead of focusing solely on language and communication; and
3) improving the English writing skills of both hearing and deaf pre-service teachers of the deaf.

The roles of teachers of the deaf today are changing rapidly, as are the classroom settings and demographics of the students in schools. Teacher of the deaf preparation programs in years gone by trained teachers primarily for one of two classroom settings: residential school placements or self contained classrooms in public schools. However, the demographics of the children in programs for the deaf have changed significantly. Demographics, coupled with the advances of modern technologies such as the cochlear implants, have prompted increasing numbers of students

1) to be served itinerantly, in rural or urban home districts;
2) to come from non-English speaking homes (Bowen, 2000);
3) to receive assistive technologies such as digital hearing aids and cochlear implants at a younger age; and
4) to function as hard of hearing individuals. Teacher preparation programs must adapt to meet the changing needs of education of the deaf (Mitchell & Karchmer, 2006). Sheetz and Martin (2008) form the framework of the endeavor in the university's distance education program.

Characteristics of Effective Teachers of the Deaf

Bond's (2000) thirteen characteristics were integrated within the six traits of master teachers of the deaf provided by Sheetz and Martin (2008). The current teacher-preparation program practices are delineated as they relate to the following six characteristics of master teachers of the deaf: employing cognitive strategies, being up-to-date, having a passion for teaching, being collaborative, having strong communication skills, and helping students become independent learners. Innovative technologies that enhance the teaching and learning experiences are discussed in each section.

Trait 1: Employing Cognitive Strategies

Bond (2000) identified having high expectations, deep representations, knowledge of content, and testing of hypothesis as characteristics of effective teachers. Research-based practices are integrated through the use of two core textbooks, used in each of their university classes in addition to other course-required texts. Research from Language and Deafness (Paul, 2009), and Deaf Studies, Language, and Education (Marschark et al., 2008) provide a foundation for content instruction and appears in the comprehensive exam that all students take at the end of their graduate studies.

Trait 2: Demonstrating Strong Communication Skills

Bond (2000) identified progress monitoring, providing feedback, and testing hypothesis as characteristics of effective teachers. Google Talk, Oovoo, Video phones etc. Maintaining the standard business day office hours and ability to interact within limited on-campus timeframes are no longer factors in online learning. Evaluations on student progress can occur virtually within an "any-time, any-place" mentality. Student assignments submitted electronically can have comments/suggestions inserted directly into items providing meaningful, lasting feedback. Instructors have the capacity to communicate simultaneously in sign, text, and through the use of multimedia such as PowerPoint. Students are able to experience firsthand the multi-layered strategies necessary for communicating in a linguistically diverse environment. Hearing students, when experiencing audio difficulties within the environment, may call-in to the course, and participate via phone. Similarly, deaf students who experience difficulties with the video communication may call-in to the course environment through a sign language relay interpreter such as ZVRS or Sorenson Relay. In order to meet the demands of such voluminous electronic communication, it is imperative both hearing and deaf students have effective communication skills

Trait 3: Being up-to-date

Bond (2000) identified using a variety of resources as a characteristic of effective teachers. Online students in the program have extensive opportunities for obtaining teaching experiences with deaf and/or hard of hearing students in schools and classrooms in their own communities. Students are expected to conduct practical and class-related projects within their own communities. Regardless of where online students are located, the deaf education program mandates that pre-service teachers follow university guidelines for student teaching and practicum experiences.

Teller and Harney (2005) surveyed supervisors of programs serving deaf and hard of hearing students and reported these practical and student teaching experiences as one of the major factors affecting teaching performance. Informed by their research, we know these experiences do affect future teacher performance, and are therefore, carefully planned. They can be individualized and local, matching the learning experience of the student with the unique teaching requirements of each setting and program. Integrating Field-Based Experiences with an Online Community of learners during these in-field experiences, the network of online peers themselves becomes an invaluable resource. As they complete field work, they share their experiences in the virtual classrooms through emails, listserves, chats, Web pages and wikis.

Trait 4: Working Collaboratively

Bond (2000) identified optimal classroom environments and problemsolving as characteristics of effective teaching. Johnson (2004) suggested that a stronger model for deaf education teacher training programs must include what he calls "a collaborative network" in which teachers construct new knowledge together. Pre-service teachers in the online classroom experience this new model of a virtual learning environment and a collaborative network with their professors and classmates.

Effective distance courses create a collaborative network that is ideal for problem-solving with other professionals (Palloff & Pratt, 2005; Palloff & Pratt, 2007). Instructors and students interact using learning tools with public and private access via academic wikis and blogs. Research indicates that in addition to online interaction, flexibility and timing, the classroom observation experience is most beneficial (Schrum, Burbank, & Capps, 2007). Wikis are available currently to graduate students on Deaf Culture, deaf Scientists, strategies for teaching speech, Web ideas for instruction, and women and deafness.

Conclusion:

The Competencies are essential for the teachers trainees as established in the previous researches above and obviously, it becomes of a great importance when we are dealing with the trainees who are working for the students with deafness. Since, the students are unable to understand what is going and saying by the teachers so that the responsibilities are on the shoulder of trainee teachers to demonstrate the things in such a manner, that the deaf students can understand the teaching portions and texts. The teachers should use different aspects and competencies to demonstrate, evaluate and present the matter upto the level of Deaf students according to their needs.

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Effect of Yogasanas on Health Related Physical Fitness of College Going Male Students

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Abstract:

Yoga means unity with the inner being and this is possible after dissolving the duality of mind and matter into the Supreme reality. An individual approaches the scientific truth in Yoga when he practises it and identifies it with the supreme soul or God., Full development in physical activity as well as in sports is essential to develop one's personality. The Study highlights the difference of health related physical fitness in College Going Male Students . For the present study the data was collected from College Going Male Students of Ghatnandur, Beed District; 100 College Going Male Students in the age group of 16-19 years were selected. Simple random sampling method was adopted. Data was collected by administrating the mentioned tests to measure the health related physical of College Going Male Students.The Yogic asanas programme was arranged in the morning only. The programme was for 6 weeks, five days a week; Saturday and Sunday was rest day. The study was limited for 100 College Going Male Students from Ghatnandur, District Beed. The age group selected was 16 to 19 years andselected health related fitness components such as Muscular Strength Muscular Endurance, Cardio Respiratory Endurance, Flexibility, and Body Mass. The study will provide the guidance to the players to know their own fitness.

Introduction

To develop one's personality, full development is essential not only in physical activity but also in sports. Through this one's physical intellectual and moral powers can be developed.

APRIL VALLEL has clearly stated "Yoga Accepts, Yoga Gives" Even the Bhagvad Gita says:- A person is said to have achieved yoga, the union with the self. When the perfectly disciplined mind gets freedom from all desires and becomes absorbed in the self alone". The art of practising yoga helps in controlling an individual's mind body and soul. One should remember that Yoga is not a religion: It is a way of living that aims towards 'A healthy mind in a healthy body. Yoga and its acceptance have undergone a sea change over the years. We should not forget that yoga originated in India thousands of years ago by our Sages and Munis. Yoga means unity with the inner being and this is possible after dissolving the duality of mind and matter into the Supreme reality. An individual approaches the scientific truth in Yoga when he practises it and identifies it with the supreme soul or God.

Yoga can bring about a great revolution. It recharges the body with cosmic energy and facilitates.

- Attainment of perfect equilibrium and harmony.
- It removes negative block from mind and tonics from the body.
- It enhances personal power.
- It increases self awareness.
- It helps in attention focus and concentration.
- It reduces stress and tension in the physical body by activating the parasympathetic nervous system.
- One can face the challenges of the modern technologically era with its hectic speed and live happily without frustration.

Significance of the Study

- The Study highlights the difference of health related physical fitness in College Going Male Students
- The result may contribute to the knowledge of the physical fitness and its importance of activity.

- Health related physical fitness of the College Going Male Students may be identified by the study.
- Parents may be motivated to send their wards for physical activities and sports.The study may provide the guidance to the players to know their own fitness.

Objectives of the Study

- To compare the mean scores of Muscular Strength of Experimental Group and Control Group
- To compare the mean scores of Muscular Endurance of Experimental Group and Control Group
- To compare the mean scores of Cardiovascular Endurance of Experimental Group and Control Group
- To compare the mean scores of Flexibility of Experimental Group and Control Group
- To compare the mean scores of Body Mass Index of Experimental Group and Control Group

Hypothesis of the Study

H01. There is no significant difference in the mean scores of Muscular Strength of Experimental Group and Control Group

H02. There is no significant difference in the mean scores of Muscular Endurance of Experimental Group and Control Group

H03. There is no significant difference in the mean scores of Cardiovascular Endurance of Experimental Group and Control Group

H04. There is no significant difference in the mean scores of Flexibility of Experimental Group and Control Group

H05. There is no significant difference in the mean scores of Body Mass Index of Experimental Group and Control Group

Delimitations

- It was delimited to make College Going Male Students.
- 100 College Going Male Students from Ghatnandur, District Beed were selected for the study.
- The age group chosen was between16 to 19 years.
- The study was further delimited to selected health related fitness components.
  A) Muscular Strength
  B) Muscular Endurance
  C) Cardio Respiratory Endurance
  D) Flexibility
  E) Body Mass Index

Materials and Methods

Purpose

The main purpose is to study & find out the effects of yogasana on health related physical fitness of College Going Male Students of Ghatnandur, District Beed. 100 students were selected for this study.

Formation of Group

The College Going Male Students were divided into two groups (50 students for Experimental Group & 50 for Control Group) on the basis of the mean performance of pre test score.

1. Experimental Group
2. Control of Group

Analysis

To determine the significant difference in the means of Health related physical fitness variables of College Going Male Students.

Index Sources of Data

For the present study the data was collected from College Going Male Students of Ghatnandur, Beed District; as they are the sources of data.

Selection Procedure

100 College Going Male Students in the age group of 16-19 years were selected. Simple random sampling method was adopted. Data was collected by administrating the mentioned tests to measure the health related physical of College Going Male Students.

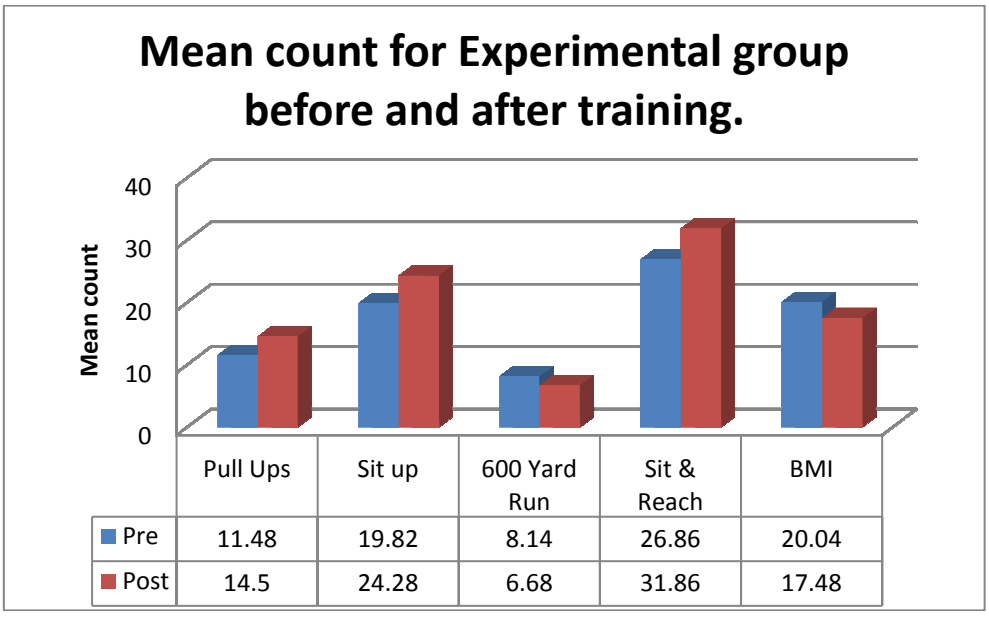
Training Pragramme

The Yogic asanas programme was arranged in the morning only. The programme was for 6 weeks, five days a week; Saturday and Sunday was rest day.

6 Weeks Training Programme

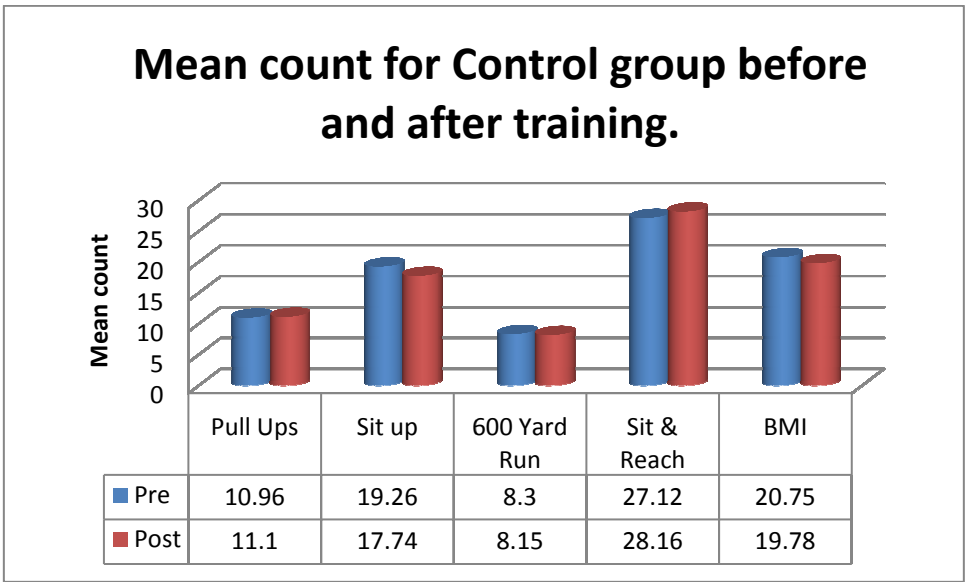
Week	Day	Asana	Duration Minutes		Total Volume
I & II Week	Monday to Friday	Sarpasana Bhujangasan Gomukhasana Tadasana	2 2 2 2		Approx. 45 Min.
III & IV Week	Monday to Friday	Dhanurasana Vakrasana Vajra Asana Padmasan Trikonasan Halasana	2 2 2 2 2 2	After Every Exercise 1 min Shavasana	Approx. 1 Hr.
V & VI Week	Monday to Friday	Balasana Chakrasana Uttanasana Sarwangasana Akarna Dhanurasana Anantasana Buddha Asana Matsyasana	2 2 2 2 2 2 2 2 2		

Analysis and Interpretation of Data:



It can be seen from the above Experimental Group Graph that:

- There is significant difference found in the mean scores of Muscular Strength of Experimental Group, where the mean score of Pre Test was 11.48 and Post Test was 14.50.
- There is significant difference found in the mean scores of Muscular Endurance of Experimental Group and Control Group, where the mean score of Pre Test was 19.82 and Post Test was 24.28.
- There is significant difference found in the mean scores of Cardiovascular Endurance of Experimental Group and Control Group, where the mean score of Pre Test was 8.14 and Post Test was 6.68.
- There is significant difference found in the mean scores of Flexibility of Experimental Group and Control Group, where the mean score of Pre Test was 26.86 and Post Test was 31.86.
- There is significant difference found in the mean scores of Body Mass Index of Experimental Group and Control Group, where the mean score of Pre Test was 20.04 and Post Test was 17.48.



It can be seen from the above Control Group Graph that:

- There is no significant difference found in the mean scores of Muscular Strength of Control Group, where the mean score of Pre Test was 10.96 and Post Test was 11.10.
- There no significant difference found in the mean scores of Muscular Endurance of Control Group and Control Group, where the mean score of Pre Test was 19.26 and Post Test was 17.74.
- There is no significant difference found in the mean scores of Cardiovascular Endurance of Control Group and Control Group, where the mean score of Pre Test was 8.30 and Post Test was 8.15.
- There is no significant difference found in the mean scores of Flexibility of Control Group and Control Group, where the mean score of Pre Test was 27.12 and Post Test was 28.16.
- There is no significant difference found in the mean scores of Body Mass Index of Control Group and Control Group, where the mean score of Pre Test was 20.75 and Post Test was 19.78.

Discussion and Conclusion:

1. There is significant improvement in readings of the test of Muscular Strength due to Yogic Practices in Experimental Group in compare to Control Group which shows no significance difference.
2. There is significant improvement in readings of the test of Muscular Endurance due to Yogic Practices in Experimental Group in compare to Control Group which shows no significance difference.

3. There is significant improvement in readings of the test of Cardiovascular Endurance due to Yogic Practices in Experimental Group in compare to Control Group which shows no significance difference.
4. There is significant improvement in readings of the test of Flexibility due to Yogic Practices in Experimental Group in compare to Control Group which shows no significance difference.
5. There is significant improvement in readings of the test of Body Mass Index due to Yogic Practices in Experimental Group in compare to Control Group which shows no significance difference.

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Yoga and Maslow's Needs Hierarchy

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Abstract

Yoga, includes physical exercises only as a foundation, and it actually facilitates encountering, examining, exploring, integrating and transcending the many levels, currents and crosscurrents of mind. It is basically a process of self-awareness, spirituality, eternal peace, and consciousness.

Introduction of Yoga & Maslow's Need Hierarchy

In recent times Yoga has been misunderstood significantly generally people believe that it is a program of physical exercises but Yoga, includes physical exercises only as a foundation, and it actually facilitates encountering, examining, exploring, integrating and transcending the many levels, currents and crosscurrents of mind. It is basically a process of self-awareness, spirituality, eternal peace, and consciousness. Abraham Maslow introduced a model of developmental psychology. This model has become very popular not only in the field of psychology, but also in management, human sciences and other social sciences. It describes five developmental stages, which are based on human *needs*. Thus, his model is known as Maslow's Needs Hierarchy. Maslow explains that the human has five levels of needs, which are build one upon the other. The completion of one stage leads to the desire for the fulfillment of next higher level.

Maslow's Needs Hierarchy

- **Physiological Needs**: These are the primary needs, which include the needs for food, water, air, and sleep. Without fulfillment of these needs the physical life itself is not possible.
- **Safety Needs**: After the fulfillment of physiological needs the other needs are for safe lifestyle and safe environment. These needs might include safe housing, financial security, job security, as well as physical, mental, and emotional safety and freedom from threats.
- **Social Needs**: When the safety needs are met the needs for belongingness, togetherness such as having family, friends, and community arise. These needs involve the giving and receiving of love, care, affection and nurturing.

- **Esteem Needs**: After social needs the needs for self-respect, achievement, and recognition by others arise. Later on Maslow explained that between Esteem needs and the need for Self-Actualization there is also the need for aesthetics and knowledge.
- **Self-Actualization**: According to Maslow the self actualization need involves in itself attainment of one's full potential as a human being living in the world, expression of justice, wisdom, benevolence, and creativity.
- **Transpersonal:** Later on Maslow added a sixth level to his Needs Hierarchy, that of Transcendence or. This was in recognition of realities that are "trans" or beyond all of the first five levels.

Four Developmental Stages of Yoga Psychology are as follows:

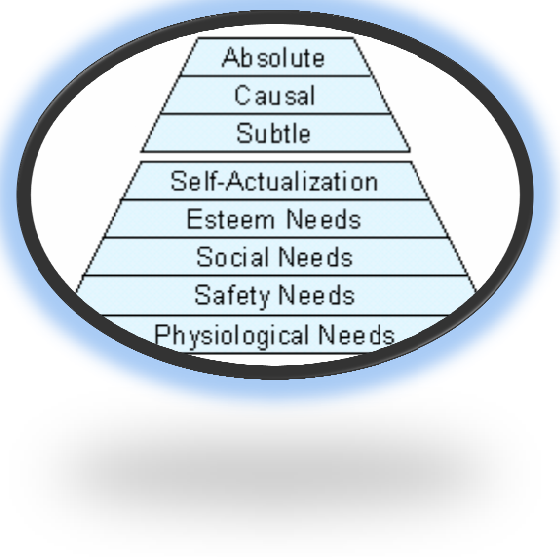
1. **Gross/Vaishvanara**: All of the five stages of Maslow's Needs Hierarchy are experienced as part of the reality of the Gross world. The deeper levels (the other three levels of Yoga Psychology) are there, as the functioning substratum.
2. **Subtle/Taijasa**: The Subtle level or stage is also there as a substratum. This level of development is commonly known in our culture as experiences of the astral, occult, or psychic planes. The experiences and skills developed in this level are part of this developmental process.
3. **Causal/Prajna**: The Causal plane is the substratum out of which the Subtle and Gross spring. It is the fountain of intuitive and *formless* knowing, deeper than subtle experiences, visions, sounds, visitations, or voices.
4: **Absolute/Turiya**: This is called the "fourth" state. Turiya is that pure consciousness, which permeates and transcends the other three stages, including the five needs of the Needs Hierarchy, which are part of the Gross. Turiya also permeates and transcends both the Subtle and Causal levels.

Needs Hierarchy and Yoga Developmental Stages

According to Yoga Psychology, there are three levels of development, i.e. Subtle, Causal and Absolute which are beyond the five primary needs. These three levels sequentially emerge as Maslow's five stages, and each of these are sought one after the other.

Fig 1.2

Needs Hierarchy and Yoga Developmental Stages



It has been proved that without fulfillment of lower level of needs the person cannot move towards fulfillment of other needs. For example, without fulfillment of physiological needs one might not be working on Social and Esteem needs on other side, one who is extensively engaged in exploring the Subtle, psychic, astral, or occult planes may have little awareness or seeking of the Causal or Absolute. Similarly, one who is working on Esteem needs and Self-Actualization needs may not yet have much interest in Maslow's Transpersonal stage, much less the Causa or Absolute stages of Yoga,

Conclusion

Maslow's Need Hierarchy and Yoga Psychology both plays a significant role in exploring and expressing the hidden talents, skills, potentials and layers of mind which assist the individual to move towards self actualization, self realization and internal peace. The four stages of Developmental Yoga Psychology are symbolically represented in OM Mantra. The OM Mantra is having three sounds A, U, and M, along with the silence that follows. OM Mantra is one of the finest way of attaining the four broad stages of Yoga Psychology.

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Yoga for Prenatal and Postnatal

Yogacharya Dhakaram : (YogaPeace), www.yogapeace.org

Yoga is the stepping-stone to a healthy motherhood

Yoga is an oriental form of ancient exercise, which tries to achieve a union between the soul and the spirit or the individual consciousness and universal consciousness. Dating back to as old as 5000 years, this form of physical exercise not only takes care of physical well being of a person but also leads to balance in life, divine bliss and control of the mind. The whole process is like a spiritual experience that relaxes the mind and the body. There are various forms of yoga and each posture is related to a specific purpose. From weight loss to good hair, there are yogic postures far greater in number than you can imagine. One of the streams of yoga is prenatal yoga meant for pregnant women.

According to many of the pregnancy myths, women should not be indulging in any form of exercise during this tender phase as it may harm the unborn child. It is absolutely false as slight exercise and especially pregnancy yoga is very necessary for the well being of the mother as well as the baby. It helps to relieve high blood pressure, sickness, leg cramps, fatigue, breathing problems and mood swings related to pregnancy. It also ensures that you do not experience a painful labor.

No wonder celebrity mothers have launched their prenatal yoga DVDs to promote healthy pregnancies. Former Miss Universe and Indian actress Lara Dutta too launched a prenatal yoga DVD guided by expert Tonia Clarke. Such DVDs attempt to make pregnancy yoga a trend among to-be-mothers so that they are aware of their well being and fitness.

Why is pregnancy yoga important? How does it help?

The chief aim of pregnancy yoga is to bring your child into the world in the smoothest way possible and ensure you and your child's good health. It is a completely safe and scientific process that has multifaceted benefits. But you should never embark on a yoga schedule alone. Contact a yoga teacher or expert to do it in the right way without harming yourself. You may also need to consult a doctor before you start them. Here are some of the ways which suggest why pregnancy yoga is so important for women.

- Pregnant women often suffer from sleeping problems. Yoga can help you to have better and undisturbed hours of long sleep.
- It is not an unknown fact that yoga in general relieves stress and anxiety. The same holds true for prenatal yoga too and absence of stress is very important during pregnancy.
- Most of the women suffer from headache, nausea, sickness and lower back pain during pregnancy. Yoga helps to reduce each of them providing a comparatively less painful and sickening pregnancy.
- Since yoga involves breathing techniques, prenatal yoga is good for those experiencing shortness of breath. It also helps in contractions during labor.
- Since yoga involves stretching certain parts of the body and moving your body to achieve certain positions, it increases the strength and flexibility of your muscles which is very important during childbirth. It also improves balance and blood circulation.
- It strengthens the pelvic muscles for healthy growth of the baby.
- Regular prenatal yoga release happy hormones called endorphins which prevents mood swings and erratic attitude and brings in positivity and energy.
- Going to a prenatal yoga class can help you to mix with other pregnant women and bond as a community.

Yoga for the first trimester

Many women are apprehensive whether yoga is safe in the first trimester as it is the most vulnerable phase and many women experience miscarriage during this phase. While some feel yoga helps during this phase, others are of the opinion that it can be avoided. Yoga during this phase is

completely safe if you are guided by an expert and permitted by your gynecologist. Deep stretching, back bending and deep twists should be avoided and certain asanas and postures should never be included in this phase. Simple breathing exercises can help to relieve stress and uneasiness during the first three months.

Yoga for the second trimester

Most experts advise women to start practicing yoga from the second trimester of pregnancy. By this time you are done with the morning sickness and tiredness and you are out of the danger zone of the first three months. This is the best time to start your prenatal yoga if you have been approved by the gynecologist. Yoga should always be practiced in loose and comfortable clothing on a yoga mat or carpet and in a calm, quiet and well ventilated environment. You may practice in a breezy room or yoga class or in your garden. Light music or chants may help in the process. Some of the asanas or yogas to try out under an expert during this phase are:

- Matsya kridasan- it improves digestion and helps in case of constipation. It also relaxes the nerves of the legs which is a great comfort during the last phase.
- Bhadrasana- this is very important for safe and smooth delivery. It also relieves all stomach related problems.
- Marjari asana- this kind of stretch pose helps to attain strength and flexibility of the spine and shoulders.
- Meru akarshasana- this kind of asana helps to strengthen the abdominal muscles and the thigh muscles.
- Palm tree pose or tadasan- standing on your toes straight with your arms above your head, palm turned upwards and fingers interlocked can help you to achieve correct physical and mental balance and clear congestion of the spine.
- Vajrasana- it improves digestion and related problems like acidity experienced in pregnancy. It increases blood circulation and blood flow in the pelvic area. It strengthens the pelvic muscles which is very important during labor.
- Hasta utthasana- stiffness of the body is often experienced during pregnancy by many women. This helps to reduce stiffness of upper section and back. It also improves breathing and blood circulation in the body.
- Seated twist- Bending one knee over the other while in a seated pose and twisting the torso to a side helps to stretch the spine and strengthen the muscles while increasing flexibility.
- Kati Chakrasana- This waist rotating pose while standing up with legs apart helps to remove a feeling of tightness and heaviness felt during pregnancy. It also relieves tension.

Yoga for the last trimester

Yoga during the last three months is very beneficial for the well being of both the mother and the child and should be done regularly under an expert for smooth delivery and less painful labor. As long as your body feels comfortable you should continue with the asanas though you need to be a bit more careful during this phase. Here are some of the asanas or yoga postures that are beneficial for this last phase before you give birth to a healthy child.

- Ardha titali asana and poorna titali asana- The half butterfly pose and the full butterfly pose are excellent to loosen the hip and tighten the knee joints to ensure faster delivery. It also helps to ease leg pain and cramps during this phase. However take care not to force yourself.
- Supta udarakarshanasana- It is the sleeping abdominal stretch pose. From relieving stomach problems like constipation to lower back pain and spine problems, this is the best pose. It even reduces stiffness of the spine.
- Shoulder rotation- single arm and double arm shoulder rotation as if drawing a circle with your elbow along with inhaling and exhaling improves blood circulation and flexibility. It also encourages good breathing.

Results of pregnancy yoga

It has been seen in studies that women who practice yoga during pregnancy are benefitted in many ways than women who do not. It provides comfort to the mother and facilitates smooth delivery. It has been seen in studies that group of women who have engaged in yoga have had approximately 2 hours shorter first stage of labor than the group of women who have not done yoga. Many women have admitted that the breathing and exhalation involved in yoga classes have helped them to get rid of that tightness many women feel during pregnancy. In a study involving 335 women at the Gunasheela Surgical and Maternity Hospital in Bangalore, India to know the effects of yoga on pregnancy, the following results were seen:

- *Among 169 women in the yoga group and 166 women in the control group preterm labor was lower in the yoga group.*
- The number of babies with greater birth weight was found in the group of women in the yoga group.
- Complications like Intra Uterine Growth Retardation and Pregnancy Induced Hypertension was very less in case of women in the yoga group.
- No adverse effects of yoga were seen.

Thus it can be safely concluded that prenatal yoga is beneficial for healthy mental and physical growth during pregnancy, it reduces complications, preterm labor, painful labor and increases body weight of baby. Proper yoga training under medical guidance is the best way to stay fit during the crucial nine months of pregnancy.

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To Assess the Effectiveness of Buteyko Breathing Technique on Respiratory Pattern among 3 to 12 years Children with Respiratory Diseases

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ABSTRACT

This study was carried out to reduce the episodes respiratory attacks and to manage respiratory emergencies by the use of non pharmacological interventions like Buteyko breathing technique among the children of 3 to 12 years of age group those who are suffering from different types of respiratory diseases, this study will also improve the level of understanding of children as well as of the family members to manage these condition initially at home so that the anxiety level of the parents will be reduced, along with reduction in mortality and morbidity rate of this age group children.

PROBLEM STATEMENT

"A Pre experimental study to assess the effectiveness of Buteyko breathing technique on respiratory pattern among 3 to 12 years children with respiratory diseases in selected pediatric units at Indore**".**

OBJECTIVES

- To assess the respiratory pattern of 3 to 12 years children with respiratory disease.
- To assess the effect of Buteyko breathing technique among 3 to 12 years children with respiratory disease.
- To find out the association between pre and post respiratory pattern with selected demographic variables.

HYPOTHESIS

- **RH1**:- There will be significant difference between mean pretest and mean posttest scores of breathing parameters among 3 to 12 years children.
- **RH2**:-There will be significant association between pre test and post test scores of respiratory pattern with selected demographic variable.

METHODOLOGY

Pre experimental one group pre-test post-test design used, An evaluatory observational approach was used in this study to find out the effectiveness of Buteyko breathing technique on the children suffering from respiratory diseases.

An observational approach with one group pre-test post-test design was used in this study. The sample consisting of 100 children those who are admitted in paediatric units. They were chosen by non probability convenient sampling technique. The study was conducted at SAIMS hospital and CNBC hospital of Indore city. The data was collected prior and after that Buteyko breathing technique were administered to the children.

The data was collected by the help of demographic variables and observational checklist.

Demographic variables consists of

1) Age
2) Gender
3) Educational status of child
4) Family income
5) Job status of father and mother
6) Any respiratory disease after birth
7) Present days of hospitalization of child
8) Educational status of father and mother
9) Order of child in family
10) Type of family

11) Family history of any respiratory disease

Observational checklist contains

Statements of respiratory parameter

1. Breathing type
2. Breathing sound
3. Breath depth
4. Breathing Rhythm
5. Heart rate

RESULTS

The data was analyzed by descriptive and inferential statistics in the conclusion it can be clearly scan that the "t" value was 62.209 and the p value was < 0.05, which clearly shows that Buteyko breathing exercises were very effective in improving the respiratory problems of these children. It is also seen that there is a significant difference between mean pre-test and post-test scores of breathing parameters among 3 to 12 years children at a p value of < 0.05 is being accepted.

INTERPRETATION AND CONCLUSION

Findings of the study showed that the Buteyko breathing technique was found to be an effective method to promote the respiratory pattern of the children those who are suffering from respiratory diseases. It was well appreciated and accepted by the children and the family members.

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To Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Risk Factors of Anorexia Nervosa and its Impact on Health Status among the Adolescent Girls in selected Private Schools.

Mr. Manoj Swarnkar : Research Scholar, Shri JJT University, Rajasthan

ABSTRACT

The main purpose of this study was to identify the knowledge levels of adolescent girls regarding risk factors of anorexia nervosa and its impact on health status.Conducted study to assess the risk factors of anorexia and found Body size overestimation is a fundamental feature of anorexia nervosa . The extent or even existence of body size overestimation in anorexia nervosa is controversial. The most recent review found that only half the studies reported overestimation of body size in individuals diagnosed with anorexia nervosa. The remaining studies found no overestimation or in some instances underestimation. The discrepancy in these findings has been attributed to the wide variety of assessment techniques that are used, including many with questionable psychometric properties.

PROBLEM STATEMENT

"A study to evaluate the effectiveness of structured teaching programme on knowledge regarding risk factors of anorexia nervosa and its impact on health status among the adolescent girls in selected private schools at Moradabad Dist, U.P, India."

OBJECTIVES OF THIS STUDY

1. To assess the knowledge of adolescent girls regarding risk factors of anorexia nervosa and its impact on health status.
2. To evaluate the effectiveness of structured teaching programme on knowledge regarding risk factors of anorexia nervosa and its impact on health status among the adolescent girls.
3. To find out the association between knowledge score of pre test and post test with the selected demographic variables.

HYPOTHESES:

H_1 - The structured teaching programme will be effective in changing the knowledge levels regarding risk factors of anorexia nervosa and its impact on health status among the adolescent girls.

H_2 -There will be a significant association between the knowledge scores with selected demographic variables.

MATERIAL AND METHOD

A quantitative research approach was used &the research design adopted for the present study was pre-experimental (one group pre-test – post-test) design. The target population for the study was adolescent girls studying in schools located at Moradabad district U.P, India. & the accessible population were adolescent girls in R.S.D academy school at Moradabad U.P, India. The sample size was 60. Sampling technique used for this study was non probability sampling technique adapting purposive sampling type. The planed teaching program was developed in english after extensive review of literature and expert opinion. The structured knowledge questionnaire was prepared to assess the knowledge regarding risk factors of anorexia nervosa and its impact on health status among adolescent girls. Data analysis was done by using both descriptive and inferential statistics on the basis of objectives and hypothesis of study and to compute data a master coding sheet was prepared. The study hypotheses (H_1& H_2) were tested by using paired't' test & chi-square analysis respectively.

The data was analysed by using 6 demographic variables and structured knowledge questioner which contains 15

Demographic variables.

1- Age
2- Education status of adolescent girls
3- Parental educational status of mother and father
4- Type of family
5- Parent occupation
6- Family income per month

Structured knowledge questioner which contains 15

1) Anorexia nervosa is an eating disorder.
2) Loss of appetite is common anorexia nervosa.
3) Anorexia nervosa is a good indicator for bad health
4) Extreme weight loss is a sign of anorexia nervosa.
5) ''Being thin'' appearance is a sign of anorexia nervosa.
6) Refusal to eat is a sign of emotional and behaviour anorexia nervosa.
7) Depressed mood is a sign of behavioural anorexia nervosa
8) Emotional disturbance may lead to anorexia nervosa.
9) Modern western culture is a prime cause for secondary to anorexia nervosa.
10) Anorexia nervosa is a more common among adolescent girls and early adult women.
11) Media like TV and fashion magazine are influencing a girl to be thinner.
12) Death and anaemia can occur is anorexia nervosa.
13) Absence of menstruation is a complication of anorexia nervosa.
14) Anorexia nervosa may lead to high susceptible for fracture.
15) Anorexia nervosa can lead to increase the risk of gastrointestinal problem like constipation, nausea.

RESULT

The knowledge levels among adolescent girls was moderate with 81.67%, inadequate with 11.67%, and it was adequate only in 6.67% before the implementation of structured teaching programme. The levels of knowledge was changed as that adequate with 96.67% and it was moderate with 3.33% after the implementation of structured teaching programme. The mean of knowledge levels in the pre-test was 7.8% and in post-test was 12.48 % respectively.

CONCLUSION

The study finding expressed that most of the adolescent girls had moderate knowledge and inadequate knowledge in pre-test. After giving structured teaching programme majority of adolescent girls gained knowledge & their levels may improved from inadequate to adequate levels. The research study supports that structured teaching programme on knowledge regarding risk factors of anorexia nervosa and its impact on health status helps the adolescent girls to improve their knowledge.

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To Assess the Effect of immediate Breast Feeding without Intramuscular Oxytocin during Normal Vaginal Delivery in Terms of Duration of Placental Separation and Immediate Blood Loss among women who are Admitted in Labor Room

Ms. Mansi Choudhary : Research Scholar, Shri JJT University, Rajasthan

ABSTRACT

This study was carried out to find out the effectiveness of immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among women. The goal of maternity care is a healthy pregnancy with a physically safe and emotionally satisfying outcome for mother, infant & family. Consistent health supervision and surveillance are of utmost importance in achieving this outcome. The aim of maternal and child health is to ensure that throughout pregnancy, labor and puerperium the mother should have a good health and that every pregnancy may culminate in a healthy mother and healthy baby. The introduction of new non pharmacological interventions in intranatal period is important to prevent post partum complications that inturn helps in the reduction of maternal mortality and morbidity rates.

PROBLEM STATEMENT

"An experimental study to assess the effect of immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among women who are admitted in labor room of selected hospitals at Indore."

OBJECTIVES

- To assess the effect of immediate breast feeding without intramuscular Oxytocin on duration of placental separation in experimental and control group.
- To assess the effect of immediate breast feeding without intramuscular Oxytocin on immediate blood loss in experimental and control group.
- To compare the effect of immediate breast feeding without intramuscular Oxytocin on duration of placental separation and immediate blood loss.
- To assess the association between duration of placental separation and immediate blood loss and selected demographic variable.

HYPOTHESIS

- **RH1**:- There will be significant difference between duration of placental separation and immediate blood loss in experimental group and control group.
- **RH2**:-There will be significant association between duration of placental separation and immediate blood loss in experimental group and control group with selected demographic variable.

METHODOLOGY

True experimental design is used in this research i.e (post test only control group design), An experimental research approach was used to find out the effect of immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among intranatal women. The sample consisting of 60 intranatal mothers are admitted in labour room.

They were chosen by random sampling technique. The study was conducted in SAIMS hospital and dolphin hospitals at the Indore city.

In the study 6 demographic variables were used for collecting base line data i.e Age, gravida, para, nature of case, educational status and socio economic status.

Section B: Assessment criteria**/** intranatal observation schedule

It consists of observation schedule of obstetrical factors, which would be assessed at the time of intervention. It consisted of 4 items.

- **Delivery record**: It is the record to assess the progress of labor.
- **Delivery of the baby**: To assess the duration of second stage of labor and the time of initiation of immediate breast feeding without intramuscular Oxytocin i.e., as soon as baby born. The baby is put on mother abdomen for breast feeding only in experimental group.
- **Delivery of placenta and membrane:** It is to assess the duration of placental separation in third stage of labor.
- **Blood loss:** It is to assess the blood loss during third stage of labor.

Steps followed in the procedure for experimental group is as follows:

Step 1:- The swabs, drapes, sponges were weighted before using and its weight was noted.

Step 2:- Soon after the delivery the baby was placed on mother abdomen for breast feeding and mackintosh under buttock was changed and the weighted swabs, drapes and sponges was used for further management.

Step 3:- As soon as baby starts sucking the sign of placental separation appears (i.e., the uterus becomes globular in shape and firm, uterus rises in the abdomen, the umbilical cord descends three (3) inches or more further out of the vagina and sudden gush of blood appears) and the placenta delivers without any manipulation.

Step 4:- The duration of placental separation (Third stage of labor) was noted by using stopwatch (in min)

Step 5:- The blood loss was measured by weighing the sponges, drapes and swabs was calculated by direct weight converting 1 g is equals to 1 ml. The amount of blood loss was calculated in ml.

RESULTS

The data was analyzed by descriptive and inferential statistics. The study shows that there is a significant effectiveness of immediate breast feeding on without intramuscular oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss. Where the t-value is 6.66 ($p<0.001$) for time difference between birth and delivery of placenta, 5.53 ($p<0.001$) for blood loss before delivery of placenta, 5.30 ($p<0.001$) for blood loss during delivery of placenta, 9.10 ($p<0.001$) for blood loss after delivery of placenta, 13.07 ($p<0.001$) for total blood loss.

INTERPRETATION AND CONCLUSION

The study results concluded that immediate breast feeding is found to be effective in reduction of duration of placental separation and blood loss. These findings have implications for postnatal care as these women may require greater support, education and assistance in initiating and sustaining breastfeeding. In particular, enabling the opportunity for the newborn to suckle as soon as practice should be encouraged.

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Yoga in the Present Scenario

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"Yoga is not a narration from the past. It is the most precious inheritance in the present life."

---- Sawami Styanand Saraswati

ABSTRACT:

The motive of the studied research is to describe the importance of yoga. In modern life as well as present time yoga is among the most discussed topic.

Every section of the society has taken good interest in the practice and studies including overall field of yoga. Yoga has become very much comprehensive in the modern time because people from different sections are presenting various ideas and are taking keen interest in the much talked about field of yoga. During the last years the form of yoga has become modernized or global. It has become a utility for the society or the group of people from personal accustom (as per Indian culture) and yoga is also turning to scientific methodologies with its basic values of spirituality.

The most important reason behind modernization of yoga or scientific yoga is stress, competition, lack of peace, lack of patience with result to psycho somatic disorder in people in certain times, yoga protects the society and the people from various physical and mental illness. Yoga also helps to reunite us with our moral values. The first two steps(i.e. yama, niyam) of Ashtang Marg as given by Maharshi Patanjali will guide us in our overall development as a human being, which will ultimately develop the feeling of love, care and empathy in the society. Yoga is the only weapon and in every way is capable to remove every human deficiency.

It gives the power to control our karmedriyan's and gyanedriyan's as well as required behavior of humans and chastens them. It also helps to remove the external elements which disturb the mental balance of an individual and at last it takes us to the ultimate goal which is enlightenment or moksh. Yoga gives physical and mental peace to the common man as well as developed personal, ethical, mental qualities to face the complex situations of life patiently and boosts up our morale.

So, in the present scenario yoga is helpful to establish a innovative life and is the only option which impacts such life. Such lifestyle in which yoga makes us aware about the internal and external beauty of human life.

Yoga is the only golden path which takes us towards satyam, shivam and sundram on which we will be filled up with happiness.

Intoduction:

Yoga is the conventional philosophy which is being accepted for different purposes globally. Yoga has been promoted and expanded a lot in last 10-15 years. At the starting point, yoga was not meant idol for the materialistic as well as normal human being, but slowly the situation cleared up that in today's competitive, stressful, restless environment yoga is required to live a healthy and peaceful life which will ultimately help in self-introspection. We have also seen that people from different parts of the globe coming to India with devotion to get deep knowledge and more awareness relating to yoga in our country. Today, the requirement of yoga teachers, doctors, therapists is felt in the society. Different yoga institutions have been established. Modern science has also included yoga in the national and international conferences. Most importantly the results of yoga is being presented in the fields of psychology, physical education etc. As of today yoga is being discussed in the departments of physics(material science), chemistry. Doctors also prescribe yoga asans and different pranayams specially for mental illness to their patients. Yoga has been changed from chapters to fully trained consultants or doctors.

Requirement of Yoga is Indian Lifestyle:

As we look back towards the past of the Indian culture, we have misconcepted the meaning of happy life, we think that adaptation of new technology or materialistic equipments are the source of

happiness in human life, but this is just a myth. Love, health, peace and happiness beings true satisfaction and such a bliss which cannot be described in words. The aura of yoga practitioners communicates love, affection, happiness, purity and brightness. The western countries have all the new technologies, modern equipments, better infrastructure and other materialistic objects to make them happy but what is the reason behind their inclination towards yoga? People are inclinating towards yoga to get peaceful soul and a clear vision towards life and in today's scenario people from different countries are adapting a lifestyle which includes yoga and are getting more benefits as compared to Indian society. Lifestyle is dependent on diet and dalliance. Yoga should be given a prominent position in our day to day activities and behavior. A person doing yoga practice will always see every human equally which would give him extreme mental peace, bliss and happiness. Yoga has all the qualities and capabilities to provide an individual with physical, mental, ethical and spiritual stretch out. Therefore at present, yoga is extremely essential for happy and peaceful life because our lifestyle is becoming very depressing and unrestful. It's vary reason is that we are creating a competitive and stressful environment on the name of development and modernization. We are only focusing on one or two aspect of human life critically which is not helping in an overall development and is the basic reason behind every suffering of humanity.

The five karm path of life are- physical, mental, ethical, spiritual and social. If a person does not focus on each and every aspect equally he will not be able to conquer fear, sadness and depression. Yoga is only science which develops an individual by focusing on each and every aspect of human existence and gives them recognition, happiness and health to the maximum.

Why Yoga in Modern Life?

Yoga is a disciplined dimension therefore; every person who wants a yogic life should get discipline lifestyle. Should fix the timings of food and going out in the society, only then a person can think of becoming a yoga practitioner. Yoga practice is not about single day it requires regular practice and proper dedication which would ultimately give great results to the practitioner.

In all the four aspects of human life, for the development of physical aspects mithaar, asans, shathkarm, pranayams, vocal practice and brahamacharya are very much essential. Their regular practice makes a person healthy, beautiful, flexible and full of energy. For mental peace a practitioner should follow yama, niyam and should also practice pranayama however pratiyahaar, dharna and dhyana also have special importance. It removes the restless nature of the mind with regular practice. The concentration level of the mind increases and the soul gets stable; life gets distressful and gets the feeling of compassion each and every movement of life. Therefore, why practicing dyana positive thoughts in our mind stay for a long term which creates a undefined positive energy within. If the ethical and social life if disheveled, it ultimately becomes the reason for extreme sadness. By the practice of yama and niyama people can solve social and ethical problems of the society.

In the absence of spiritual development a human life is not auspicious. Every individual should attempt for spiritual development. Worshiping God, self-introspection is helpful in such cause. Yoga joins a person with undefined power of universe and the person gets a deeper realization of the soul.

By yoga practice, the practitioner gets to know that satvagud is rising in the soul with the deficienty of rajogun and tamogun.

Present Perspective Towards Yoga:

The base of yoga is spirituality. In spirituality yoga means connection of atma and parmatma. Yoga is also known as a situation of silence. Yoga karmashu kaushalam, yoga is Samadhi, yoga is equality of prana and atma. Yoga is more than spirituality in such different views:

1 Yoga is used as a tool to remove mental stress.
2 Utilisation of yoga as a physical medicine.
3 Use of yoga to solve mental illness.
4 Use of yoga in physical education and physical development.

In such a way, yoga can be used in the fields of physical and mental science in today's environment. Therefore the objective of most of the scientific researches is to find the effects on body

and medical changes by yoga practice. Most of researches have been held to notice the endocrinological, metabolic, neurophysiological and phycological effects on the physical body with that researches have been done to study the effects of yoga on behavior and physical capability of an individual. The statistics of such research provides us that yoga is being used in different areas of medical field. Latest researches on yoga make sure the practice of yoga asans, pranayams, kriyas, mudras and dhyana have comprehensive effects on the human body and provides relief in spondlytis, acidity etc. Many of the diseases such as heart disease, high BP, constipation, asthma, and diabetes can be controlled.

Conclusion:

In such a way we see that in the present lifestyle is full of stress and struggle yoga is the only prominent way which can leave to happiness and accomplishment in an individual's life. So, we need to practice yoga accustoms as described regularly.

Yoga is the only Shatra and Shastra which touches each and every aspect of life. it removes all the external objects which disturb the mental balance and takes us to the end goal which is self-introspection and salvation(moksh). In such a way every individual can connect his life with yoga for mental, physical, expressive purity which will turn every human into a super human.

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Osteoarthritis of Knees: A Study of Effective Yogatherapy with Life Style Modification

Dr. Bandre B K: Ph.D., D. Lit

Introduction:

Osteoarthritis is a global problem of any age group and worldwide prevalence is 16 to 18 percentage.

In India male and female are 10 to 12 percentage of the total population. It is more percentage found in cold countries. Men and women are equally effected with above said problem. Women are more prone after menopoaus.

Inclusion criteria:

Forty eight patients of known for osteoarthritis were selected having knees inflammation, pain while climbing, and walking, stiffness in one or both knees also poor walking ability.

Exclusive criteria:

No entry was given patients having coplit degeneration of cartilage, total diffusion of knees and cases of knees replacement.

Material and method:

Number of patients for above study were 48 and their average age 48 and average weight was 65 kg.

Design of the study:

Two groups were pre post design

Carried out

1. yoga group
2. control group

Yoga group was pre assessment was 15 min yoga and lifestyle changes were explainned in the form of keens to be kept straight with raping compressed bandage around the knees every night for three month with normal diet

Control group was not informed about lifestyle Chang but same yoga practices were given for same time.

Intervention of Yoga:

Limbering of the knees,

Contraceptive muscles exercises for 50 reps

Rotation of tibia's bones

Flexion and rotation on prone position

Akpaduttitasan each leg five reps

One leg cycling ten reps forward and backward

Step up exercise

Life style modification:

Correction of wrong sleeping and surfing positions To keep the knees strate with raping compression bandage during night to get repaired cartilage during night.

Control group was not informed about life style modification only above yoga practices wear given to them.

Variables :

Knees pain. Movement ,Inflimation, walking ability, stiffness

Results:

It is rewheleed by the study that in three months of direction pain of knees by eight Percent,movenent got improved by seventy percentage Total inflamation was disappeared,walking ability improved to normal,no stuffiness left by asking and on physical examination,by showing new

X-ray.

Conclusion:

After three month of yoga based practices results recorded by interview of patients and reading of post study X-ray.

With lifestyle modification yoga group was having no pain and stiffness on walking and climbing.

Control group patients were feeling slightly 20 to 30 percentage less pain in both knees but stiffness was experienced by them.

Without life style changing, yoga practices will not be helpful to cure total. Yoga will not help them who have developed this problem by bending their legs during sleep at night.This position of sleeping would not allow to repair cartilage because blood circulation is poor when legs are bending while sleeping.

* * *

Morphological and Personal Characteristics of Different Aged Football Players

Vandana Singh : Bihar

ABSTRACT

Objectives

The primary objective of this study was to morphological and personal characteristics of aged group Football players.

Methods

The data was collected through respondents in the form of Questionnaires from 500 football players of different Academies, Clubs, States and Universities affiliated to all India football federation separately , investigator contacting footballers personally and some cases at the venue of Inter-varsity, State tournaments. In collecting the data, the researcher Follow to ethical guidelines, principles, and standards for studies conducted with human beings. The information of injuries were collected from 500 football players . The aged group of the football players from14- to 30 and divided into three group are as 14-30, 14-21 and 22 30.

Results

The result reveals that the most of the football players have participating in cricket, hockey volleyball and basketball in any sporting activity other than football more than two hours a week. 22-28 aged group football players spent more time in training and warm up.

INTRODUCTION

Football is an enjoyable and social sport than can be played from childhood to old age, either at a recreational level or as competitive sports. Davodw (1996). Football, soccer, basketball, cricket, volleyball, skiing, tennis as well as contact sports are demands of psychological states

Today sport is considered as the most important factor for around development. Sports is also linked with the image of country and national pride. Everybody accepts the importance of sports as a base for health of body and mind. It is very important to exercise the mind and body together.Present era is the era of competition in every field to large extent in games and sports. While talking about those games which are played for long times lime Hockey, Football, Volleyball etc. require efficient skill as well as speed, strength, endurance and stamina till end of the game. It is often seen that lack of these capacities in player's result in losing the game. Except these capacities players have to possess efficient techniques and tactics. Games are the necessity of spiritual and moral renovation of the society. As well all know that India is a country of various caste and creeds. In order to achieve higher degree of unity in diversity, sports play a major role in bringing all together under the feeling of oneness. Through games when the traits of co-operation, belongingness, love, affection, attachment develop strongly in players, then automatically we march towards national integration. Various matches among different states bring the people players of different caste and religion close to each other. They not only learn the brotherhood but also gain knowledge of a number of good values of all the religion which givens them a good moral character. They love and respect other's religions also as they respect their own. They treat all human being equally. Better world is a place and atmosphere of peace for all people. Therefore, all organization at national and international level are working hand to hand to make this world fit for living, with amity and tranquility and use sports as one of the medium for spreading this gospel.

METHODS

Total 500 football players from different states ,districts and varsity were selected as sample size of the study. The age also will be categorized in two groups are as (14-30) (14-21),and (22-30). The method of sample was purposive –A non-random method of sampling design for football players with a specific purpose. The study depends mainly on primary source of data. The data was collected through respondents in the form of Questionnaires from 500 football players of different Academies,

Clubs, States and Universities affiliated to all India football federation separately , investigator contacting footballers personally and some cases at the venue of Inter-varsity, State tournaments. In collecting the data, the researcher Follow to ethical guidelines, principles, and standards for studies conducted with human beings .Instructions was given to the footballers before filling these questionnaires by the researcher.

Demographic information:

The data was collected through respondents in the form of different descriptive tests. The demographic information about, age, height, weight etc. was obtained before seeking responses..

Procedure of the test:-

The modified questionnaires were given to football players personally and some cases contacting footballers at the venue of State, University, and National tournament held at different places. Instructions were given to the footballers before filling these questionnaires by the researcher, football coach and football experts. For the present study, self-made questionnaires for assessing Psychological experience of football players were utilized the test -retest reliability was found out 0.84 by the researcher. The collected data was analyzed as a whole and fragments .The data was checked for accuracy and completeness and was coded and putup into the SPSS Descriptive statistics for all studied variables, percentage, was considered statistically technique throughout the study.

RESULT AND DISCUSSION

Table – 1

Mean Scores and Standard Deviations of selected components of the Football players

Sr. No.	Components	Means Scores	Standard Deviations
1.	Age (Year)	22.30	8.28
2.	Weight (Kg)	68.35	17.40
3.	Height (cm)	170.33	58.90
4.	Training (days/week)	04.60	01.76
5.	Training duration (hours)	2.45	0.50
6.	Warm up (minutes)	10.10	3.33
7.	Competition in one year	5.88	2.09

Table-1, shows that the mean scores and standard deviations of the selected components of the football players.

Table – 1.1

Morphological characteristics of selected components of the 14-21 age group Football players

Sr. No.	Components	Means Scores	Standard Deviations
1.	Age (Year)	18.45	5.20
2.	Weight (Kg)	65.66	15.42
3.	Height (cm)	168.30	57.95
4.	Training (days/week)	04.22	01.43
5.	Training duration (hours)	2.50	0.54
6.	Warm up (minutes)	10.00	3.21
7.	Competition in one year	5.88	2.09

Table-1.1, shows that the mean scores and standard deviations of the selected components of the football players.

Table – 1.2
Morphological Characteristic of selected components of the 22-30 age groups Football players.

Sr. No.	Components	Means Scores	Standard Deviations
1.	Age (Year)	24.32	8.66
2.	Weight (Kg)	70.23	17.99
3.	Height (cm)	171.30	58.95
4.	Training (days/week)	04.65	01.77
5.	Training duration (hours)	2.47	0.51
6.	Warm up (minutes)	10.18	3.43
7.	Competition in one year	6.43	2.17

Table-1.2, shows that the Morphological Characteristics of selected components of the 22-30 age group Football players.

Table 2.
Participating in any Sporting activity other than football more than two hours a week among football players

Sr. No.	Sports	Football players (%)
1.	Cricket	23
2.	Volleyball	14
3.	Basketball	10
4.	Hockey	16
5.	Swimming	07
6.	Kho-Kho	10
7.	Kabaddi	08
8.	Athletics	18
9.	Others	11

Table-2, Shows that total 107 football players were participated in any sporting activity other than football more than two hours a week;

Table 2.1
Participating other Sporting activity other than football more than two hours a week among age group football players.

Sr. No.	Sports	Footballers Age(14-21)	Footballers Age(22-30)
1.	Cricket	10	13
2.	Volleyball	06	08
3.	Basketball	06	04
4.	Hockey	08	08
5.	Swimming	03	04
6.	Kho-Kho	07	03
7.	Kabaddi	04	04
8.	Athletics	11	07
9.	Others	07	04

Table-2.1 Shows that total 62 age group (14-21) football players were participated in any sporting activity other than football more than two hours a week;

Discussion

The primary objective of this study was to **morphological and personal characteristics of aged group Football players**.

The mean (S.Ds.) age of football players was 22.30 (8.20) years, mean score (S.Ds.) weight was 68.35 (17.40) Kg., mean score (S.Ds.) height was 170.33 (58.90) cm., their training mean score (S.Ds.) was 4.60 (1.76) days, their training duration mean score (S.Ds.) was 2.45 (.50) hours, their warm up mean score (S.Ds.) was 10.10 (3.33) minutes and competition mean score (S.Ds.) was 5.88 (2.09) in one year.

In addition, the mean Score (S.Ds.) age of Age group (14-21)football players was 18.45 (5.20) years, mean score (S.Ds.) weight was 65.66 (15) Kg.,mean score (S.Ds.) height was 170.33 (58.90) cm., their training mean score (S.Ds.) was 4.60 (1.76) days, their training duration mean score (S.Ds.) was 2.45 (.50) hours, their warm up mean score (S.Ds.) was 10.10 (3.33) minutes and competition mean score (S.Ds.) was 5.88 (2.09) in one year.

Furthmore, the mean Score (S.Ds.) age of Age group (14-21)football players was 24.32 (8.66) years, mean score (S.Ds.) weight was 70.23 (17.99) Kg.,mean score (S.Ds.) height was 171.30 (58.95) cm., their training mean score (S.Ds.) was 4.65 (1.77) days, their training duration mean score (S.Ds.) was 2.47 (.51) hours, their warm up mean score (S.Ds.) was 10.18 (3.43) minutes and competition mean score (S.Ds.) was 6.43 (2.17) in one year.

The findings of the study indicates that, total 107 football players were participated in any sporting activity other than football more than two hours a week; 23 football players participated in Cricket, 14 Volleyball, 10 Basketball, 16 Hockey, 07 Swimming, 07 Kho-Kho, 08 Kabaddi, Track and field 24 and 11 others games and sports. The result reveals that the most of the football players have participating in cricket, hockey volleyball and basketball in any sporting activity other than football more than two hours a week this results is in conformity with a study of pagare 2009 jhadav et.al. 2008, and singh 2007 who concluded that the most of the football players have participating in cricket, volleyball and basketball. This result is also supported by Crombell (2002). Results from this study could be useful for policymakers, coaches sportsperson and physical educators as they work to construct programmes and policies regarding and maintaining a high sports. Having a clearer understanding of how sportsperson perform themselves in a sports competition, within a national context, It may also contribute to help the physical Educators, football expertise and coaches to know about the importance of correct technique thereby ensuring the peak performance in the football . It may also provide insight to football players and football related experts will know about the benefit in football performance in predicting success of football players.

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Electrical studies on Nanoparticle Doped Organic Media

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Dispersion of various nanoparticles to organic media (like: liquid crystals) has recently been the subject of new interest because they combine the fluidity and anisotropy of liquid crystals (LCs) with specific properties of particles. In this article we have studded the effect of nano particles (NPs) in electrical properties of organic medium. We have used organic medium as room temperature nematic liquid crystals (NLCs). The electrical properties of organic medium have been changed in presence of NPs. The effective electrical properties like: Dielectric anisotropy and DC conductivity etc. calculated for pure as well as in dispersed system. There is change in dielectric constant and permittivity at different temperature due to strong interaction between molecules of NLCs and ferroelectric nanoparticles.

Literature Review:

Liquid crystals form from organic compounds and is thought of as the phase of matter between the solid and liquid state of a crystal. For instance, a liquid crystal may flow like a liquid, but its molecules may be oriented in a crystal-like way. This phenomenon was discovered in 1888 by Austrian chemist Frederich Reinitzer. The various liquid crystal phases (called mesophases) can be the type of ordering. Most thermotropic liquid crystals will have an isotropic phase at high temperature. That is heating will eventually drive them into a conventional liquid phase characterized by random and isotropic molecular ordering, and fluid-like flow behaviour. Thermotropic phases are those that occur in a certain temperature range. If the temperature rising is too high, thermal motion will destroy the delicate cooperative ordering of the liquid crystal phase, pushing the material into a conventional isotropic liquid phase. In contrast to the high temperature, at too low T, most liquid crystal materials will form a typical crystal. One of the most common liquid crystal phase is the nematic, where the molecules have no positional order (free to move in space), but they have long range orientational order. Therefore, the molecules flow lust like in a liquid, but they all point in the same direction. Most nematics are uniaxial. Some liquid crystals are biaxial nematics, meaning that in addition to orienting their long axis, they also orient along a secondary axis [1].

Introduction:

Dispersion of various nanoparticles to NLCs has recently been the subject of new interest because they combine the fluidity and anisotropy of NLCs with specific properties of particles [3-5]. For example, dispersed ferromagnetic particles greatly enhance the electric properties of liquid crystals. Large colloidal particles form defects in liquid crystal matrices, producing large director deformations. Ensembles of these particles and defects can form complex structures. It is found that doping of NLCs with a small amount of ferroelectric nanoparticles strongly affects the dielectric properties of the system.

In the present article, we are discussing the results which shows that the phenomenon due to electric properties of NLCs suspension containing ferroelectric nanoparticles. There is change in dielectric constant and permittivity at different temperature due to strong interaction between NLCs and ferroelectric nanoparticles.

Experimental Techniques:

The NLCs-NPs composites are prepared by adding a weight percentage of NPs in the liquid crystalline material. NLCs and NPs have been dissolved in chloroform ($CHCl_3$) and nano-composites are ultrasonicated in isotropic phase to obtain uniform dispersion. Slow evaporation of the solvent ($CHCl_3$), resulted in the formation of desired dispersion. Ferroelectric nanoparticles (Fe-NPs) have been dispersed in a NLCs. NLCs is chosen for dispersion of Fe-NPs because of its low viscosity over a wide range of nematic phase. Fe-NPs and NLCs have been purchased from Sigma-Aldrich and are used without further treatment. The size of dispersed Fe-NPs is less than 50 nm. The composites are

stirred in the isotropic phase of NLCs at 45ºC by using a magnetic vibrator to get homogeneous dispersions. For electrical measurements, the pure NLCs and composites are filled in the cells by capillary action. The cells have been made from indium tin oxide (ITO) coated glass electrodes as parallel plate capacitor and the thickness of cell as 10 μm. The inner surfaces of cells have been coated with polymer and parallel-rubbed for planar alignment. These cells have also been used to measure the transverse component of relative permittivity ($\varepsilon_{\perp}^{'}$) and loss ($\varepsilon_{\perp}''$).

Results:

Table 1: Dielectric anisotropy ($\Delta\varepsilon'$) and permittivity ($\varepsilon_{\perp}^{'}$ and $\varepsilon_{\perp}^{'}$) of the pure and dispersed samples at 30.0 °C.

Sample	$\varepsilon_{II}^{'}$	$\varepsilon_{\perp}^{'}$	$\Delta\varepsilon'$
Pure NLCs	12.0	5.8	6.2
NLCs+ Fe-NPs	12.4	5.7	6.7

From table 1 it clear that due to dispersion of Fe-NPs the value of dielectric anisotropy ($\Delta\varepsilon'$) have been increased.

Table 1: DC conductivity anisotropy (μS/m) of the pure and dispersed samples at 30.0 °C.

Sample	σ_{IIdc}	$\sigma_{\perp dc}$	$\Delta\sigma_{dc}$
Pure NLCs	3.132	3.120	0.012
NLCs+ Fe-NPs	3.231	3.141	0.092

From table 2 it is found that $\Delta\sigma$ increases manifold for the composites in the nematic phase compared to that of the pure sample. Hence the composites of NLCs and Fe-NPs could be utilized in electro-optic devices such as conductivity switch and others.

Conclusions:

We have demonstrated the effects of Fe-NPs dispersion on electrical properties of the pure NLCs. The composites are shown to enhance electrical properties like: dielectric anisotropy and conductivity. Inclusion of Fe-NPs also increases the dc conductivity anisotropy of the composite systems which could be utilized in the device application such as conductivity switch etc. This phenomenon could be utilized to enhance the usable frequency bandwidth of NLCs which has low relaxation frequency.

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A Study on Opinion of People of about Demonetisation W.R.T. Thane Region

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ABSTRACT :

Demonetization is the act of stripping a currency unit of its status as legal tender.

November 8th 2016 will go down in Indian history as a red letter day. It marks the day, Indian economy moved from Black economy to white. In what will be known as a ground breaking, historical move, On November 8th, Prime Minister Narendra Modi announced the demonetization of Rs500 and Rs1000 currency notes. The demonetisation was done in an effort to stop counterfeiting of the current banknotes allegedly used for funding terrorism, as well as a crack down on black money in the country. The move is also aimed at reducing corruption, drug menace and smuggling.

KEYWORDS :
Internet , Digitalisation , public opinion

INTRODUCTON :

Demonetization is the act of stripping a currency unit of its status as legal tender. Demonetization is necessary whenever there is a change of national currency. The old unit of currency must be retired and replaced with a new currency unit.

November 8th 2016 will go down in Indian history as a red letter day. It marks the day, Indian economy moved from Black economy to white. On November 8th, Prime Minister Narendra Modi announced the demonetization of Rs500 and Rs1000 currency notes.

India is also largely a cash economy. The cash transaction in this economy are far more than the total no of electronic transactions done on the daily bases. The problem is that investment is not taking place in the economy and the rate of growth of capital formation is down. The only way to bring this up is to divert more funds into investments which will happen when the cost of capital come down.

People who have legally earned cash, will start depositing it in bank. This will help improve bank's Cash Reserve Ratios and increase bank deposits. This will lead to more lending. Increase lending activity will make it easier for legal businesses to raise capital and economy will grow. The move is aimed at combatting corruption, black money, money laundering and financing of terrorists as well as counterfeit notes.

OBJECTIVES :

- To understand how this decision affects to all sectors.
- To study the public opinion on demonetisation.

HYPOTHESIS :

H 0 :- There is no positive impact of demonetisation among people.
H 1 :- There is positive impact of demonetisation among people.

REVIEW OF LITERATURE :

After the government made a surprise announcement of making Rs1,000 and Rs500 banknotes illegal from midnight, the monetary authority posted a 25-point detailed FAQs explaining the rationale behind the move. The Reserve Bank of India said the most important reason for the ban was the abnormal rise in fake currencies of higher denomination, and also the higher incidence of black money in the system, but assured the public that a person who changed his higher value cash will get exactly the equal amount in lower denominations.

"You will get value for the entire volume of notes tendered at the bank branches/RBI offices," the central bank assured the public. But it was quick to add that there will be caps on the cash one can tender.

"One will get up to Rs4,000 in cash irrespective of the size of tender and anything over and above that will be receivable by way of credit to bank account," the RBI said pointing out that one cannot get the entire amount in cash as the scheme of withdrawal of old high denomination notes does not provide for it, given its objectives.

"The fake notes are used for anti-national and illegal activities. High denomination notes have been misused by terrorists and for hoarding black money. We as a nation remain a cash-based economy, hence the circulation of fake rupees continues to be a menace. To contain the rising incidence of fake notes and black money, the scheme to withdraw high-denomination notes has been introduced," RBI said.

Explaining the importance of the scheme, the RBI said the legal tender character of the notes in denominations of Rs500 and Rs1,000 stands withdrawn. In consequence, the withdrawn old high denomination notes cannot be used for transacting business and/or store of value for future usage.

The old notes can be exchanged for value at any of the 19 offices of the Reserve Bank, any of the bank branches or at any head post offices or sub-post offices.

For those who need higher amount of cash over and above the permitted Rs 4,000, RBI said one can use balances in bank accounts to pay for other requirements by cheque or through electronic means such as online banking, mobile wallets, IMPS, credit/debit cards etc.

For those without any bank account, RBI said they can open an account with necessary KYV documents.

A person with no personal account of her own can avail of this exchange facility via a relative/friend's account with written permission. But while exchanging, one should provide the evidence of permission given by the account holder and own valid identity proof.

The exchange can also be done through a third party provided one gives a written authorisation letter with the bearer, who should also prove the identity.

On withdrawals/exchanges through ATMs, the RBI said banks will take time to recalibrate the ATMs. Once the ATMs are functional, one can withdraw upto a Rs2,000 per card per day up to November 18. The limit will be raised to Rs4,000 per day per card then onwards.

Even cash withdrawal through cheque/withdrawal slips is subject to a ceiling of Rs10,000 in a day within an overall limit of Rs20,000 in a week (including withdrawals from ATMs) for the first fortnight-up to November 24.

Higher value notes can be deposited/withdrawn through ATMs, cash deposit machines and cash recyclers.

But electronic transactions (NEFT/RTGS/IMPS/ online banking/mobile banking etc.) can be done with no limits.

The scheme closes on December 30, 2016 until then one can exchange the banned notes at the branches of commercial banks, regional rural banks, urban cooperative banks, state cooperative banks and special RBI counters.

RESEARCH METHODOLOGY :

Sample size:- Sample size for this study was 30 people in Thane city.

Data collection Methods:- Data was collected from both primary and secondary sources.

Primary data is collected through questionnaire method:- Detailed Questionnaire was prepared for the people who have agreed with the decision of the Government.

Secondary data is collected through following sources:-

1. Use of Internet - Internet was extensively used to seek data from the various websites.
2. Use of newspaper.

DATA ANALYSIS AND INTERPRETATION :

Public opinion about Demonetisation of Rs500 and Rs1000 notes:-

We have done a survey using a questionnaire method from that we come across a conclusion

that people those who are agreed with the decision is around 70% and those who are disagreed with the decision is around 30%.

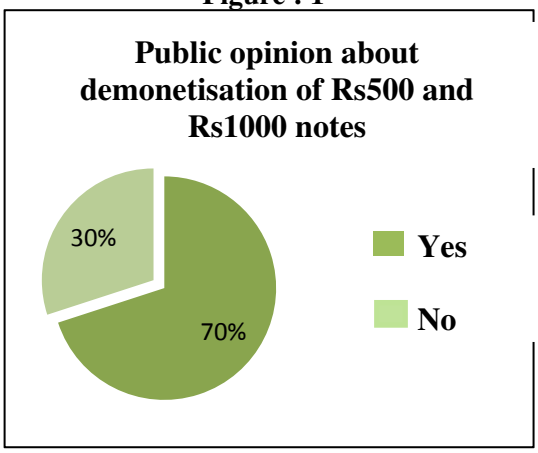
(Graphical presentation is shown in figure 1)

Table : 1

Yes	**21**	**70%**
No	**9**	**30%**
Total	**30**	**100%**

Source: By primary data

Figure : 1



Source: By primary data

Public opinion on scope and success in various fields:-

Out of total respondents 54% said that it has a wide growth of Indian economy in future as there is increase in economic development of India. 33% said narrow because they don't trust the authentication and the way of Government management methodologies and 13% were unable to give any opinion because they are very confused.

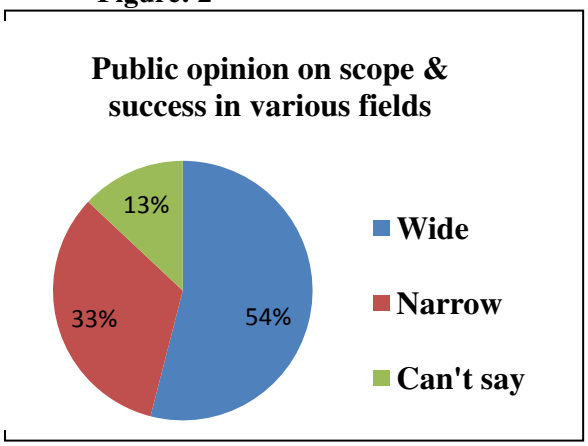
(Graphical presentation is shown in figure 2)

Table : 2

Wide scope	**16**	**54%**
Narrow scope	**10**	**33%**
Can't say	**04**	**13%**
Total	**30**	**100%**

Source: By primary data

Figure: 2



Source: By primary data

Majority of the respondents i.e. 60% said that it will take around 2-5years for complete vanish all the corruption, black money and counterfeit notes and hence it will be helpful to achieve our Prime Minister Narendra Modi's Digital India campaign said by 76% of respondents.(Graphical presentation is shown in figure 3 & 4).

Table :3

2-5 years	**18**	**60%**
5-7 years	**08**	**26%**
Can't say	**04**	**14%**
Total	**30**	**100%**

Figure: 3

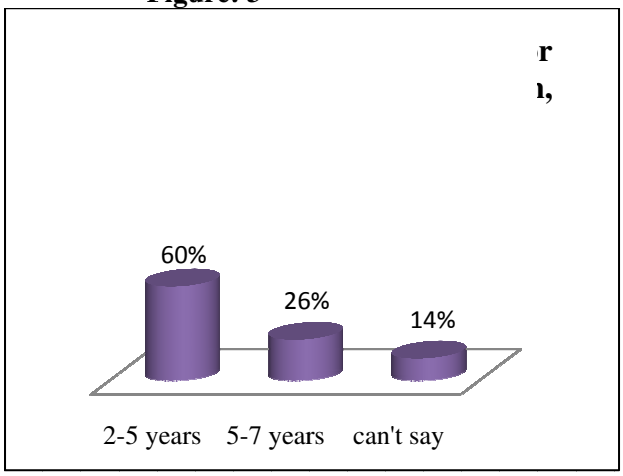
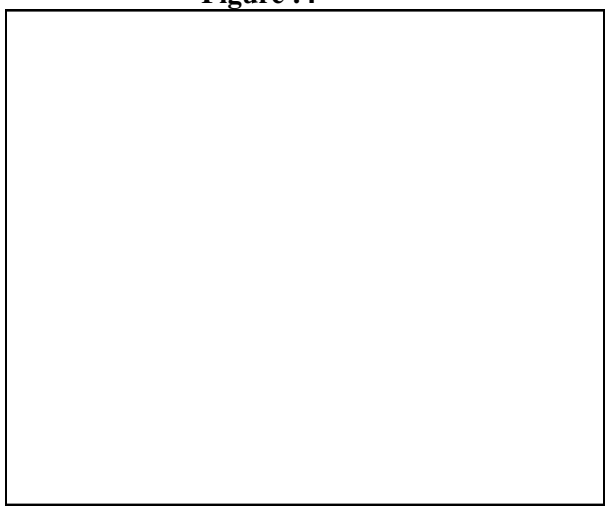


Table: 4

Yes	**23**	**76%**
No	**02**	**07%**
Can't say	**05**	**17%**
Total	**30**	**100%**

Figure :4



CONCLUSION :

As per the analysis we can concluded that most of the people are in the favour of the Government decision, but they have to suffering many problems like, existing Rs500 & Rs1000 notes will not be accepted by the private hospitals, bank branches not having sufficient currencies, also there is limit for withdrawal of money.

Here, with collected data null hypothesis is rejected stating a positive impact.

There is positive impact of demonetisation among people. Many peoples supports the decision taken by the government. Not only this but also common man having a hope that in future we can achieve a great control on the corruption, blank money & terrorism issues. This is what the people have been asking for a long time which has finally happened.

So far, it can be said that this is a historical step and should be **supported by all.**

SUGGESIONS :

The decision taken by the government about demonetisation is correct for the public. We can suggest to the public that they should cooperate with this decision, don't panic, our government takes this decision for the whole country benefits. Government should provide sufficient quantity of new currencies to banks, ATM's and other financial institutions.

Not only the public support is required but also the government has to take some more immediate actions against to stop corruption, terrorism, black money.

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- **QUESTIONNAIR ON STUDY ON PUBLIC OPINION ABOUT DEMONETISATION**

1. Do you agree with the decision of demonetisation of rs500 & rs1000 notes?

- **Yes**
- **No**
- **Can't say**

2. Do you think that black money exits in India ?

- **Yes**
- **No**
- **Can't say**

3. Do you think the evil of corruption and black money needs to be fought & eliminated?

- **Yes**
- **No**
- **Can't say**

4. Do you think demonetisation will helpful to Prime Minister Narendra Modi's digital India campaign?

- **Yes**
- **No**
- **Can't say**

5. Do you believe some anti-corruption activities are now actually fighting in support of black money, corruption & terrorism?

- **Yes**
- **No**
- **Can't say**

6. Have you come across any currency change issue in the day to day market while buying any product?

- **Yes**
- **No**
- **Can't say**

7. Whether the banks are supporting to you in this situation?

- **Yes**
- **No**
- **Can't say**

8. Do you have any suggestions, ideas or opinion you would like to give ?

_____

_____

_____

* * *

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Medical Rehabilitation and its Obstacles from the Point of View of the Collective Players Games

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Introduction :

Team sports (football, basketball, plane, hand) practiced in many countries of the world in order to compete, health, recreation and fitness for youth and adults, and with the great development in the field of sports training and different theories to get players to the highest physical and skill levels in the game, on the other hand We find also an important development in the field of sports medicine for the division's ability to level players healthy and qualify for a stretched physical required of them, as well as work on the speed of the injured players return to action.

The doctor and physiotherapist are preparing one of the important elements of the medical team for each athlete and team who work in the prevention of medical rehabilitation Besides keeping fit because of injury constitute an obstacle to prevent the athlete to get to the upper levels.

Infection occurs in different sports as sports type and strength of competition and according to the sports level, Injuries that occur are also different according to the "competition type and collision or a fall or severe beatings resulting in injury to stand in the way between them and return once again to the arenas pitch to perform normal activity, and reduce the severity of those injuries make a continuous training process without interruption and operates access to high-athlete in sports levels and achieve the best results.

Importance of the Study

From here it highlights the Importance of the study in the study of the constraints of medical rehabilitation in accordance with the work areas of medical and physical staff and prepare for qualifying the players some collective Games players applicants in clubs Qadisiyah center, and by which they can diagnose those reasons that lead to the occurrence and recurrence of such injuries, and what those obstacles that stand for the arrival of the player to the upper levels and through knowledge of these factors can contribute to the upgrading of the level of workers and trainers for the prevention of injuries and avoid falling

The problem of the Study

For access to the achievement of higher mathematical study requires investigation of all the requirements that we have reached that level, including the factors that lead to sports injuries occur to the players, and the researcher believes that sports injuries stand in the way of exercise favorite sport and access to higher level and because of the obstacles to medical rehabilitation and Lacking the Provisions of the medical team and the lack of equipment and devices to treatment and the lack of special courses for sports injuries. And through informed researcher on research and previous studies in the faculties and departments of physical education libraries in Iraq researcher noted that the lack of research libraries that contain the factors and causes that lead to infection with the sports teams. So it aroused the attention of the researcher for the study of those obstacles that stand in the player march and what leave negative effects that may result in sports injuries, so view finder to find appropriate solutions through the use of scientific sources down in the player to higher levels and reduce the incidence of sports injuries.

Objectives of the Study

1. identify the obstacles to medical rehabilitation from the standpoint of the players collective games Qadisiyah center.

2. an analytical study of the obstacles to medical rehabilitation from the standpoint of the players collective games Qadisiyah center.

Hypotheses:

1. There are many obstacles adversely affect the level of ambition of the mass games.
2. The lack of medical staff of the impact of the negative impact of the study sample.

Areas of study

The human sphere: players exert some team sports (volleyball, football, handball, basketball) clubs Qadisiyah center to the category of applicants.

Field time: Duration of 07.10.2014 until 07.10.2015

Spatial area: golf clubs and halls included in the study.

Study Approach

The researcher used the descriptive survey manner for suitability with the nature of the problem

The study population:

Find been identified community club teams in Qadisiyah province of collective games to the category of applicants and clubs are (Diwaniya Club, Two Rivers Club, dignity Club, Awakening Club, Youth Club).

The original community reached (202) as a player and the study sample (202) player

Discuss the results

In light of the results achieved in the table view (2) the existence of the level of significance when the degree of freedom and at the significance level (0.05), where the calculated values of the vertebrae

Private handicaps members of the medical staff and the lack of medical and difference in performance for the treatment of certain sports injuries and team non-participation of specialist sports in the selection of players who are bigger than tabular value which is (3.84) (confirmed scientific experiments that the correct use of health factors when training field management to achieve High of health level, and maintains the athletic level, with fitness stability and rapid adjustment with the external environment cases and variables) of the relationship between members of the medical staff, as was also the moral significance of the paragraphs of non-clear understanding between the medical staff and the perception that the work Specialist only first aid (The issue of awareness and success among members of the medical management related to the formation of an important aspect personal aspects of the player for this, this issue must find a planned care and deliberate, like the educational process systemic and are considered healthy, such as an integrated unit in the three components of physical and psychological and's social) for the second area for obstacles own in physical and human side as were special physical aspect and the human paragraphs where the weakness of the special sessions of sports injuries and choice of others is true of the applicants for the sessions of sports injuries and a lack of testing standards and therapists in the clubs and the lack of courses training on the therapeutic devices and the lack of criteria for the classification therapists in the field of the injuries were significant differences among handball players while other paragraphs were smaller than the tabular value and less than the level of significance which there were no significant differences for these constraints for the game while there were constraints in different performance in the treatment of some injuries and non-interference by the sports specialist in the selection of athletes as well as non-availability of diagnostic services.

The table (3) is clear from the table in the rate of basketball players, where all paragraphs moral significance except the second paragraph in the first field for the relationship of the obstacles between the medical staff where there is a weakness in the interest of athletes injured records in clubs

and physical weakness of the player during non-availability of treatment places special treatment for non-availability of diagnostic equipment and the lack of studies and medical rehabilitation in medical rehabilitation areas, where the social and economic dimensions of more obstacles to physical activity.

While the injury to the players volleyball as shown in the table (4) moral significance in paragraphs pertaining to the first area where the lack of medical and difference in performance team in the treatment of some injuries and lack of consultation with a specialist sports in the selection of players and this adversely affects the level of players Because the occurrence of any injury without the presence of a medical team player may reach a state of more serious when communicated to the doctor or until the completion of his treatment and the lack of consultation with a specialist in the selection of players, there may be a chronic disease or chronic infection without detection and this adversely affects the sports and the safety

As can be seen from the table (5), which is the ratio of the constraints which some agree and others do not agree with the football players, where all the paragraphs of all obstacles with moral significance and this shows that the obstacles for the medical cadre in terms of the relationship between members of the medical staff and lack of their presence in the sports teams and the different performance in the treatment of some injuries and not consulted in training modules that adversely affect the level of the player, either obstacles own physical and human side, a lack of clarity of the role of medical staff and the lack of special services in the diagnosis of injury and lack of budget.

And constraints for the preparation of medical and rehabilitation where the lack of studies in this area and the low level of courses and choice is the right of applicants for courses medical rehabilitation and the lack of choice and therapists standards in sports clubs, as there are views in difficulty for medical longitudinal measurements during the season and this attributed to the weakness and lack of approved budget in this area. (trainer must develop knowledge and abilities in his duties to serve the athletes and their sponsors educational and health, where the diagnosis of the injury or the process set up by the most important duties that the trainer should mastery dramatically. and to take care of the players private health program ranks First in the necessities of training programs)

Conclusions

1. own obstacles in the relationship between members of the medical staff.
. The absence of a medical team sports teams
. Not to allow the intervention specialist in sports clothes and sports shoes.
. Not to consult a specialist or specialist sports in the selection of talented players
. Not consulting a specialist doctor or therapist medical units during training or matches.
2. Special obstacles in the physical aspect of the human or
. Physical weakness of the player during treatment
. Lack of interest in people living in the records of the clubs during the season.
. Difficulty in conducting and complemented treatment.
. There is no clarity in the role of medical staff
. The lack of specific injuries budget
. The perception that the only specialist first aid.
3. Special obstacles in preparing medical and rehabilitation
. Selection is true for applicants to medical rehabilitation sessions
. The lack of training on the therapeutic apparatus courses
. The lack of studies and medical rehabilitation in the areas of medical rehabilitation
. The lack of testing standards and therapists in sports clubs.
. The lack of criteria for the classification of therapists and doctors in the field of medical rehabilitation.

Recommendations

1. The need for a medical cadres for each sports team for all sports clubs
2. Medical Specialists or post processor in the training program and the introduction of views in how to choose the appropriate clothing and sports shoes.
3. Player treatment in the event of an injury without neglect and providing records and conduct private and complemented treatment.
4. Hold special courses for players to educate the player from the health side and avoid the causes of injuries and training courses on therapeutic apparatus.
5. Identification or classification of therapists and doctors in the field of medical rehabilitation
6. Conduct research similar to individual games for the purpose of knowing the problems of the individual games as well. .

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Orientation to Improving Content and Form of Sport and Exercise for Secondary School Pupils in Central Highlands Vietnam

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Abstract

Upon studying current situation of physical education for secondary school pupils in Central Highlands Vietnam, we conducted in-dept interview with 98 physical education teachers, and 30 experts and administrators. We also identified the orientations and requirements to improving content and form of sport training for those pupils.

Key words: Physical education, sport and exercise, secondary school pupils, Gia Lai, Kontum

19.1 Introduction

Education's duty is to elevate people's mind, develop human resources, exploiting talents, forming characteristics and develop Vietnamese' capabilities in this era of international competition and globalization. This is considered a breakthrough in our country's educational development strategy 2011-2020 in the process of industrialization and modernization. Through education and training, learners can gain more knowledge about nature, society and oneself (Hargreaves, 2003). They can also be trained in basic skills (thinking, learning, working, behaving) so that they can decide their own career and contribute to the country. However, recent education and training programs have not met the expectations of the society. As a result, a basic and complete change of education and training that can follow the trend of the society's development is an urgent matter. This is a big and deep matter, including changes in the structure of educational grades in the system, changes in educational perception; goal; mechanism; philosophy as well as changes in teacher training, facilities, equipments, curriculum, textbooks.

As a field of education, physical education is no exception. One of the missions of developing physical education and sport activities that were defined in the Strategy of Vietnamese Sport Development by the year 2020 is:

Increasing the quality of the official physical education classes

Improving the content and the quality in the direction of mixing physical education and sport activities with entertainment, paying more attention to the students' needs(King, Stokols, Talen, Brassington, & Killingsworth, 2002). Building physical education curriculum in synchronization with national defense education. Combining school healthcare and school diet.

Developing extracurricular sport activities

Building sport clubs in schools, encouraging students to spend about 2-3 hours/ week to participate in extracurricular sport clubs, classes (Howie, Lukacs, Pastor, Reuben, & Mendola, 2010). Supplying and developing suitable sport entertainment system for each grade, area and province.

Western mountainous area in general and Gia Lai-Kon Tum area in particular is located in an extremely important place in terms of politics, economy, culture and national defense in the process of industrialization and modernization. As a result, developing education and improving people's intellectual in this area is a key point in the process.

Nevertheless, education in general and physical education in particular in this area is facing a lot of difficulties, especially in secondary schools with about 50% of students are from ethnic minorities

that require special treatment. After a physical test in school year 2009-20010, it can be seen that the average height of secondary students in the remote areas when compared to average Vietnamese height is about 6.77 to 7.36 cm shorter for boys and 7.32 to 9.29 cn shorter for girls. In terms of weight, students in this area are about 4.88 to 8.32 kg lighter for boys and 4.42 to 6.67 kg lighter for girls. Their overall physical stats are also lower than the average stats of Vietnamese.

Beside other subjects, physical education in these areas' secondary schools is also carried out the same way as it is in the other provinces of the country. According to the rules of the Ministry of Education and Training, there are 74 hours/ year for physical education, which is equal to 2 periods/ week with 45 minutes/ period. With such little time for physical education as well as other group, cultural and sport activities, the physical education for students in these area is really limited. These areas require changes in teaching content and methods to draw out the student's creativity and positiveness in combination with organization of extracurricular sport activities. From those, it is clear that the most vital factor is having a suitable and attractive official physical education content. To achieve that, it is necessary to define possible directions and requirements for improvement which are suitable for the high areas of Gia Lai- Kon Tum.

19.2 **Research methodology**

This paper employs a number of different research methods, such as literature review and analysis; in-depth interview; talk; and mathematical statistics.

The research was conducted in provinces in the Central Highlands of Vietnam, namely Gia Lai – Kon Tum provinces.

19.3 **Research findings**

The data is collected and presented in Table 2.1, 2.2, 2.3 and 2.4.

Table 2.1. Expert's views on orientation to improve form and content of sport and exercise for secondary school pupils in the Central Highlands of Vietnam

Content	First interview (n=28)		Second interview (n=30)		Average (%)
	Agree	%	Agree	%	
1.Concept: Prioritize educational aspects in the improved curriculum.					
*Education of motor skills - techniques					
- Number 1	0	0	0	0	0
- Number 2	28	100	30	100	100
- Number 3	0	0	0	0	0
* Enhancing health and physical fitness qualities					
- Number 1	26	92.85	28	93.33	93.09
- Number 2	2	7.15	2	6.67	6.91
- Number 3	0	0	0	0	0
* Moral education					
- Number 1	0	0	0	0	0
- Number 2	0	0	0	0	0
- Number 3	28	100	30	100	100
2. Improved curriculum should be a combination of the required currciulum and practical requirements.					
* Agree	28	100	30	100	100

* Disagree	0	0	0	0	0
3. Enhancing pupils' motivation and activeness to learn so that physical education lessons will be funny and healthy hours with slogan "healthy and funny movement"					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
4.Reducing some required content in the existing curriculum:					
* Agree	25	89.28	26	86.67	87.98
* Disagree	3	10.72	4	13.33	12.02
5. Lồng ghép nội dung phát triển sức bền chung trong tất cả các nội dung giảng dạy qui định Coordinating physical strength development into all required teaching content.					
* Agree	25	89.28	27	90	89.64
* Disagree	3	10.72	3	10	10.36
6.Selecting sport optional course according to pupils' interest and practical facilities conditions.					
* Agree	28	100	98	100	100
* Disagree	0	0	0	0	0
7. Adding traditional sports to one of the in-class content in the curriculum.					
* Agree	25	89.28	26	86.67	87.98
* Disagree	3	10.72	4	13.33	12.02
8. Choosing proper fitness assessment and testing in accordance with practical conditions.					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
9. Criteria to assess new content in the improved curriculum					
-Exercise completion skill					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
- Regulation on pupils' academic evaluation and ranking No. 58/2011/TT-BGD-ĐT dated 12 Dec. 2011 by Ministry of Education and Training					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
10.Enhancing different forms of extracurricular activities for sport.					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0

Table 2.2. Teachers' views on orientation to improve form and content of sport and exercise for secondary school pupils in the Central Highlands of Vietnam

Content	First interview (n=98)		Second interview (n=95)		Average (%)
	Agree	%	Disagree	%	
1. Concept: Prioritize educational aspects in the improved curriculum					
* Education of motor skills - techniques					
- Number 1	0	0	0	0	0
- Number 2	98	100	95	100	100
- Number 3	0	0	0	0	0
* Enhancing health and physical fitness qualities					
- Number 1	95	96.93	91	95.78	96.36
- Number 2	3	3.07	4	4.22	3.64
- Number 3	0	0	0	0	0
* Moral education					
- Number 1	0	0	0	0	0
- Number 2	0	0	0	0	0
- Number 3	98	100	95	100	100
2. Improved curriculum should be a combination of the required currciulum and practical requirements.					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
3. Enhancing students' motivation and activeness to learn so that physical education lessons will be funny and healthy hours with slogan "healthy and funny movement"					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
4. Reducing some required content in the existing curriculum:					
* Agree	95	96.94	92	96.85	96.9
* Disagree	3	3.06	3	3.15	3.1
5.Coordinating physical strength development into all required teaching content.					
* Agree	95	96.94	92	96.85	96.9
* Disagree	3	3.06	3	3.15	3.1
6.Selecting sport optional course according to pupils' interest and practical facilities conditions.					

* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
7. Adding traditional sports to one of the in-class content in the curriculum.					
* Agree	92	93.88	88	92.64	93.26
* Disagree	6	6.12	7	7.36	6.74
8. Choosing proper fitness assessment and testing in accordance with practical conditions.					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
9. Criteria to assess new content in the improved curriculum					
- Exercise completion skill					
* Agree	95	96.94	92	96.85	96.9
* Disagree	3	3.06	3	3.15	3.1
- Regulation on pupils' academic evaluation and ranking No. 58/2011/TT-BGD-ĐT dated 12 Dec. 2011 by Ministry of Education and Training					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
10. Enhancing different forms of extracurricular activities for sport.					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0

Table 2.3. Experts' views on requirement to improve form and content of sport and exercise for secondary school pupils in the Central Highlands of Vietnam

Content	**First interview** (n=28)		**Second interview** (n=30)		**Average (%)**
	Agree	**%**	**Disagree**	**%**	
1. Reduce content					
a. Omit line-up excercise for its overlapping content with curriculum of sport and exercise in the primary school and its similar objectives with general development exercise.					
* Agree	25	89.28	26	86.67	87.98
* Disagree	3	10.72	4	13.33	12.02
b. Sitting Bounce and Long-jump only apply for 6^{th} and 7^{th} graders					
* Agree	25	89.28	27	90	89.64
* Disagree	3	10.72	3	10	10.36

c. High jump only applies for 8th and 9th graders.					
* Agree	25	89.28	27	90	89.64
* Disagree	3	10.72	3	10	10.36
2. Schedule physical education periods					
- Arrange class into 2 separate periods as required					
* Agree	28	100	27	90	95
* Disagree	0	0	3	10	5
- Integrate 2 periods into one lesson					
* Agree	0	0	3	10	5
* Disagree	28	100	27	90	95
- Arrange physical education lesson in the same session with other subjects					
* Agree	5	17.86	4	13.33	15.59
* Disagree	23	82.14	26	86.67	84.41
- - Assign physical education lesson on a different day from that of other subjects.					
* Agree	23	82.14	26	86.67	84.41
* Disagree	5	17.86	4	13.33	15.59
3. Each period only deals with one required content or coordinated with physical strength development exercise.					
* Agree	25	89.28	26	86.67	87.98
* Disagree	3	10.72	4	13.33	12.02
4.Different content is arranged altogether to arouse pupils' interest.					
* Agree	23	82.14	26	86.67	84.41
* Disagree	5	17.86	4	13.33	15.59
5. Testing of pupils' physical strength is done in accordance with practical conditions of the school apart from required content.					
- Pressed force of favorable hand (Kg)					
* Agree	0	0	0	0	0
* Disagree	28	100	98	100	100
- Sit up (bout/30s)					
* Agree	26	92.85	28	93.33	93.09
* Disagree	2	7.15	2	6.67	6.91
14.1 - Standing long jump (cm)					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
- 30m run (s)					
* Agree	25	89.28	27	90	89.64
* Disagree	3	10.72	3	10	10.36

- 4 x 10m shuttle run (s)					
* Agree	25	89.28	26	86.67	87.98
* Disagree	3	10.72	4	13.33	12.02
- 5 minute fartlek (m)					
* Agree	25	89.28	26	86.67	87.98
* Disagree	3	10.72	4	13.33	12.02
6. Evaluation of speed run, bounce; long-jump, high-jump needs to be based on pupil's physical strength evaluation standard					
* Suitable	28	100	30	100	100
* Not suitable	0	0	0	0	0
7. Organize sport and exercise club within school campus					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
8. Organize extracurricular activities on sport and exercise with instructor					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	
9. The organization of sport competition in school is diversified					
* Agree	28	100	30	100	100
* Disagree	0	0	0	0	0
10. Break-time excercise	28	100	30	100	100
+ 15 minute aerobics with music	25	89.28	26	86.67	87.98
+ Applause excercise	25	89.28	26	86.67	87.98
+ Game of movement/skill	0	0	0	0	0
11. Sport and exercise club	28	100	30	100	100
+ Modern sport	28	100	30	100	100
+ Traditional sport	28	100	30	100	100
12. Require and coach pupils to practise sport activities by themselves in their free time (with orientation)	28	100	30	100	100
+ Selective sport	7	16	4	13.33	14.66
+ Favorite sport	21	84	26	86.67	85.34
13. Team building	28	100	30	100	100
+Favorite motor game	21	84	24	80	82
+Sport	7	16	6	20	18
14. Organize internal sport competition and participate in sport competition.	28	100	30	100	100
+ On special occassions	28	100	28	93.33	96.66
+ Local sport event	28	100	27	90	95
+ Both	28	100	27	90	95

Table 2.4. Teachers' opinions about improving content and form of physical education and sport excercises for secondary school students in high areas of Vietnam

Content	First interview (n=98)		Second interview (n=95)		Average (%)
	Agree	%	Agree	%	
1. Reduce content					
a. Omit line-up excercise for its overlapping content with curriculum of sport and exercise in the primary school and its similar objectives with general development exercise.					
* Agree	95	96.94	92	96.85	96.9
* Disagree	3	3.06	3	3.15	3.1
b. Bounce and long-jump only apply for 6^{th} and 7^{th} graders					
* Agree	94	95.92	90	94.74	95.33
* Disagree	4	4.08	5	5.26	4.67
c. High-jump only applies for 8^{th} and 9^{th} graders.					
* Agree	94	95.92	90	94.74	95.33
* Disagree	4	4.08	5	5.26	4.67
2. Selective sport that is suitable with practical condition for 9^{th} graders					
+ Mini football	8	8.16	6	6.31	7.24
+ Volleyball	72	73.46	69	72.63	73.05
+ Shuttlecock kicking	3	3.06	3	3.16	3.11
+ Ping pong	2	2.06	4	4.21	3.13
+ Basketball	3	3.06	6	6.31	4.69
+ Vovinam martial art	5	5.1	3	3.16	4.13
+ Cầu lông Badminton	5	5.1	4	4.21	4.66
3. Selective sport that is suitable with practical condition for 8^{th} graders					
+ Mini football	6	6.12	5	5.26	5.69
+ Volleyball	4	4.08	7	7.37	5.73
+ Shuttlecock kicking	3	3.06	3	3.16	3.11
+ Ping pong	3	3.06	3	3.16	3.11
+ Basketball	5	5.1	3	3.16	4.13
+ Vovinam martial art	71	72.45	70	73.68	73.07
+ Badminton	6	6.12	4	4.21	5.17
4. Selective sport that is suitable with practical condition for 7^{th} graders					
+ Mini football	69	70.41	69	72.63	71.52
+ Volleyball	6	6.12	5	5.26	5.69
+ Shuttlecock kicking	3	3.06	4	4.21	3.64
+ Ping pong	5	5.1	5	5.26	5.18

+ Basketball	6	6.12	3	3.16	4.64
+ Vovinam martial art	5	5.1	4	4.21	4.66
+ Badminton	4	4.08	5	5.26	4.67
5. Selective sport that is suitable with practical condition for 6th graders					
+ Mini football	8	8.16	6	6.32	7.24
+ Volleyball	4	4.08	3	3.16	3.62
+Shuttlecock kicking	73	74.49	71	74.74	74.61
+ Ping pong	4	4.08	4	4.21	4.15
+ Basketball	3	3.06	3	3.16	3.11
+ Vovinam martial art	4	4.08	3	3.16	3.62
+ Badminton	2	2.04	5	5.26	3.65
6.Traditional sport for 9th graders					
+ Tug of war	8	8.16	7	7.37	7.77
+ Walking on stilts	5	5.1	4	4.21	4.66
+ Vovinam martial art	71	72.45	70	73.68	73.07
+ Push rod	8	8.16	6	6.32	7.24
+ Arbalester/shooting crossbow	6	6.12	8	8.42	7.27
7. Traditional sport for 8th graders					
+ Tug of war	9	9.18	10	10.53	9.85
+ Walking on stilts	7	7.14	6	6.32	6.73
+ Vovinam martial art	5	5.1	5	5.26	5.18
+ Push rod	6	6.12	5	5.26	5.69
+ Arbalester/shooting crossbow	71	72.45	69	72.63	72.54
8. Traditional sport for 7th graders					
+ Tug of war	8	8.16	7	7.37	7.77
+ Walking on stilts	6	6.12	8	8.42	7.27
+ Vovinam martial art	7	7.14	6	6.32	6.73
+ Push rod	71	72.45	70	73.68	73.07
+ Arbalester/shooting crossbow	6	6.12	4	4.21	5.17
9. Traditional sport for 6th graders					
+ Tug of war	70	71.43	70	73.68	72.56
+ Walking on stilts	5	5.1	7	7.37	6.24
+ Vovinam martial art	7	7.14	6	6.32	6.73
+ Push rod	5	5.1	6	6.32	5.71
+ Arbalester/shooting crossbow	8	8.16	6	6.32	7.24
10. Schedule physical education periods					
- Arrange class into 2 separate periods as required					
* Agree	98	100	92	96.85	98.43
* Disagree	0	0	3	3.15	1.57
- Integrate 2 separate periods into one session					
* Agree	0	0	3	3.15	1.57
* Disagree	98	100	92	96.85	98.43

- Arrange physical education lesson in the same session with other subjects					
* Agree	5	5.1	4	4.21	4.65
* Disagree	93	94.9	91	95.79	95.35
- Arrange physical education lesson in a different session with other subjects					
* Agree	93	94.9	91	95.79	95.35
* Disagree	5	5.1	4	4.21	4.65
11. Each period only deals with one required content or coordinated with physical strength development exercise.					
* Agree	92	93.88	88	92.64	93.26
* Disagree	6	6.12	7	7.36	6.74
12. Different content is arranged altogether to arouse pupils' interest.					
* Agree	93	94.9	91	95.79	95.35
* Disagree	5	5.1	4	4.21	4.65
13. Testing of pupils' physical strength is done in accordance with practical conditions of the school apart from required content.					
- Pressed force of favorable hand (Kg)					
* Agree	0	0	0	0	0
* Disagree	98	100	95	100	100
- Sit up (bout/30s)					
* Agree	96	97.96	90	94.74	96.35
* Disagree	2	2.04	5	5.26	3.65
- Standing long jump (cm)					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
- Chạy 30m XPC 30m run (s)					
* Agree	93	94.9	91	95.79	95.35
* Disagree	5	5.1	4	4.21	4.65
- Chạy con thoi 4 x 10m shuttle run(s)					
* Agree	93	94.9	91	95.79	95.35
* Disagree	5	5.1	4	4.21	4.65
- 5 minute fartlek (m)					
* Agree	93	94.9	91	95.79	95.35
* Disagree	5	5.1	4	4.21	4.65
14. Evaluation of speed run, bounce; long-jump, high-jump needs to be based on pupil's physical strength evaluation standard					
* Suitable	96	97.96	90	94.74	96.35
* Not suitable	2	2.04	5	5.26	3.65
15. Organize sport and exercise club within school campus					
* Agree	95	96.94	92	96.85	96.9
* Disagree	3	3.06	3	3.15	3.1

16. Organize extracurricular activities on sport and exercise with instructor					
* Agree	98	100	95	100	100
* Disagree	0	0	0	0	0
17. The organization of sport competition in school is diversified					
* Agree	95	96.94	92	96.85	96.9
* Disagree	3	3.06	3	3.15	3.1
18. Break-time excercise	98	100	95	100	100
+ 15 minute aerobics with music	95	96.94	92	96.85	96.9
+ Applause excercise	95	96.94	92	96.85	96.9
+ Game of movement/skill	0	0	0	0	0
19. Sport and exercise club	98	100	95	100	100
+ Modern sport	98	100	95	100	100
+ Traditional sport	95	96.94	92	96.85	96.9
20. Require and coach pupils to practise sport activities by themselves in their free time (with orientation)	98	100	95	100	100
+ Selective sport	7	7.14	4	4.21	5.67
+ Favorite sport	91	92.86	91	95.79	94.33
21. Team building	98	100	95	100	100
+ Favorite motor game	88	89.8	86	90.53	90.17
+ Sport	10	10.2	9	9.47	9.83
22. Organize internal sport competition and participate in sport competition.	98	100	95	100	100
+ On special occassions	28	100	91	95.79	97.89
+ Local sport event	28	100	90	94.73	97.36
+ Both	28	100	91	95.79	97.89

2.1. Orientation and requirement for improving regular physical education curriculum:

In reference with the regular physical education curriculum, local and international physical education related documents, evaluation and assessment of existing physical education curriculum, we identified orientation for improving regular physical education curriculum based on in-depth interview with 98 teachers and 30 experts, and administrators.

a. The new curriculum has been improved based on the teaching and assessment content of the existing curriculum and acceptance of ideas on practical requirement.
b. Identifying prioritized objectives of physical education at secondary school: Ranked the first is enhancing physical health and educating physical fitness qualities (with 93.09%-96.36% respondents); Ranked the second is educating necessary motor skill-techniques (with 100% respondents); Ranked the third is moral education (with 100% respondents)
c. Enhancing pupils' motivation and activeness to learn so that physical education lessons will be funny and healthy hours with slogan "healthy and funny movement" (from 87.98% to 100% respondents)
d. Reducing certain content in the required curriculum distribution (from 87.98 to 96.9%): line-up for its overlaping content with physical education at primary school and its similar objectives with general development exercise (from 87.98%-96.9%); Sitting Bounce and Long-jump only apply for the 6^{th} and 7^{th} graders (89.64%-95.33%); High-jump only applies for the 8^{th} and 9^{th} graders (89.64%-95.33%).
e. Integrate general physical strength exercise for pupils from 6^{th} to 9^{th} graders into all required teaching content.

f. Select elective physical education in accordance with practical condition and interest of pupils in the Central Highlands with 100% respondentes (Shuttlecock kicking: for the 6th graders, with 74.61% respondents; Mini football: for the 7th graders, with 71.52% respondents; Vovinam Martial Art: for the 8th graders, with 73.07% respondents; Mini volleyball: for the 9th graders, with 73.05% respondentes.
g. Content for testing and assessment on physical strength had 100% respondents, including: Absfolding (93.09%-96.35%); Bounce (100%); 30m XPC run (89.64%-95.35%); 5 minute 5 faltlek (87.98%-95.35%)
h. Include traditional sport into regular curriculum (87.98%-93.26%): Tug of war: the 6th graders (72.56%); Push rod (73.07%): the 7th graders; Arbalester/shooting crossbow (72,54%): the 8th graders and Vovinam Martial Art: the 9th graders (73.07%).
i. Normal schedule for physical education class is arranged separately into 45 minutes/period (98.43%); 2 periods/week; on a different session from other subjects.
k. Each period deals with one specific contente as required or cordinated with physical strength excercise, with 87.98%-93.26% respondents.
l. The content is arranged respectively to arouse pupils' interest, with 84.41%-95.35% respondents.
m. The evaluation of the new content in the improved currciculum, depending on specific subject, is based on such criteria as implementing skill (96.9%); Regulation on pupils' academic evaluation and ranking No. 04/2005/QĐ-BGD-ĐT dated 16 Feb. 2005 by Ministry of Education and Training, with 100% respondents.
n. Strengthen and maintain order and discipline of break-time excercise in secondary school: Select and employ appropriate Aerobics with music, with 87.98%-96.6% respondents.

2.2. Enhancing form of extracurricular activities on sport for secondary school pupils

+ Form of training in sport and exercise club for pupils who are sport talented or school sport tea members.
+ Form of extracurricular activities on sport with instructor in break-time hours, with 100% respondents: Favorite elective sport (85.34%-94.33%).
+ Hoạt động Thể thao trong các buổi sinh hoạt đội, sao có 100% ý kiến : các trò chơi vận động yêu thích : Kéo co; Nhảy dây; Nhảy bao bố v.v…
  Cordinating sport activities in teambuilding sessions, with 100% respondents: favorite motor game: Tug of war;
+ Organizing sport competition in school and participate in sport competitions elsewhere, on occasions of Mar. 3rd, April 30th; May 1st, and Nov. 20th (96,66%-97,89%).

Conclusion

From the above-mentioned research findings, we identified orientation and requirements for improving form and content of sport and exercise training for secondary school pupils at the Central Highlands Vietnam, including: 13 items for improving regular physical education curriculum, and 04 items for forms of extracurricular activities on sport.

We think it is necessry to design content and form of sport and exercise training which is applicable and practical with specific secondary school pupils at the Central Highlands Vietnam, aiming at meeting the demands to improve effectiveness of physical education in secondary school system.

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Analysis on the Performances of Ethiopian and Kenyan athletes in IAAF World Championships

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Abstract

The purpose of the study was to analyse the performances of Ethiopian and Kenyan athletes in IAAF World Championships. There may be significant differences in performances of Kenyan male athletes than Ethiopian male athletes in the IAAF World Championships. There may not be significant differences in performances of Ethiopian female athletes than Kenyan female athletes in IAAF World Championships. The data collected for this study were through secondary sources and the census sampling was considered for collecting data. In order to find the differences in performances of these two countries, descriptive statistics and t-test were employed by Excel 2016 statistical tool packages. The results of the study showed that Kenyan male athletes performances were higher than Ethiopian male athletes performances in IAAF World Championships and the Ethiopian female athlete's performance were similar in line with Kenyan female athletes performances in the World Championships. Finally, the overall performances of Kenyan athletics team showed the dominant performances than Ethiopian athletic team in IAAF World Championships.

Keywords: Ethiopia, Kenya, Performances, World Championships

Introduction

It's a well-known fact that Ethiopians and Kenyans fixed the foot path strongly in distance races especially middle and Long in International arena. The countries have its own unique nature to produce the best runners in Olympics, World Championships, World Cross country races and other International events too. The training environment have its own demographic and biological merits viz. an elevation of 2000 meters above from sea level, obviously which favours for endurance athletes and the morphology of athletes are gifted by birth itself. Since 1990s, the globe observes the rise of North and East African runners in long distance events which witnessed the birth of a new rising star in the field of long distance running **(Jayaraman, 2016**). Kenyan and Ethiopian athletes, in particular, have since remained dominant in these events. Many factors have been proposed to explain the extraordinary success of the Kenyan and Ethiopian distance runners are predetermined physiology, genetics, nutritional aspects, strong morphological factors, well balanced psychological set up, scattered talents and most importantly an urge to boost their economic background. (**Wilber RL, and Pitsiladis YP, 2012)**

The IAAF World Championships, commonly referred to as the World Championships in Athletics, is a biennial athletics event organized by the International Association of Athletics Federations (IAAF). Originally held every four years, first in 1983, the current two-year cycle began in 1991. It is the first time an African country has led the medal table at the end of a major international athletics meeting. It is also a story of great consistency by the East African Nation in only the inaugural championships in 1983 in Finland did the country fail to pick up at least a gold medal (**Wikipedia, 2016**)

In an incredible show of dominance, the senior men's team race has been won by Ethiopia or Kenya every year since 1981 in both the short and long races. These nations have enjoyed a similar strangle-hold on the junior men's races since 1982. In the senior men's 12 km race, Kenya won the world championships for an astounding 18 years in a row, from 1986 through 2003, a record of unequaled international success. Likewise, on the women's side, only one other nation has won the long team race since 1991: Portugal, in 1994. These African nations were not quite so dominant in the short races, but they have won every women's junior race since its introduction in 1989. (**Wikipedia, 2016**)

Objectives

1. The first objective of the study was to analysis the performances of Ethiopian and Kenyan male athletes in IAAF World Championships.
2. The second objective of the study was to analysis the performances of Ethiopian and Kenyan female athletes in IAAF World Championships
3. The third objective of the study was to analysis the performances of Ethiopian and Kenyan athletics teams in IAAF World Championships.

Methodology

The source of data for this study was exclusively secondary data. It means all the data collected and used for this study were the e- sources. The census sampling method was used to collect data. The data were collected based on three categories such as Ethiopian and Kenyan male performances at **IAAF World Championships,** Ethiopian and Kenyan female Performances **IAAF World Championships,** Combined Ethiopian and Kenyan athletic team performances at **IAAF World Championships.**

Statistical Analysis

The descriptive statistics and t-test were used as statistical tools to find out the significant differences between Ethiopia and Kenya. The Level of significance was set at 0.05 for testing the significance differences if any. The Excel 2016 statistical tool packages were used to find the differences in performances of these two East African countries.

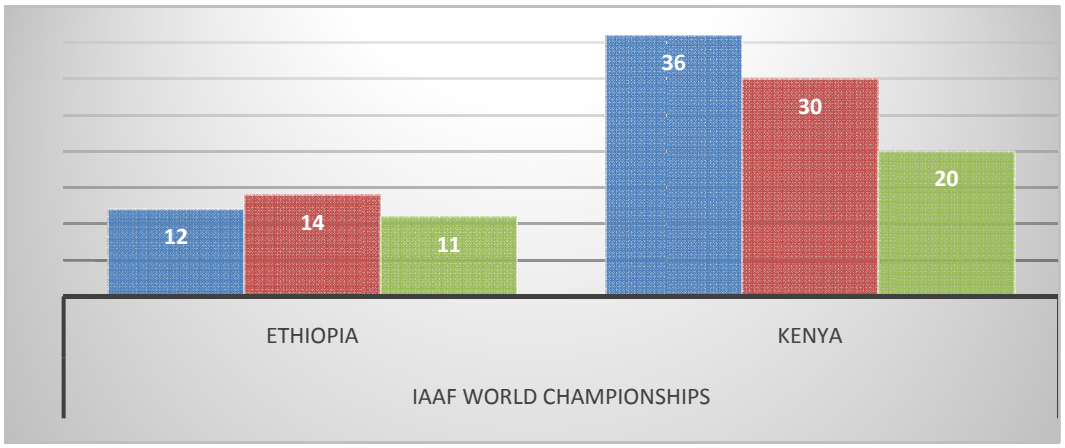
Analysis of the study

Table 1. The Performances of Ethiopian and Kenyans male athletes at the IAAF World Championships Since 1983 till 2015

Country	Gold	Silver	Bronze	Total	X	SD	Computed T-Value	Table t-Value
Ethiopia	12	14	11	37	12.33	1.53	-3.44	2.78
Kenya	36	30	20	86	28.67	8.08		

Significant at 0.05 level

Table 1. shows that the total no. of medals obtained by Ethiopian males are 37 whereas 86 for Kenyan team. Thus, the mean and standard deviation of two countries are 12.33 and 1.573 and 28.67 and 8.08. Since, the computed T-value is greater than the table t-value, it is clearly designated that there was a significant difference in the performances of Kenya and Ethiopia. The result exhibited that Kenyan males performances were higher than the Ethiopian males performances at IAAF World Championships.



The columns indicate that the Gold, Silver and Bronze Medals from Left)

Figure 1. The Overall Performances of Ethiopian and Kenyan Male athletes at IAAF World

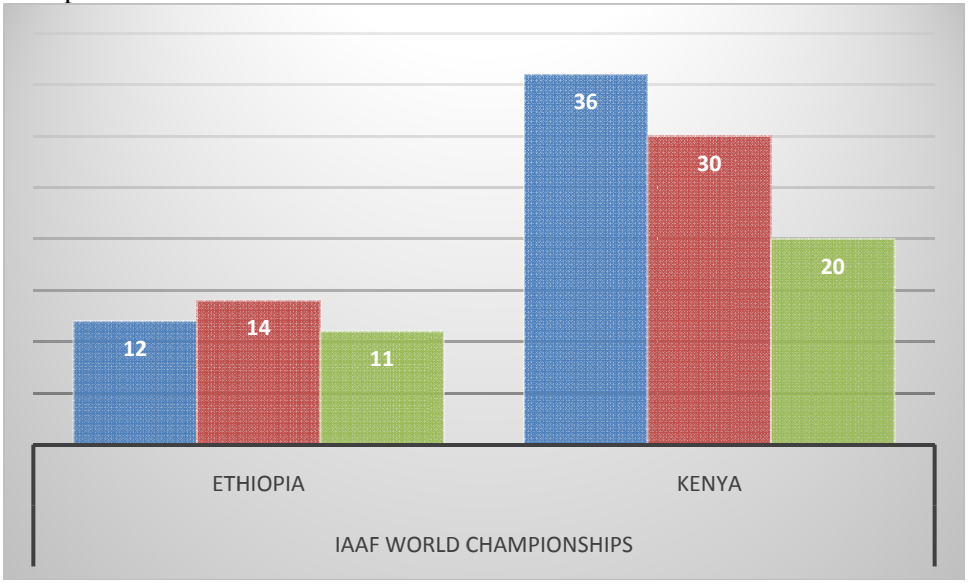
Championships.

Table 2. The Performances of Ethiopian and Kenyans females at the IAAF World Championships Since 1983 till 2015

Country	Gold	Silver	Bronze	Total	X	SD	Computed T-Value	Table t-Value
Ethiopia	13	8	14	35	11.67	3.21	-1.20	2.78
Kenya	14	13	15	42	14.00	1.00		

Significant at 0.05 level

Table 2. shows that the total no. of medals achieved by Ethiopian females are 35 whereas 42 for Kenyan team. Thus, the mean and standard deviation of two countries are 11.67 and 3.21 and 14.00 and 1.00. Since, the computed T-value lies in the range of the table t-value, there was no significant difference in the female performances of Kenya and Ethiopia performances at IAAF World Championships.



(The columns indicate that the Gold, Silver and Bronze Medals from Left)

Figure 2. The Overall Performances of Ethiopian and Kenyan female athletes at IAAF World Championships.

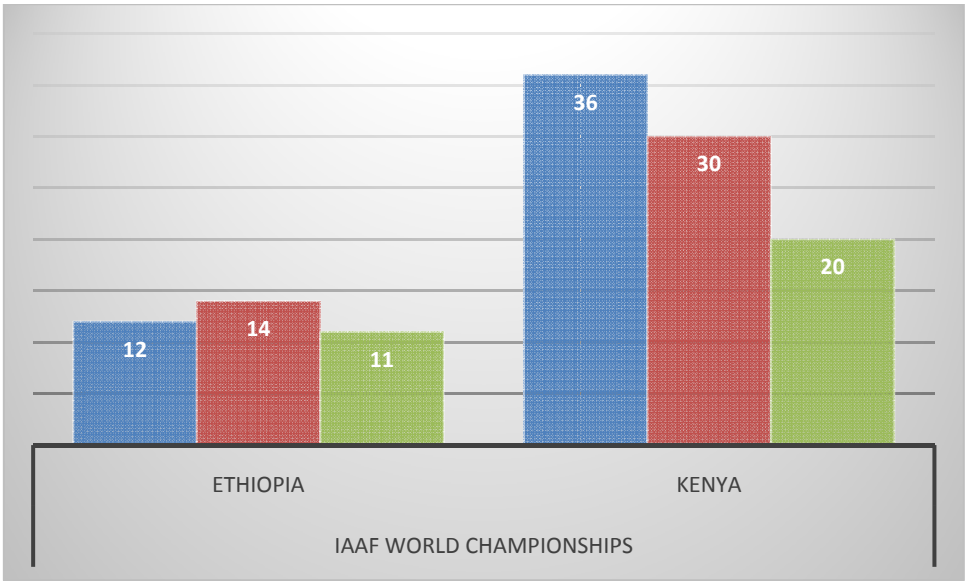
Table 3. The Performances of Ethiopian and Kenyan athletic team at IAAF World Championships Since 1983 till 2015

Country	Gold	Silver	Bronze	Total	X	SD	Computed T-Value	Table t-Value
Ethiopia	25	22	25	72	24	1.73	-4.20	2.78
Kenya	50	43	35	128	42.67	7.51		

Significant at 0.05 level

Table 3 shows that the total no. of medals received by Ethiopian team are 72 whereas 128 for Kenyan team. Thus, the mean and standard deviation of two countries are 24 and 1.73 and 42.67 and 7.51. Since, the computed T-value is greater than the table t-value, it is clearly specified that there was a significant difference in the performances of Kenya and Ethiopia. The result exhibited that Kenyan athletic team performances were higher than the Ethiopian athletic performances at IAAF World

Championships.



(The columns indicate that the Gold, Silver and Bronze Medals from Left)

Figure 3. The Overall Performances of Ethiopian and Kenyan athletic teams at IAAF World Championships.

Conclusions

The following conclusion were drawn from the results of the study.

1. The Performances of Kenyan male athletes were faster than Ethiopian male athletes at the IAAF World Championships from 1983 to 2015.
2. The performances of Ethiopian female athletes were parallel with Kenyan female athletes performance at the IAAF World Championships.
3. Kenyan Athletic Team (Men& Women) Performances were dominant than Ethiopian athletic team (Men& Women) Performances at IAAF World Championships Since 1983 till 2015.

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Effect of Six Weeks Meditation Practices on Self-Confidence between Under Graduate Football Players

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Abstract:

The motivation behind the present study was to discover the effect of reflection practices on fearlessness between under graduate football players. For accomplishing the motivation behind the study aggregate of 50 boys buries inter-collegiate football players were selected from B.N.N. College (Arts, Sci. & Com.), Bhiwandi. Their age between 17 to 21 years and them chose subjects were divide in two groups just as with 25 each as control and experiment group. All they chose subjects were spoken to for their college participated in Mumbai university inter-collegiate competitions and every one of them utilized football span of two hours daily, excluding Sunday. The trail gathering experienced meditation rehearse in a calendar of week by week three days with one hour session each in the morning. The preparation period was six weeks.. The measurable research of the study uncovered that the test gathering done the reflection hones essentially enhanced the fearlessness level.

Keywords: Meditation practice, Self-confidence

Introduction:

Players are confronting with numerous difficulties and it incorporates their physical, mental, specialized and strategic aptitudes. The first class level of games execution requires complete mental planning. The self-assurance is a critical mental quality needed for the sportsperson to beat the upsetting circumstance. Football players must to have solid psychic force to overcome numerous mental obstructions amid the match. Every day player's effort to enhance these aptitudes by numerous means and techniques. Reflection has turned into an acknowledged piece of the preparation regimen to enhance psychic forces. Reflection is turning into typical piece of the readiness and workout schedules in all the games and recreation. Fearlessness is the certainty you have in yourself. It is a key to achievement. To success in any sorts of work, fearlessness assumes a key part. It is amazingly critical in very nearly every part of our lives. It assumes a critical part of our life about who we are and how we convey ourselves. Individuals who need self-assurance are less inclined to attain to their objectives and it turns into a hindrance in the middle of them and their prosperity. It likewise has a significant effect on your social life. "Self-certainty is an individual's conviction that he or she can succeed. Players who are fearless and hope two succeed frequently do succeed" Williams. "Trust in oneself and in ones forces and abilities" Merriam Webster.

Self-confidence is the confidence one has in oneself, one's knowledge and one's ability.it is the confidence of the type 'I can do this' or 'I have the ability to do this'. Self-confidence is the one thing that is much more important many other abilities and traits. If you do not have the self-confidence that you do will never become fruitful at all. The fruits of what you do without self-confidence are lost. Genuine self-confidence is the forerunner achievements. Self-confidence integrates the powers of mind and body and focus them towards the goal. There are certain moments during competition that appear to carry great psychological significance, when the momentum starts to shift in one direction or another. These situation require athlete to remain completely focused and calm in the face of difficult circumstance. Loehr emphasized that athletes and coaches felt that at least fifty percent success is due to psychological factors that reflect self-confidence. Everybody is accept that meditation can improve the co-ordination between the body and mind. Meditation is the great exercise for body and mind. It is highly useful to control mind, improve concentration and to relax the body. Meditation helps to reduce stress and anxiety, cultivate self-confidence and self-belief. Meditation plays a key role in cultivating mind control and concentration which helps sportsperson to perform

their best. The present study was undertaken the sole aim to find out the effect of meditation practice on self-confidence between football players.

Methodology :

Selection of Samples:

A sample of 50 football players (subject)in the age group 17 to21 years was selected from B.N.N. College (Arts, Sci. & Com.), Bhiwandi, Dist. Thane, Maharashtra. Those were divided in to two similar groups with 25 each as control and experimental group.

Training Method:

The subjects were used to practice football training for duration of two hours every day in the evening excluding Sunday. The training period was six weeks. Apart from football training the experimental group underwent meditation practice in a schedule of weekly three days with one hour in the morning. The meditation practice includes breath meditation, OM canting and two pranayam technic.

Data Collection:

The test was conducted on self confidence using by Rekha Agnihotri's self-confidence scale. This consists of 56 statements. Each item has the response category, which is true or false. It consists of 35 positive and 21 negative statements. The total score constitutes the self-confidence score. The correct answer will be awarded one mark each. Higher the score indicates higher self-confidence. The statistical tools used were Mean , standard deviation and Z-test for difference between means was used.

Result and Interpretation:

The hypothesis tested was H_0 : There is no significant difference between average score of players at pre-test and post-test.(Meditation does not improve self confidence)

H_1: Average score of Post –test is more than Average score of Pre-test.(i.e. Meditation improves self confidence).

The statistical analysis of data on self-confidence collected from experimental and control group have been presented in the table.

Table:-

	No. of players	**Average score**	**Standard deviation of scores**
Pre test	25	31.8	4.885079
Post test	25	45.7	4.906037

Standard Error of difference in means = 4.99652

Z- statistic (Zcalculated) = 2.781936

Critical value of Z for 5 % level of significance = 1.64 and

for 1% level of significance =2.33

Conclusion: Since Z-calculated is > Z-critical, H_0 is rejected. Hence H_1 is accepted.

The result of the study indicates that there was a significant improvement on Self-confidence due to six weeks meditation practice between the football players.

On the basis of the above study and result can be concluded as the follow:

- Right meditation practice for self-confidence of football players significantly improved.
- Further the result of the above study indicated that the meditation practice also included the training schedule of football players which are essential to get success.

Recommendation:

The following recommendations have been forwarded in the light of present study.

- The study recommends that the meditation training can be use to improve the Self-confidence among the girls.

- The study also recommends that the meditation training can be use to improve the Self-confidence among other games players.
- It can also recommends that the meditation training can be use to improve the Self-confidence among peoples and students.

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