साधनम्

techniques & training

excellence in sports

Vol. 3, 2021

Official Publication
LNIPE, NERC
Guwahati, India

Mr. Narendra Modi
Prime Minister

सत्यमेव जयते

MESSAGE

I am happy to know that Lakshmibai National Institute of Physical Education, North East Regional Centre (LNIPE, NERC) is releasing the first issue of ' International Journal of Physical Education and Applied Exercise Science' and Sports Magazine 'Technique and Training-for Excellence in Sports' in the month of February, 2015.

I extend good wishes to the LNIPE, NERC for the successful launching of the First issue of the Journal.

(NARENDRA MODI)

Narendra Modi
Prime Minister of India

सत्यमेव जयते

1598

राज्य मंत्री (स्वतंत्र प्रभार)
युवा कार्यक्रम और खेल मंत्रालय,
भारत सरकार
MINISTER OF STATE (IC)
YOUTH AFFAIRS AND SPORTS
GOVERNMENT OF INDIA

24 FEB 2015

MESSAGE

I am happy to know that Lakshmibai National Institute of Physical Education, North-East Regional Centre (NERC) is releasing the regular issue of 'International Journal of Physical Education and Applied Exercise Sciences' and Sports Magazine 'Technique and training-excellence in Sports' on the occasion of 6th Foundation day on 4th November 2015.

I congratulation the LNIPE, NERC for their continuous efforts in disseminating the useful information for the research scholars, faculty and others related to Sports and Physical Education.

I wish a successful launch of the International Journal and Sports magazine.

(SARBANANDA SONOWAL)

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Sarbananda Sonowal
Minister of Youth Affairs and Sports
Government of India

Rajiv Yadav, *IAS*
Secretary

Rajiv Yadav, I.A.S.
Secretary

सत्यमेव जयते

खेल विभाग
शास्त्री भवन, डॉ० राजेन्द्र प्रसाद रोड
नई दिल्ली-११० ००१
Department of Sports
Shastri Bhavan, New Delhi-110001

Message

I am extremely happy to know that Lakshmibai National Institute of Physical Education (LNIPE), North-East Regional Centre, Guwahati, Assam is launching its second issue of "International Journal of Physical Education and Applied Exercise Sciences" and second issue of Sports magazine "Technique & training-excellence in Sports" on 4th November, 2015 on the occasion of foundation day.

I hope this academic and professional endeavour of LNIPE faculty will encourage highest level of research standard and professional discourse.

I wish the Journal great success.

29/10/15

(Rajiv Yadav)

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Dr. Satpal Yadav

Editor Magazine

लक्ष्मीबाई राष्ट्रीय शारीरिक शिक्षा संस्थान, गुवाहाटी
(उत्तर–पूर्व क्षेत्रीय केन्द्र)
(युवा कार्यक्रम एवं खेल मंत्रालय)

Lakshmibai National Institute of Physical Education, Guwahati
(North-East Regional Centre)
(Ministry of Youth Affairs & Sports, Govt. of India)

Dr. Satpal Yadav
Ph.D., M.Phil (Sports Biomechanics), M.P.E., B.P.E.
NET-JRF-UGC Qualified

Declared under Section 3 of the UGC Act, 1956 vide GOI, Ministry of HRD
www.lnipe.gov.in

Lakshmibai National Institute of Physical Education, North East Regional Centre is a unique experiment in quality professional education and has already made a significant impact on the academic, research and Sports milieu of our country. The institute's magazine is a mirror of its academic, Historical moments, great achievements by Lnipian's, Characteristics hallmark of LNIPE and extra-curricular life. The second purpose of an institute's magazine is to provide a forum to Research in sports committed scholars, researchers and sports scientist leap into the 21st century. The present endeavor is a tribute to the holy symbol of Lakshmibai National Institute of Physical Education, NERC as the same was long precious aspiration. At the same time, institute's faculty get a chance to share their knowledge and expertise with the students in a different forum outside the walls of a classroom.

As a member of the editorial team of this magazine, it is my proud privilege to mention that a lot of effort has gone into preparing the ground work for this publication. The faculty editorial team has left no stone unturned to make this venture a success. The student's editorial team has also taken great pains to enrich the volume and procure a bulk of very good submissions for publication in this volume.

The guidance of the Honourable Chairman Prof. L. N. Sarkar, Registrar, LNIPE and Dean Prof. Biswajit Basumatary, LNIPE, NERC always remained available to us. We are highly indebted to them.

We trust the magazine will be liked by the delegates, faculty and the students. With their support and guidance, we can assure that future volumes of the magazine will be better and will continue to grab the attention of its readers.

(Dr. Satpal Yadav)

Editor Magazine

It's not whether you get knocked down; it's whether you get up.

—Vince Lombardi

"When you're riding, only the race in which you're riding is important."

—Bill Shoemaker

Age is no barrier. It's a limitation you put on your mind.

—Jackie Joyner-Kersee

I always felt that my greatest asset was not my physical ability, it was my mental ability.

—Bruce Jenner

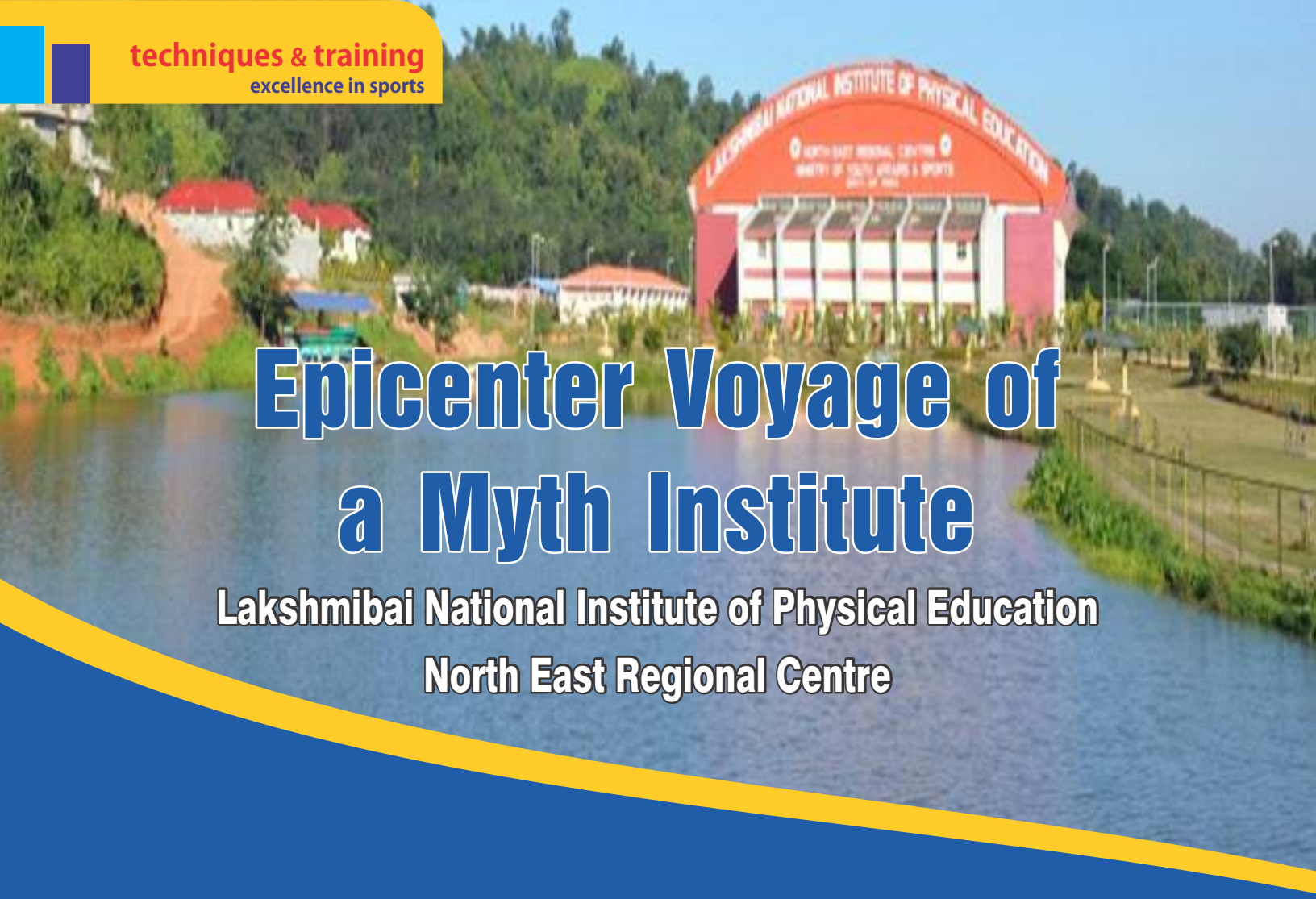
"A trophy carries dust. Memories last forever."

—Mary Lou Retton

"Number one is just to gain a passion for running. To love the morning, to love the trail, to love the pace on the track. And if some kid gets really good at it, that's cool too."

— Pat Tyson

Editorial Board



Epicenter Voyage of a Myth Institute

Lakshmibai National Institute of Physical Education

North East Regional Centre

Lakshmibai National Institute of Physical Education, NERC is amongst the most admired centres of world-class education to foster academic excellence, physical fitness and research in sports committed to helping scholars, researchers and sports scientists to leap into the 21st century. The present endeavour is a tribute to the holy symbol of **Lakshmibai National Institute of Physical Education, NERC as the same was long precious aspiration.** Lakshmibai National Institute of Physical Education, North-East Regional Centre, Sonapur Guwahati (Assam) was established in July 2010. This Institute is the North-East Chapter of LNIPE based at Gwalior (M.P.). The Lakshmibai National Institute of Physical Education was established in the year 1957 and presently it is governed by the Union Ministry of Youth Affairs & Sports, Govt. of India. The North-East campus at Lakshmibai National Institute of Physical Education, NERC, Guwahati was established with Memorandum of Understanding (MoU) between Govt. of Assam and Union Ministry of Youth Affairs & Sports. The LNIPE, NERC Guwahati is located at Tepesia Sports Complex, Sonapur (Assam) on the outskirts of Guwahati city at half a kilometre distance from Guwahati-Dimapur Road, NH-37. The Institute for LNIPE was once the site of 33rd National Games held in 2007 by Govt. of Assam. The institute at present runs the undergraduate degree course with its objective to upgrade professionals of Physical Education ensuring to produce quality teachers and leadership skill in Physical Education.

The campus is lush green with neat roads lined with Jacaranda, Palm tree and Coconut trees.

The Institute has all the standard sports infrastructure with modern training gadgets which are well maintained to provide teaching and coaching facilities and also to stage first class tournaments. Besides having a regular human performance research & training laboratory, the complex includes cricket pitches with bowling machine facilities, 400 m track, outdoor Swimming Pool, Multipurpose Gymnasium, Basketball, Volleyball, Football and Hockey fields. The swimming pool caters not only to the needs of the Institute, but also serves to the school children of greater Guwahati during summer vacation. Others facilities are also liberally used as part of the community service programmes.

The magnificent three-storied Academic Building of the Institute is situated at the West end of the Institute. It is an artist's delight in engineering and it has three components in its complex; administrative cum-teaching, research block and seminar/ conference halls.

The teaching wing has spacious lecture halls, faculty cubicles, seminar/ conference rooms etc., all built around a lush green quadrangle bordered with flowers beds along the stone pavement. Administrative wing houses all the offices. The Institute has sophisticated human performance, physiology, sports psychology, computer and biomechanics laboratories which are used extensively by the students and teachers for their research purpose.

Editorial

Every new beginning starts with great expectations as well as apprehensions too. Nevertheless, the first most important step needs to be taken during all possible difficulties. But as the first step is taken, consequently steps follow which lead to success in the venture understanding.

The inception of North East Regional Centre of LNIPE started with first batch intake of 28 students in the Gwalior campus itself in the year 2009 July. In the year 2010, the very next year, it was located at Tepesia, Sonapur, Guwahati.

Within a span of four years the institute has phenomenally ascertained its development on a very sound foundation, rising the Institute to its occasion in every aspect that was the characteristic hallmark of LNIPE and LNIPIANS. The traditions, habit, sacrifice and meticulous planning of LNIPE fraternity, administrative faculty and students in subsequent years ensured establishment, development and qualitative rise of Institute in right direction.

TECHNIQUES & TRAINING
FOR EXCELLENCE IN SPORTS

MISSION STATEMENT

***Technique & Training* Magazine** will be the magazine of choice for fans and athletes involved in sports. Its purpose is to entertain and inform so that our readers can become involved with the drama of competition involving in sports. *Technique & Training* will deliver the finest editorial and action-based photo journalism possible, with a staff-team focussed on serving the needs of our readers while also achieving personal and professional growth. *Technique & Training* will far exceed the expectations of an untapped market segment eager for the positive, active portrayal of outstanding athletes.

ABOUT *TECHNIQUES & TRAINING*

First publication of *Techniques & Training* is dedicated to going beyond scores and statistics with in-depth features that highlight the athletes and stories across all sports that give meaning to the game. The magazine holds the distinction of being one of the first to recognize the popularity of professional games and sports in India, and its valued scouting reports and recruiting coverage has enhanced the following of that sport.

This year, preview issues are published for all major sports, such as College Football, College Track & Field, Handball, Boxing, Canoeing and Kayaking, Hockey, Weightlifting, Basketball and Cricket. The magazine regularly covers both college and professional sports for both men and women throughout the year. The bi-annually multicoloured sports magazine in LNIPE, India, *Techniques and Training* features stunning photography, as well.

Launching of the first publication in 2015, sports fans looking for authoritative coverage of their favourite sports and the big games in all of them would enjoy a subscription to *Techniques & Training Magazine***!**

Issues per Year: 4

INTRODUCTION

The Lakshmibai National University of Physical Education was established initially as a College on17th August 1957, the centenary year of the War of India's Independence. The Institute is located at Gwalior, where Rani Lakshmibai of Jhansi had laid down her life for the country's Freedom Struggle. In recognition of the services rendered by the Institute in the field of Physical Education and Sports, it had been upgraded to "Deemed University status" in 1995. The Institute is an autonomous organization under administrative control of Ministry of Youth Affairs & Sports, Government of India and registered under the M.P. Societies Registration Act, 1973.

OBJECTIVES

Objectives of the University

- To prepare highly qualified teachers and leaders in the field of Physical Education and Sports.
- To serve as a Centre of Excellence and Innovation in Physical Education and to undertake, promote and disseminate research in this field.
- To provide professional and academic leadership to other institutes in the field of Physical Education.
- To provide vocational guidance and placement services to the professionals in this field.
- To promote mass-participation in Physical Education and Sports.
- To develop and promote programmes of Physical Education and Sports in the country.
- To encourage and produce scientific contemporary literature in the field of Physical Educational Sports.
- To provide community services in the field of Physical Education and Sports.

Techniques & Training is published quarterly in February, May, August and November by the Lakshmibai National Institute of Physical Education, North East Regional Centre, Guwahati, India.

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Wellness Lifestyle of Adolescents

A Survey

Dr. Susant Kumar Panda*

Abstract

A study was undertaken in the name of "A Survey of Wellness Lifestyle of the Students of Lovely Professional University, Punjab".A total of 100 male students from various departments had served as subjects for this study. The objective of the study was to see the wellness lifestyle of the students of various departments, on the basis of their lifestyle. A questionnaire was given to the students, containing 36 questions.The questionnaire was based on the wellness lifestyle to assess the health status of the subjects. Through this questionnaire, 9 variables like, health-related fitness, nutrition, avoiding chemical dependency, stress management, personal hygiene/health, disease prevention, emotional wellbeing, personal safety, environmental health and protection were assessed. Descriptive statistics (pie diagram and percentage) was used to assess the data where we explained the data through pie diagram. On the basis of data obtained from the students, 9 variables related to wellness lifestyle has been studied. It showed that 68% students were in excellent and good category and 32% of the students needed improvement. Thus,students were aware about the importance of health and wellness in their lives and paid proper attention to it. But there is a room for improvement. Even small changes can often help you achieve better health.

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Introduction

Health practices are being followed by us for a long time. Good health practices are the life-generating forces for the advancement of civilization. A nation stands firm if its people follow the desirable health practices in their day-to-day life. Since the school-going children and youth happen to be the future citizens of a nation, they certainly need to be educated the basic hygienic practices for their healthy and happy life in particular, and for a healthy nation, in general. On the other hand, poor hygienic practices account for a large number of diseases and deficiencies.

Purpose

The purpose of the study was to see the wellness lifestyle of the students ofLovely Professional University, Punjab.

Methods

A total of 100 male students from various departments of Lovely Professional University, Punjab served as subjects for this study. Age of the subjects ranged from 18–25 years. Single group design was used for this study. A questionnaire was given to the students, containing 36 questions. Questionnaire was developed by Wener W.K. Hoeger. The questionnaire was based on the lifestyle and having its aim to assess the health status of the individuals. Through this questionnaire, we assessed nine variables like health-related fitness, nutrition, avoiding chemical dependency, stress management, personal hygiene/ health, disease prevention, emotional well-being, personal safety, environmental health and protection.

Scoring was done according to the responses of the subjects.

1) **Excellent (E)**: If a subject secured 17 or more marks under each factor. This shows that subjects were aware of the importance of this category to their health and wellness. They put their knowledge to work for themselves by practicing good habits.

2) Good (G): If a subject secured between 13 to 16 marks under each factor, it shows that his practices in this area were good, but there was room for improvement.

3)Needs Improvement (NI): If a subject secured between 4 to 12 marks under each factor, it shows that he took serious and unnecessary risks with his health. Most likely, he needed additional information and help in deciding how to successfully make the changes in his desire.

There were five point rating scale:

1.	Always	-	5 points
2.	Nearly always	-	4 points
3.	Often	-	3 points
4.	Seldom	-	2 points
5.	Never	-	1 point

Thus the lowest score would be 4 and highest score would be 20 in each factor.

Descriptive Statistics (pie diagram and percentage) were used to describe each factor of the lifestyle of students of Lovely Professional University, Punjab.

RESULTS

1. Health-related fitness

Health-related fitness means that an individual is sound in body, mind or spirit; free from physical disease or pain, and do some physical workout so that he may be able to do the daily task of living effectively. Under this variable 7% students were found under **excellent (E)** category, 23% students were found under **good (G)** category and 70% students were found under **needs improvement (NI)** category.

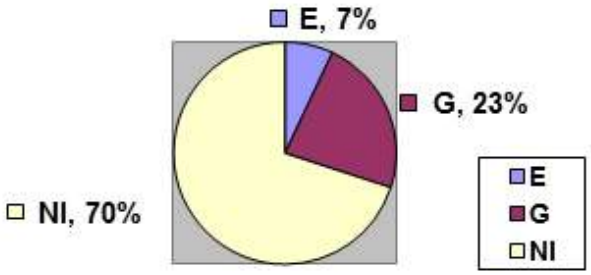

Fig.1: Pie Diagram of Health-related Fitness of Students of Lovely Professional University, Punjab

2. Nutrition

Nutrition, may be defined as the science of food and its relationship to health. It is concerned primarily with the part played by nutrients in body growth, development and maintenance. The word nutrient or "food factor" is used for specific dietary constituents such as proteins, vitamins and minerals. Under this variable 1% students were found under **excellent (E)** category, 34% students were found under **good (G)** category and 65% students were found under **needs improvement (NI)** category.

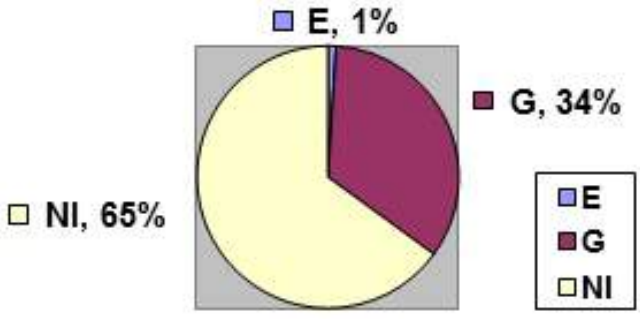

Fig. 2: Pie Diagram of Nutrition of Students of Lovely Professional University, Punjab

3. Avoiding Chemical Dependency

Avoiding chemical dependency means that we should avoid the use of such chemicals like cigarette, tobacco, alcohol, addictive drugs or needles and do not make a habit of using these drugs/chemical regularly. Under this variable 66% students were found under **excellent (E)** category, 29% students were found under **good (G)** category and 5% students were found under **needs improvement (NI)** category.

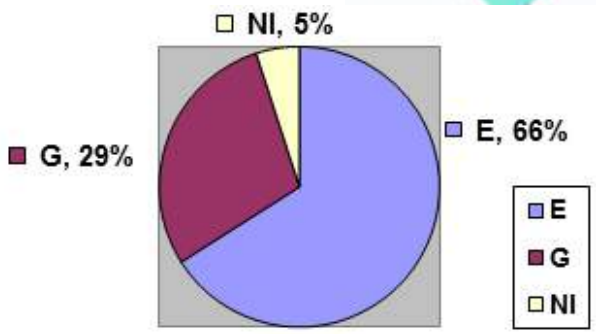

Fig. 3: Pie diagram of avoiding chemical dependency of students of Lovely Professional University, Punjab

4. Stress Management

Stress management means the state of being tensed due to various problems of life and capable to effectively deal with those problems and live a healthier life. Under this variable, 26% students were found under **excellent (E)** category,54% students were found under **good (G)** category and 20% students were found under **needs improvement (NI)** category.

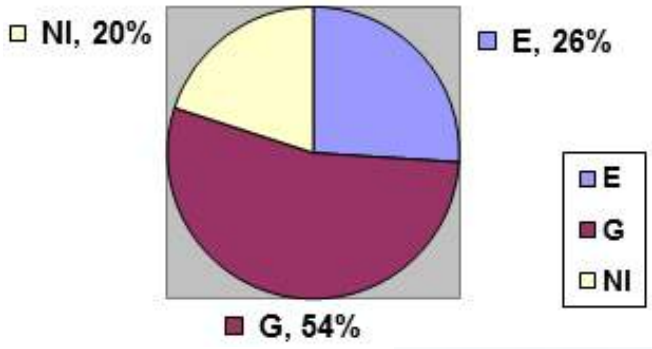

Fig.4 pie diagram of stress management of students of Lovely Professional University, Punjab

5. Personal Hygiene/ Health

Personal Hygiene/ Healthis a branch of science which deals with the cleanliness. Personal hygiene deals with the personal cleaning and how the individual keeps himself/ herself clean. It deals with the preventive and curative aspects related to health.

Under this variable, 41% students were found under **excellent (E)** category, 37% students were found under **good (G)** category and 22% students were found under **needs improvement (NI)** category.

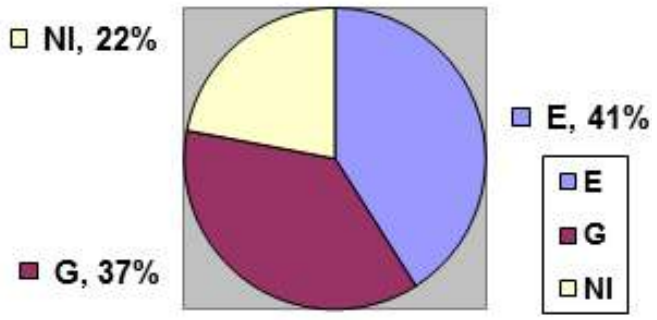

Fig.5 pie diagram of personal hygiene/health of students of Devi Ahilya University, Indore.

6. Disease Prevention

Disease Prevention is a condition in which body health is impaired, a departure from the state of health, an alteration of the human body interrupting the performance of vital functions An individual has to make use of preventive aspect of disease. An individual should do regular exercise and workouts so that he may be able to prevent various diseases.

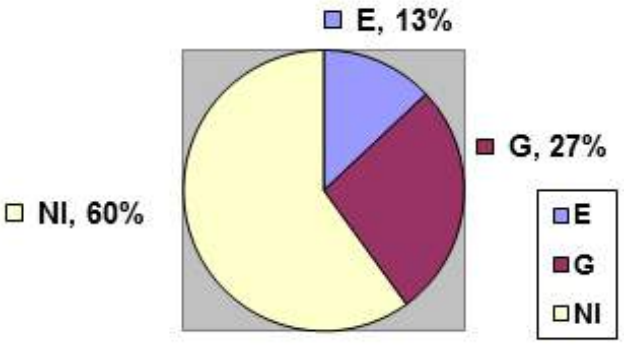

Fig. 6 pie diagram of disease prevention of students of Lovely Professional University, Punjab

Under this variable, 13% students were found under **excellent (E)** category, 27% students were found under **good (G)** category and 60% students were found under **needs improvement (NI)** category.

7. Emotional Wellbeing

According to M.C. Dougall, "Emotions are the psycho-physiological reactions through which instinctive organismic energy finds expression." Emotional wellbeing means an individual is capable to maintain his physical and psychological state of mind during different conditions like fear, anger, distress, depression, loneliness etc.

Under this variable, 45% students were found under **excellent (E)** category, 51% students were found under **good (G)** category and 4% students were found under **needs improvement (NI)** cate

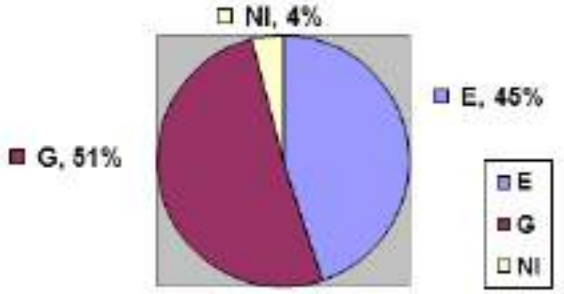

Fig.7 Pie diagram of emotional wellbeing of students of Lovely Professional University, Punjab

8. Personal Safety

Personal Safety refers to the various precautions that is taken by an individual to protect himself from accidents while driving car and riding bike etc. It is an important factor for an individual which determines his wellness.

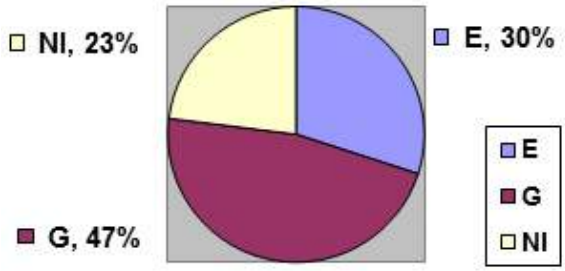

Fig. 8 pie diagram of personal safety of students of Lovely Professional University, Punjab

Under this variable, 30% students were found under **excellent (E)** category, 47% students were found under **good (G)** category and 23% students were found under **needs improvement (NI)** category.

9. Environmental Health and Protection

Environmental Health and Protection means that we should be careful about our environment. We have to minimize various environmental pollutants and try to minimize pollution. We should work and live in a clean and healthy environment. We have to protect our environment.

Under this variable 43% students were found under **excellent (E)** category,29% students were found under **good (G)** category and 18% students were found under **needs improvement (NI)** category.

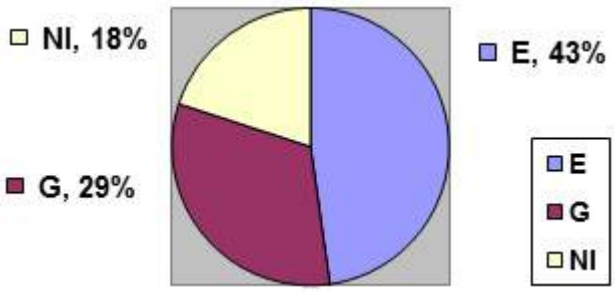

Fig.9 pie diagram of environmental health and protection of students of Lovely Professional University, Punjab

10. Overall Wellness Lifestyle

The researcher also studied the overall wellness lifestyle of the students. This includes all the above nine variables and data of all 100 subjects were analyzed. According to the findings, 30.22% students were found **excellent (E)**, 37.88% students were found **good (G)** and 31.88% students were found in**need improvement (NI)**.

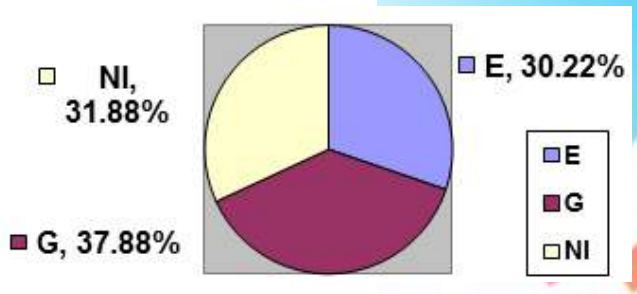

Fig.10 pie diagram of overall wellness lifestyle of students of Lovely Professional University, Punjab

Discussion of Findings

On the basis of data obtained from 100 students of Devi Ahilya University, Indore, on 9 variables related to wellness lifestyle, the overall wellness lifestyle was analyzed. It shows that 30.22% students were fall under excellent category, 37.88% students were fall under good category and 31.88% students were fall under needs improvement category.

It is concluded that 68% students were in excellent and good category and 32% students needs improvement. Thus the students were aware about the importance of health and wellness in their lives and pay proper attention on it. But there is a room for improvement. Even small changes can often help to achieve better health.

CONCLUSIONS

From the findings of the study it was concluded that:

1. In the variables like health-related fitness, nutrition, disease prevention the student's needs improvement. Even small changes can often help you to achieve better health.
2. In the variables like avoiding chemical dependency, stress management, personal hygiene/health, emotional wellbeing, personal safety, environmental health and protection the students were excellent and good in these categories.
3. On the basis of overall findings, it was concluded that 68% students were in excellent and good category and 32% student's needs improvement. Thus the student's were aware about the importance of health and wellness in their lives and pay proper attention on it. But there is a room for improvement even small changes can often help you to achieve

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"You have to do something in your life that is honorable and not cowardly if you are to live in peace with yourself." *—Larry Brown*

"There may be people that have more talent than you, but theres no excuse for anyone to work harder than you do." *—Derek Jeter*

"There may be people that have more talent than you, but theres no excuse for anyone to work harder than you do." *—Derek Jeter*

"Baseball is the only field of endeavor where a man can succeed three times out of ten and be considered a good performer." *—Ted Williams*

"One man practicing sportsmanship is far better than 50 preaching it." *—Knute Rockne*

VERITAS

Stagger Marking

An Alternative Method

Objective: To find out easier method of Stagger marking in a standard track

Mr. Samar Mandal*

Introduction

I am here to present a paper, on "An Alternative Method of Stagger Marking". I, now, present the new approach in 'Stagger distance marking' which follows straight line instead of the curve line followed earlier.

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Straight Stagger Distance

Definition: The straight distance between two end points of stagger curve is called straight stagger distance.

AB = Straight Stagger Distance (Figure 1)

If 's' and 'r' be the stagger distance and running distance radius respectively then straight stagger distance is

D= 2r Sin(s/2r)

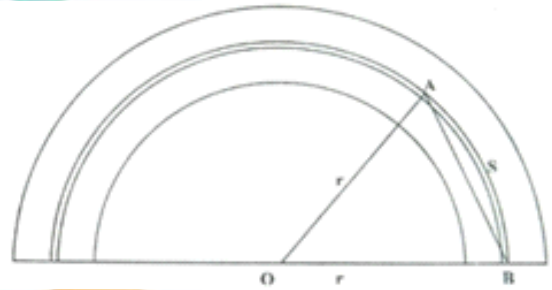


figure 1

Proof:

As in the Figure2,
r=running distance radius, s=Stagger distance
D=AB=Straight Stagger Distance
Now, $\text{Sin}(\theta/2) = AC/OA = \frac{D/2}{r}$
Therefore, $D = 2r \text{ Sin}(s/2r)\ [\theta = s/r]$

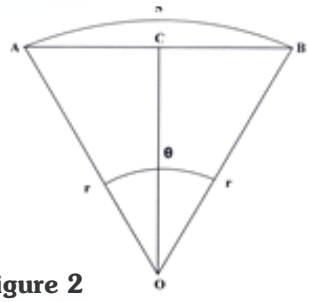


figure 2

Chord Stagger Distance

Definition: In a multi-lane track, the chord distance formed by the small circle and the two radii of the Stagger Distance is called the Chord Stagger Distance.

CD = Chord Stagger Distance

As in Figure 4,

AB = Straight Stagger Distance

CD = Chord Stagger Distance

OB=OA= Running Distance Radius

Now, CD / AB = OC / OA

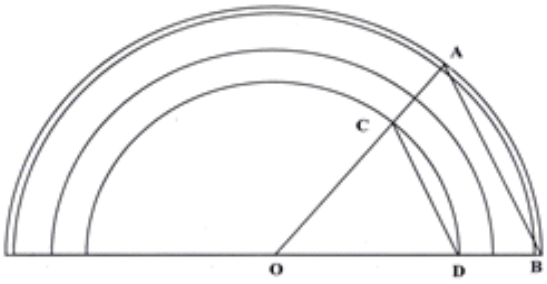


figure 3

Therefore, $CD = \frac{AB \times OC}{OA}$

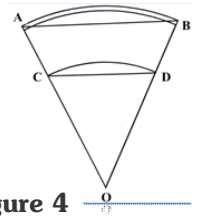


figure 4

Diagonal Stagger Distance

Definition: The diagonal of the trapezium formed by the two radii is of the stagger distance, chord stagger distance and straight stagger distance is called the diagonal stagger distance.

As in the Figure 5,

OA = OB = Running Distance Radius

OC = OD = Curve Distance Radius (1st Lane)

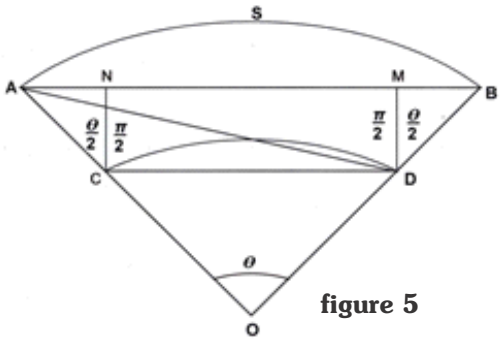
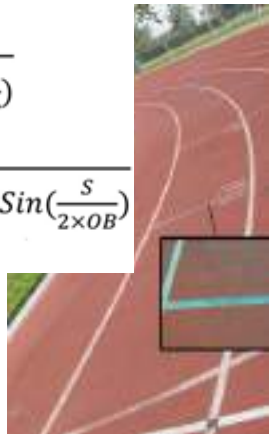


figure 5

$$AD^2 = AC^2 + CD^2 + 2AC \times CD \text{ Sin } \theta/2$$

$$AD = \sqrt{AC^2 + CD^2 + 2AC \times CD \text{ Sin}(\frac{S}{2r})}$$

$$= \sqrt{AC^2 + CD^2 + 2AC \times CD \text{ Sin}(\frac{S}{2 \times OB})}$$



Lane-wise Diagonal Stagger Distance

1st Lane – NIL , 2nd Lane – PQ , 3rd Lane – PR , 4th Lane – PS , 5th Lane – PT , 6th Lane – PU , 7th Lane – PV , 8th Lane – PW.

Lane-wise Chord Stagger Distance

1st Lane – NIL , 2nd Lane – PG , 3rd Lane – PF , 4th Lane – PE , 5th Lane – PD , 6th Lane – PC , 7th Lane – PB , 8th Lane – PA.

Lane-wise Straight Stagger Distance

1st Lane – NIL, 2nd Lane – P2Q, 3rd Lane – P3R, 4th Lane – P4S

5th Lane – P5T, 6th Lane – P6U, 7th Lane – P7V, 8th Lane – P8W

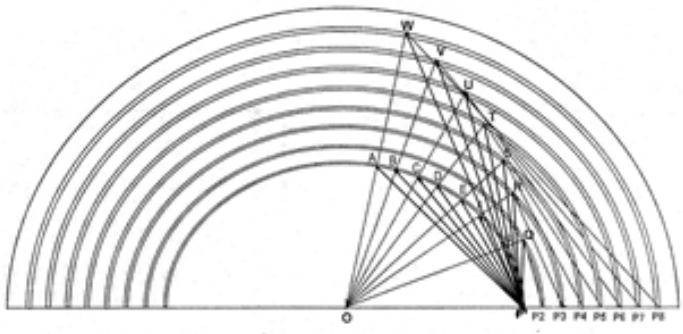


Figure 6

(A) STANDARD TRACK (400 METRE) (B) ONE STRAIGHT (84.39 METRE)
(C) TWO STRAIGHT (168.78 METRE) (D) TOTAL CURVE (231.221 METRE)
LANE WIDE = 1.22 METRE (WITH RAISED BORDER) , π=3.1416

Lane No.	Running distance radius (r)	Curve distance radius (r_c)	Stagger distance (s)	½ Stagger distance (s/2)	Straight Stagger distance	½ Straight Stagger distance	Chord Stagger distance	½ Chord Stagger distance	Diagonal Stagger distance	½ Diagonal Stagger distance
01	36.80	36.50	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
02	37.92	37.72	7.038	3.519	7.028	3.518	6.765	3.386	7.040	3.732
03	39.14	38.94	14.704	7.352	14.618	7.341	13.632	6.846	14.361	7.565
04	40.36	40.16	22.370	11.185	22.085	11.149	19.973	10.083	21.354	11.283
05	41.58	41.38	30.034	15.017	29.385	14.936	25.795	13.111	27.997	14.887
06	42.80	42.60	37.700	18.850	36.493	18.698	31.121	15.946	34.284	18.380
07	44.02	43.82	45.366	22.683	43.385	22.433	35.973	18.601	40.215	21.767
08	45.24	45.04	53.032	26.516	50.047	26.138	40.379	21.088	45.795	25.052

CONCLUSION

I finally conclude that there were some problems in stagger distance marking which would consume more labour and energy. The three methods: straight stagger distance, chord stagger distance and diagonal stagger distance as found in this study are easier than the previous.

Women Empowerment

in Sporting Activities

Satish Sharma*
Dalwinder Singh**

Abstract

Women constitute 70% of the world's 1.2-1.3 billion absolute poor. Women hold 10% of the parliamentary seats worldwide. Over 100 countries have no women in parliament at all. Of the world's nearly one billion illiterate adults, two-thirds are women. In ancient times, responsibility of women was limited and her role was confined to the task. In ancient Olympics, women were not allowed to participate in any sporting events. Restrictions were to the extent that if any female was found near the competition arena, she had to face severe punishment. Though in modern era things have changed a lot but still many atrocities were committed on the females and the need is felt to empower the women. These problems can be solved by increasing the participation of women in sporting events, which will make them psychologically, physiologically and physically sound. Sport is an integral part of the culture of almost every nation. However, its use to promote gender equity and empower girls and women is often overlooked because sport is not universally perceived as a suitable or desirable pursuit for girls and women. Objective of the study is to highlight the importance of sports and present the fact-file about the state of the women in India. Present study depicts the role of sports in empowering women so that women can be secure, respected and can lead a prosperous life in the society. Findings of the study confirm how sports can be instrumental in empowering females. Thus, it was concluded that sports is the most excellent medium by which women can feel secure, respected and confident in the male dominant society and through scientific sport programmes women can enhance the empowerment process by challenging gender norms, reduce restrictions and offer girls and women greater mobility, access to public spaces, and more opportunities for their physical, intellectual and social development. Therefore, every woman should participate in one or the other sporting events to empower themselves.

Keywords: *women empowerment, sports activities, gender and crime.*

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Introduction

Even after sixty five years of Independence, gender inequalities continue to define man-women relationship even in the mundane spheres of life. The Women Reservation Bill proposes 181 seats out of 543 seats of Lok Sabha. The present picture of poverty shows that 70% of the women in the world were absolute poor. In the US, almost half of all poor families are supported by women without spouses; their average income is 23% below the official poverty line. Violence against women has been reported every year and more than two million girls undergo genital mutilation. In the developing world, one-third of all women are victims of domestic violence. In India, five women are burned in dowry-related disputes every day. In Peru, 70% of all crimes reported to the police are of women beaten by their husbands. Women and their dependents constitute 75% of the world's 23 million refugees. More than 20,000 women were reported to have been raped in Bosnia and Herzegovina in the first month of the war. In the field of politics, only 10% of the seats were held by the women in parliament over the world. Nearly hundred countries in the world do not have any women in the parliament. In the country like India women have parliamentary representation (12%) than industrialized countries (9%) and in India women constitute only 11% and 9% of Lok Sabha and Rajya Sabha seats respectively. Health and education is even bleaker, every year over five lakh women die from complications due to pregnancy, another one lakh from unsafe abortions. Seven lakh women face breast cancer each year out of which three lakh dies. Fifteen million women are predicted to become infected with HIV by the year 2000, of which four million may die. Of the world's nearly one billion illiterate adults, two-thirds are women. In mass media, women's share of jobs in the media is overall low: in Africa, Asia and Latin America the average is below 25%. Of the world's one billion poorest people, three-fifths are girls and women. Of the 130 million children who are out of school, 70% are girls. Women make up only 16% of parliamentarians worldwide. Up to 50% of all adult women have experienced violence at the hands of their intimate partners.

Sports as a Tool to Empower Girls and Women

Sport is an integral part of the culture of almost every nation. However, its use to promote gender equity and empower girls and women is often overlooked because sport is not universally perceived as a suitable or desirable pursuit for girls and women. It is true in all countries that girls and women are less likely than boys and men to participate in sport, and sport continues to be dominated by males. It is a mistake, however, to assume that this is because girls and women do not wish to participate. Sport can benefit girls and women by: enhancing health and well-being; fostering self-esteem and empowerment; facilitating social inclusion and integration, challenging gender norms and providing opportunities for leadership and achievement. Through structured sport programs, girls and women can become more physically active; benefit their physical and mental health, including the reduced risk they will suffer from chronic diseases, depression and anxiety, and engaging in health risk behaviours. Sport can also be a powerful health information and education platform, connecting girls and women with the information, skills and strategies they need to

reduce health risks in their lives, particularly in connection with their sexual and reproductive health.

Sport can help increase self-esteem by giving girls and women opportunities to learn new skills, engage in positive relationships, acquire achievements, engage in volunteer service and receive public recognition. By providing women and girls with a voice in program design and decision-making, training, and opportunities for leadership and advocacy, sport programs can also empower and help equip them to take greater control over their own lives. Sport programs can enhance the empowerment process by challenging gender norms, reducing restrictions and offering girls and women greater mobility, access to public spaces, an more opportunities for their physical, intellectual and social development.

Sr. No.	MILLENNIUM DEVELOPMENT GOAL	CONTRIBUTION OF SPORT
1	Eradicate extreme poverty and hunger	• Acquisition of transferable life skills leading to increased employability • through sport participation and coaching • Connection to community services and supports through sport-based outreach programs. • Access to employment and small business supports, and jobs, through sport programs and production of sport equipment • Reduced risk of diseases that can cause or aggravate poverty through access to health information
2	Achieve universal primary education	• Incentives and support for girls to enroll in school • Enhanced school attendance and academic achievement • Alternative education opportunities through sport-based community education programs for girls who cannot attend school • Erosion of stigma preventing girls with disabilities from attending school
3	Promote gender equality and empower women	• Improved physical and mental health for girls and women • Increased opportunities for social interaction and friendship • Increased self-esteem, self-confidence, and sense of control over their bodies • Enhanced access to health information • Access to leadership opportunities and experience • Positive changes in gender norms giving girls and women greater safety and control over their lives • Empowerment of women and girls with disabilities through sport- based opportunities to acquire health information, skills, social networks, and leadership experience
4	Reduce child mortality	• Improved education and access to health information for young mothers, leading to improved health and well-being of their children • Lower rates of high-risk adolescent pregnancies in some contexts • Reduction in child deaths and disability from measles, malaria and polio as a result of sport-based vaccination and prevention campaigns aimed at women • Lower likelihood of female infanticide due to reduced stigma and greater community acceptance of female children
5	Improve maternal health	• Improved access for girls and women to reproductive health information and services • Increased fitness levels to speed post-natal recovery
6	Combat HIV and AIDS, malaria, and other diseases	• Reduced risk of HIV infection as a result of sport programs aimed at prevention education and empowerment of girls • Reduced stigma and increased social and economic integration of girls and women living with HIV and AIDS
7	Develop a global partnership for development	• Global sport and development partnerships and increased networking among governments, donors, NGOs (sport and gender-focused), and sport organizations worldwide to advance Sport for Development and Peace knowledge, policies and programs

The International Olympic Committee (IOC) plays a central leadership and policy-setting role in the world of sport. In 1995, the IOC established a Working Group on Women and Sport (elevated to the status of a commission in 2004) which monitors the participation of women in the Olympics and their representation in decision-making. In 2004, the Olympic Charter was amended to include a specific reference to the need for action on women and sport.

The health benefits of physical activity are well-established for men and women. Regular activity improves quality of life, lowers risk of disease, and offers numerous psychological and social benefits. Physical inactivity is linked to increased risk of death and disability and reduced quality of life which notes that physical activity is one of three primary factors (along with nutrition and non-smoking) that influence individual and population risks of chronic, non-communicable disease worldwide, such as heart disease, stroke, cancer, chronic respiratory disease, and diabetes.

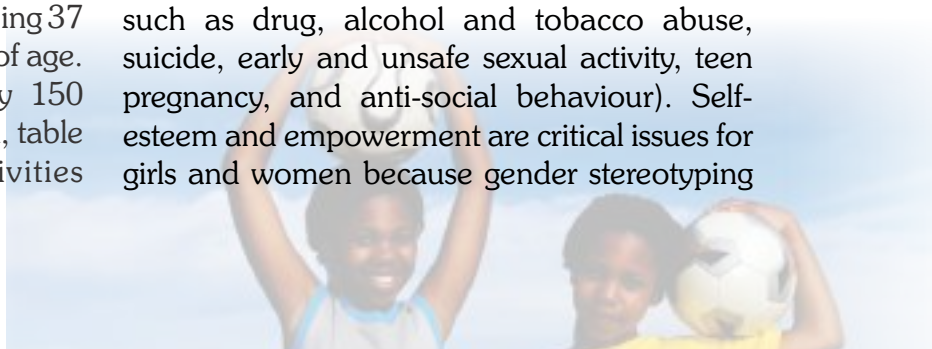
Physical activity can also help those affected to manage the disease. In recognition of the health benefits of physical activity for women, the Government of Hungary enacted sports legislation in December 2000 to ensure equal opportunities for men and women, and boys and girls, to choose and participate in sport, contribute to sport leadership development, and receive funding for different sport programmes. Under this law, all sport organizations, foundations, federations and committees were required to increase female participation to 10% by November 2001, 20% by November 2002, 30% by November 2003 and 35% by November 2004. Recognizing the importance of physical activity for older women, the Government of Egypt has actively promoted their participation by establishing 37 sports centres for women over 35 years of age. Each centre is used by approximately 150 women who enjoy basketball, volleyball, table tennis, and other recreational activities improving access to sexual and reproductive health information, education and services. Sexual and reproductive health of girls and women is a particular challenge. Fifty percent of all adults worldwide living with HIV and AIDS are women. This statistic is even higher in sub-Saharan Africa, where, in 2007, almost 61% of adults living with HIV were women. Women's biological vulnerability to contracting HIV and other sexually transmitted infections is often exacerbated by existing social perceptions about their roles.

Sport and Gender Empowering Girls and Women

Blinde, Elaine M. et al. (1994) in this exploratory study examines the potential of intercollegiate sport participation to empower women at the group and societal levels. Telephone interviews were conducted with 24 women athletes from various sport teams at three Division I universities. Findings demonstrate that at the group level, sport facilitates female handing and the development of a group identity and common goals. Empowerment at the societal level was noted when athletes indicated that their participation in sport challenged societal perceptions of women as well as making them more aware of gender inequalities in sport.

Fostering Self Esteem and Empowerment

The empowerment of girls and women involves the increased ability to make strategic life choices in contexts where this ability was previously limited. A necessary precursor to empowerment, self-esteem is defined as a person's overall self-appraisal and feeling of self-worth. Self-esteem is essential to mental health and well-being (low self-esteem can be a contributing factor to health risk behaviours such as drug, alcohol and tobacco abuse, suicide, early and unsafe sexual activity, teen pregnancy, and anti-social behaviour). Self-esteem and empowerment are critical issues for girls and women because gender stereotyping



and gender norms often lead to feelings of inadequacy and lack of confidence. With limited mobility, uneven access to education and employment, and few economic assets, girls and women often lack a sense of personal worth and value. This further reduces their chances of feeling competent, being assertive, and feeling secure, safe, and connected. Together, these perceptions and feelings can cause women to feel disempowered, lacking the strength and confidence to embrace goals and possibilities, and to make the choices necessary to realize them. The International Olympic Committee (IOC) plays a central leadership and policy-setting role in the world of sport. In 1995, the IOC established a Working Group on Women and Sport (elevated to the status of a commission in 2004), which monitors the participation of women in the Olympics and their representation in decision-making.

In 2004, the Olympic Charter was amended to include a specific reference to the need for action on women and sport. Sport offers multiple avenues to address these health challenges and can promote good health for girls and women. It can provide an important venue to share critical health information and education and a safe and neutral space where women can discuss sexual and reproductive health issues and strategies to address them. As noted in the use of sport for these aims requires sport facilitators, such as coaches, teachers and peer educators, to be well-trained and informed on health issues. Well-trained and informed sport facilitators are uniquely positioned to convey accurate and appropriate health information and referrals. They can approach sensitive topics in an age-appropriate and culturally appropriate way, and they can use their counselling skills to provide effective support to girls and women who ask for guidance in dealing with specific issues, including sexual abuse and HIV and AIDS. The award is for Datamation's 'SAVE THE GIRL CHILD' e-Governance and e-Complaint lodging process against illegal clinics and doctors selectively aborting female foetuses; in the process disturbing our sex-ratios indiscriminately.

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YOGA-NIDRA

Deep Relaxation and Guided Meditation

Dr. Bhaskar Jyoti Sharma*

Dr. Madan Singh Rathore**

INTRODUCTION

Yoga is the science of right living and, as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual. The word yoga means 'unity' or 'oneness' and derived from a Sanskrit word yuj which means 'to join'. While yoga's central theme remains the highest goal of the spiritual path, yogic practices give direct and tangible benefits to everyone regardless of their spiritual aims. Physical and mental therapy is one of the yoga's most important achievements. What makes it so powerful and effective is the fact that it works on the holistic principles of harmony and unification. Yoga has succeeded as an alternative form of therapy in diseases such as asthma, diabetes, blood pressure, arthritis, digestive disorders and other ailments of a chronic and constitutional nature where modern sciences has not. According to medical scientists, yoga therapy is successful because of the balance created in the nervous and endocrine systems which directly influences all other systems and organs of the body. Relaxations techniques help maximize the effectiveness of ever - diminishing time off.

Stress and anxiety: Stress and anxiety have been implicated as contributors too many chronic diseases and to decreased quality of life, even with pharmacologic treatment. Efforts are underway to find non-pharmacologic therapies to relieve stress and anxiety, and yoga is one option for which results are promising. Stress can come from any event or thought that makes you feel frustrated, angry, or nervous and anxiety is a feeling of fear, unease, and worry.

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YOGA-NIDRA HISTORY

Yoga-nidra refers to the conscious awareness of the deep sleep state, referred to as 'prajna' in Mandukya Upanishad. Yoga-nidra was experienced by Swami Satyananda Saraswati when he was living with his guru Swami Sivananda in Rishikesh. He began studying the tantric scriptures and, after practice, constructed a system of relaxation, which he began popularizing in the mid-20th century. He explained yoga-nidra as a state of mind between wakefulness and sleep that opened deep phases of the mind, suggesting a connection with the ancient tantric practice called nyasa, whereby Sanskrit mantras are mentally placed within specific body parts, while meditating on each part (of the body mind). The form of practice taught by Swami Satyananda includes eight stages (Internalization, Sankalpa, Rotation of Consciousness, Breath Awareness, Manifestation of Opposites, Creative Visualization, Sankalpa and Externalization).

Teachers such as Osho and Anandmurti Gurumaa define yoga-nidra as a state of conscious deep sleep. One appears to be sleeping but the unconscious mind is functioning at a deeper level: it is sleep with a trace of deep awareness. In normal sleep we lose track of our self but in yoga-nidra, while consciousness of the world is dim and relaxation is deep, there remains an inward lucidity and experiences may be absorbed to be recalled later.

Anandmurti Gurumaa taught two techniques based on creative visualization. Yoga-nidra as Yoga of Clear Light is proposed as a spiritual path (sadhana) in its own right, held to prepare and refine a seeker (sadhaka) spiritually, emotionally, mentally and physically for consciousness and awareness. The yogi may work through the consequences of deeds (karma), cleansing the store consciousness and purifying the unconscious mind. The state may lead to realization (samādhi) and being-awareness-bliss (satchitananda). The yogi is held to be in communion with the divine. A tantrika engaged in this sadhana may become aware of past or future lives (refer bhumi).

YOGA-NIDRA
THE WHOLISTIC RELAXATION TECHNIQUE

All the three kinds of muscular, emotional, and mental tensions are released in yoga-nidra and thus it is highly beneficial for people suffering from psychosomatic diseases such as hypertension, stress, diabetes, migraine, asthma, ulcers, digestive disorders, and skin diseases that are caused by the tensions in the body and mind. Yoga-nidra is a systematic way of relaxing your body, mind and intellect.

Most people think that relaxation is very simple; just recline and close your eyes. You are tired so you go to bed and think that is relaxation. But unless you have released your muscular, mental and emotional tensions, you are never relaxed. Some symptoms of the people having these tensions are that they habitually bite their nails, scratch their head, stroke their chin, tap their feet, talk compulsively, display constant irritability, or chain smoke. They do these things because they lack awareness of their own inner tension. Even while sleeping the worries and thoughts revolve continuously in the mind and the tense person wakes up feeling exhausted. And that's exactly where yoga-nidra helps. Yoga-nidra is the scientific method to remove all these tensions.

Yoga-nidra is a more efficient and effective form of psychic and physiological rest and relaxation than the routine sleep. A single hour of yoga-nidra is as restful and refreshing as four hours of conventional sleep.

Studies on meditation and relaxation techniques indicate without a doubt, that when the brain patterns change through achieving a deep state of relaxation, the physiological experience is altered. Thus our does our Physiology affect our Psychology by 'Our Psychology changes Physiology'.

A lot of energy can be expended in this way with no real achievement.

Benefits of Yoga-Nidra

- Yoga-nidra induces deep relaxation at all the levels—physical, mental and emotional.
- The quality of sleep improves dramatically by practicing yoga-nidra.
- The work efficiency increases manifolds by practicing yoga-nidra.
- Yoga-nidra is highly effective in removing stress.
- The diseases like insomnia, hypertension, depression, asthma, digestive disorders, migraine and ulcers can be cured by yoga-nidra.
- The practice of yoga-nidra shifts pressures from the coronary system.
- It exerts positive influence on the physical matter in the brain.
- Yoga-nidra awakens the psychic body and gives the practitioner, experiences of the astral plane.

Yoga-Nidra therapy has two main stages:

The first stage induces a relaxed state of body-mind. This stage is common in all Yoga-nidra practice. The body has the potential to heal itself but requires the correct conditions to allow healing to proceed. The primary condition required for healing is deep rest. The process of inducing deep rest begins with the use of a positive resolution, a resolve that consciously articulates our desire to heal ourselves. Then rotation of awareness through the parts of the body is performed, which is a simplified form of nyasa. Rotation of awareness creates whole body relaxation. This is followed by awareness of and manipulation of the breath which powerfully relaxes the nervous system and the thinking mind.

The second stage is the use of processes that can either be general healing strategies appropriate for the majority of people, or strategies that are specific to the condition being treated. In specific disease conditions the yoga therapist must know about the condition they are dealing with, and must understand its nature and its usual progression. This gives the therapist the understanding required to initiate proper treatment.

Scientific Evaluation

From a scientific point of view the brain waves are very much affected and influenced through music, sound, and meditation. In daily life we mainly experience Beta brainwave patterns (13-30 cycles per/second), however if we listen to ambient music or enter into a relaxed state the brainwave patterns change to Alpha (7–13 cycles/second) and when we enter into an even deep state of meditation we can experience Theta brainwave patterns (4–7cycles/second). The benefits of Alpha and Theta brain waves are many and these patterns can be invoked through meditation, relaxation and listening to certain music, sound and tones. When we spend too much time in Beta, as can happen in our fast and furious life styles, and then stress can become a contributing factor to physical, mental and emotional disease. Recent discoveries in the science of psycho-neuro-immunology (a long word for the relationship between the mind and body), have demonstrated a clear link between healing and brain wave patterns. During relaxation in Alpha and Theta states, breathing pattern relaxes and deepens, the blood pressure drops, there is muscular relaxation, and the levels of neurological and emotional stress drop dramatically. With the resulting lowered levels of anxiety (reflecting stress), the ability to concentrate improves, sleep patterns improve, and emotional re-action that create family and relationship friction lessen. We develop the ability to act more from the present moment as we relax into present time.

Experimental evidence of the existence of a fourth state of unified, transcendental consciousness, which lies in the yoga-nidra state at the transition between sensory and sleep consciousness, was first recorded at the Menninger Foundation in Kansas, USA in 1971. Under the direction of Dr. Elmer Green,

researchers used an electroencephalograph to record the brainwave activity of an Indian yogi, Swami Rama, while he progressively relaxed his entire physical, mental and emotional structure through the practice of Yoga-nidra.What they recorded was a revelation to the scientific community. The Swami demonstrated the capacity to enter the various states of consciousness at will, as evidenced by remarkable changes in the electrical activity of his brain.

Dr. Kamakhya Kumar, in 2006, was awarded Ph.D degree by Dr. A.P.J. Abdul Kalam (President of India) for his work, *Psycho-physiological Changes as Related to Yoga-nidra*. He observed six months effects of yoga-nidra on some Physiological, hematological and some Psychological parameters on the practitioners and he found a significant change on above mentioned parameters. One of the research published entitled "A study on the impact on stress and anxiety through Yoga-nidra"; *Indian Journal of Traditional Knowledge*, Vol. 7 No 3" (Published through NISCAIR).

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"Somewhere behind the athlete you've become and the hours of practice and the coaches who have pushed you is a little girl who fell in love with the game and never looked back… play for her." *— Mia Hamm*

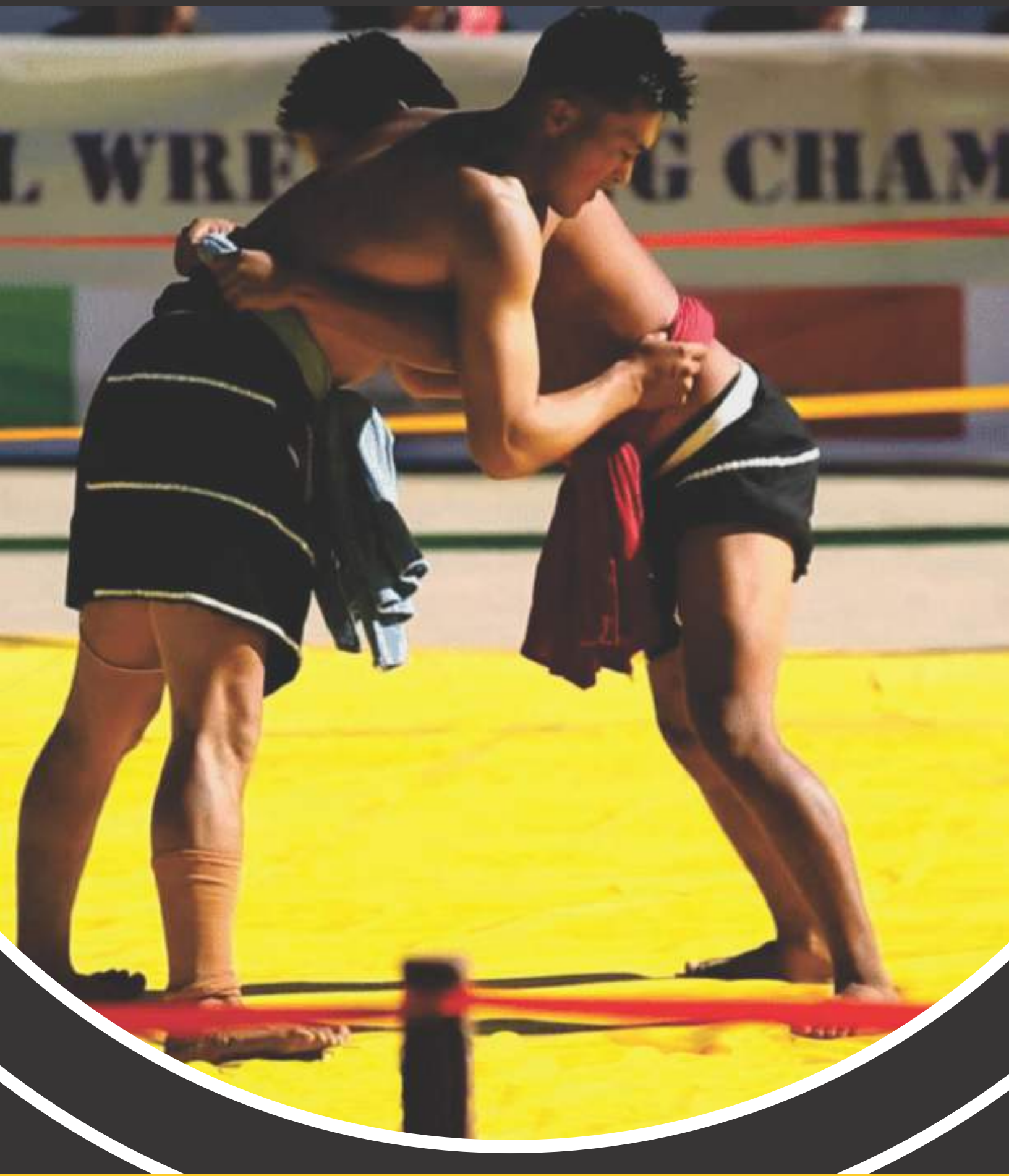
"When you've got something to prove, there's nothing greater than a challenge." *—Terry Bradshaw*

"Never give up, never give in, and when the upper hand is ours, may we have the ability to handle the win with the dignity that we absorbed the loss." *—Doug Williams*

"It's not the will to win that matters—everyone has that. It's the will to prepare to win that matters." *—Paul "Bear" Bryant*

"Persistence can change failure into extraordinary achievement." *—Marv Levy*

"I've learned that something constructive comes from every defeat." *—Tom Landry*


L WRE
G CHAM

Prospects & Problems

Physical Education, Games & Sports in Manipur

Abstract

Manipur, a State in the Indian Union, is a legendary land of games & sports. Its indigenous games are old and unique. The sports persons of Manipur have the racial quality of head and heart to adopt and adapt various games at the world class. The sports profile of outstanding Manipuri sports persons testifies their sports caliber and talent. Manipuris, it may be observed, are born participants of arts and culture, and sports. Physical Education is a good means of human resource development. Apart from being the exposition of sports talents in various games, it also becomes a career and profession for a large chunk of sportspersons inside and outside the state. Manipuri players can compete at the International arena in many fields in both team and individual events. There are winners and gold medalists from Manipur. This is a remarkable feature of Manipur. Modern sports flourish in Manipur under the patronage of great Englishmen and the Rulers (Kings) of the state. Modern games and sports are organized in a moderate profile with the available resources and infrastructures and participants can shine profitably. The state has a good number of Olympians, World champions. Judging the small number of populations of the state, the achievement is a spectacular one.Of late the Government of Manipur made a sports policy on the right tract and this will help render a pragmatic, proactive prospect for a brighter future of games and sports in the sports horizon of Manipur and India.

Introduction

Physical Education plays a vital role in the development games & sports in Manipur. The aim that Physical education sets to provide should embrace not only the mental but also the physical wellbeing of the child. The one is inconceivable without the other. If physical education is to ensure harmonious growth of the body, mind and soul its influence has to commence right from childhood. Physical Education experience should help in the conscious release of the vital energy of the child. As discipline comes easier to a child not yet in its teens, physical education should catch them young and inculcate their interest in sports, athletic and team games which generate the self-confidence, team spirit and respect for the other person's point of view, so essential for a democratic way of life. We cannot teach citizenship character, honesty, morality, and discipline through lectures or through some other examination subjects. Direct participation of the children in physical activities &sports is essential to their normal development. It is nature's way to enrich one physically, mentally and spiritually too.

Physical Education also provides an opportunity for children to develop critical life skills, such as problem solving, strategy, and working together. Many team sports require participants to work together to achieve a goal. Children also learn the basics of good sportsmanship and that there is much more to sports and physical activities them simply winning or losing.

Man strives for physical education and mental excellence from time immemorial. A sound mind in a sound body, ("Orandumestut Sit, Menssana in corporesano"). This dictum of ancient Greek ideal defined the dimension of ancient physical education. It is a part of education. The potentialities of an individual can develop through various activities of life. Empowerment of man can be developed in three dimensions – the cognitive, the effective and the psychomotor domains. Physical education and sports is neither drill-mastership nor skill-mastership; it has attained a stature where multi-disciplinary thoughts and experiences fuse into inter-disciplinary academic field where physical education and sports can no longer remain technician but has got to be professional and academic studying and venturing into the different areas of Pedagogy, Anthropology, Philosophy, History, Sociology, Physiology, Bio-mechanics, Kinesiology, Ergonomics, Psychology, Economic and Management of Sports, Adapted physical education, Health & Nutrition, Physiotherapy & Sports Medicine, Yogic practice including Yoga therapy, Curriculum studies, Movement & recreation studies, Research, Innovation & Instrumental *etc* with a view to making it a truly man-making science.

Manipur has a distinctive culture of its own which finds expressions in manifold creative activities not only in the field of dance, music and other performing arts but also in the field of games & sports. The salubrious climate, availability of nutritious foods and healthy natural environment made the people robust, energetic and fine sports persons. Endowed with muscular and agile bodies the people of Manipur fondly nourished a variety of indigenous games, some of which greatly influenced our youths in adapting themselves to

the newly introduced modern games. Manipuris have a very long tradition of playing different types of games & sports (traditional & modern games).

It is said that Physical Education is imparted to the youths of Manipur in a systematic way since the reign of King Nongda Lairen Pakhangba (33 A.D.) Various games & sports were also started playing during the time of King Pakhangba. Since then, there were also existence of military education skills and physical activities among the people of succeeding generations. It was also essential to protect themselves from the invaders of the neighboring regions of the state.

The modern pioneers of Manipur in the field of Physical Education, Games & Sports were, Sir James Johnstone, KCSI, Reverend William Pettigrew, Sir Churachand Singhjee KCSI. CBE and Maharaj Bodhchandra Singhjee. They contributed a lot to the development of physical education and sports in Manipur. The State sports policy 2003 is a mile stone in the movement of games and sports in Manipur.

The inclusion of physical education as a compulsory curricular and examination subject by the Board of Secondary Education, Manipur in the Schools of the state is only a very modest beginning, but we cannot afford to rest there and must strive to implement the programme successfully. Considerable importance has been given to games and sports in our education institutions in recent years. Large sums of money are set apart for the promotion of games and sports in the State's Five Year Plans. Boys and girls of this state by thousands enjoy the thrill of participating in various games. This is because boys and girls playing games find out only enjoyment and fun but also find opportunity to improve their bodily health, physique and vigor. Besides, games and sports activities fulfill several other functions such as development of good character, excellent social ideals, team spirit etc. All the above are the concern of education but none of which can be so successfully accomplished by any educational process except through a good programme of physical education where games and sports are given an important place. In class room a child has many opportunities to learn good social and mental traits such as cooperation, discipline etc. However, in a class room much time is spent on talking of their value and very little opportunity for exercising these qualities can be provided. While participating in sports and games all these qualities are unconsciously practiced by the child and it is done with a spontaneous and native interest.

Educationists have recognized enormous importance of play in the child's life. Sports have distinctive values to contribute to the life of individuals. There are plenty of social, moral and spiritual potentialities in sports, in sports one subordinates oneself to fit into a team, and cooperate for the common objective of the team. Nothing makes for better social training than the experience of a joint effort in team games where all are working towards a common goal. There are several occasions in a game where players have to depend entirely on themselves and make quick decision to act quickly. If they fail they may regret but the same opportunity will never come back to them and they cannot shift the blame on others. Thus this is a very valuable training ground where children learning to accept individual responsibility although working as a member of a team in a joint effort. In games and sports as in life, one experiences victory and defeat. Playing to win and learning to obey rules, winning graciously and with humility and losing courageously are the characteristics of the best in the games and sports. What matters in sports is not whether we win or lose but how we play the game. Sports and games are ways of life. Participation in games and sports will help the children to come and play confidently the greatest game called life. If a person gives up in sports that person will never come up in life. School children can be easily trained to become better persons through well organized programmes of games and sports.

One of the greatest needs of the day is discipline amongst our student's population. Our boys and girls have to learn discipline in their lives so that they add power to lead a clean life profitably to them and to the society. The best method to teach discipline is through sports and games where disciplines are manifested and participants unconsciously acquired this. There is a tendency among certain sections that discipline can be forced on the individuals externally through military training. The discipline that is forced on individual will last only for a short period.

One of the valuable elements in play is the sense of achievement. The need for success and achievement is one of the fundamentals and nothing satisfies more than the success which follows a conscious effort. The value of success is very little if it is easy. Games and sports offer a good opportunity which is within the reach of a large number of children to achieve success. To be able to do something effectively and successfully satisfies the ego of our youngsters.

Equally, significant potential of sports is its contribution to mental and emotional health of our children besides physical health. Individuals need a sense of worth, a belief in themselves and acceptance of themselves by others to be mentally healthy. The development of skill and its accompanying sense of achievement is possible through sports and can meet these needs in our children. All healthy children need a sense of belonging, of being part of a group, being a member of a club. All these add to the development of a healthy personality. The benefits gained through games and sports are of great importance in our boys and girls. Unfortunately, in our state it is limited to a few selected and fortunate ones who are good enough to be in the school/club teams. We ignore the fact that the less able participants have the same need and hope and they should also have the same opportunity to play.

Schools are the nurtures from which future sports men and sports women are to be groomed and developed. Sportsmen of tomorrow are students of today if they are not nursed and developed in sports today they will not be available to participant in National and International competitions. Games and sports programmes should reach the beginners, the average ones and the experts. When that happens our schools will lay real foundation for a healthy nation.

Manipur at present occupies a prominent place in the field of games & sports in the country. The State has produced a number of National & International players including the highest Sports award winner the Rajiv Gandhi KhelRatna. Around 500 sportspersons of Manipur are at present, either playing or employed in various teams, clubs, and institutions outside Manipur in various disciplines. An Economically backward state like Manipur, Games & Sports is becoming an avenue for employment at different sectors at present.

The Tables given below shows the **Achievements**.

1. Rajiv Gandhi Khel Ratna Awardees

Sl.No	Name of the Players	Discipline	Award	
1.	Smt. M.C. Mary Kom (Padma Bhusan 2013)	Boxing	Rajiv Gandhi Khel Ratna Award.	2009
2.	Km. N. Kunjarani Devi	Weight Lifting	Rajiv Gandhi Khel Ratna Award.	1996

2. Arjuna Awardees of Manipur

Sl.No	Name of the Players	Discipline	Award	Year
1.	Km. N. Kunjarani Devi	Weight Lifting	Arjuna Award	1990
2.	Shri Ng. Dingko Singh	Boxing	Arjuna Award	1998
3.	Km. Th. Sanamacha Chanu	Weight Lifting	Arjuna Award	2000.
4.	Km. Ksh. Tingongleima Devi	Hockey	Arjuna Award	2000.
5.	Km. W. Surjalata Devi	Hockey	Arjuna Award.	2003
6.	Smt. M.C. Mary Kom	Boxing	1. Arjuna Award 2. 5th time World Champions.	2003.
7.	Km. L. Sarita Devi	Boxing	Arjuna Award	2008
8.	Km. L. Anita Chanu	Judo	Arjuna Award	2004
9.	Km. Kh. Tombi	Judo	Arjuna Award	2007
10.	Shri M. Suranjoy Singh	Boxing	Arjuna Award	2011
11.	Km. L. Bombayla	Archery	Arjuna Award	2012
12.	Km. Soniya Chanu	Weight Lifting	Arjuna Award	2012
13.	Shri Bimoljit Singh	Wushu	Arjuna Award	2012
14.	Km. Shandhyarani Devi	Wushu	Arjuna Award	2011
15.	Shri. Kothajit Singh	Hockey	Arjuna Award	2012

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3. The Olympians of Manipur

Sl. No	Name of the Players	Discipline	Place	Year
01.	Shri P. Nilakamal	Hockey	Los Angeles, USA	1984
02.	Shri Ksh. Thoiba Singh	Hockey	Seoul, Korea	1988
03.	Shri Ng. Dingko Singh	Boxing	Sydney, Australia	2000
04.	Shri N. Suresh Singh	Boxing	Sydney, Australia	2000
05.	Km. Th. Sanamacha Chanu	Weight Lifting	Sydney, Australia Athens, Greece	2000 2004
06.	Km. Brojeshori Devi	Judo	Sydney, Australia	2000
07.	Km. N. Kunjarani Devi	Weight Lifting	Athens, Greece	2004
08.	Km. L. Bombayla Devi	Archery	Beijing, China London, UK	2008 2012
09.	Km. Tombi Devi	Judo	Beijing, China	2008
10	Km. Ng. Soniya Chanu	Weight Lifting	London, UK	2012
11.	Shri Laishram Devendro	Boxing	London, UK	2012
12.	Km. Mary Kom	Boxing (Bronze)	London, UK	2012
13.	Shri Kh. Kothajit	Hockey	London	2012

4. Padmashree Awardees of Sports

Sl.No	Name of the Players	Discipline
01.	Smti G. Anita Devi	Mountaineering - 2004
02.	Smti M.C. Mary Kom	Boxing - 2010
03.	Shri NG. Dingko Singh	Boxing - 2013

5.Dronacharya Award

Sl. No	Name of the Coach	Discipline
01.	L. Ibomcha Singh	Boxing 2010

6. Dhyanchandra Award

Sl. No	Name of the Coach	Discipline
01.	L. Anita Chanu	Weight Lifting 2010

7. Mr. World 2013, Mr. World Cup 2014 & Mr. Natural Olympia 2014

Sl. No	Name of the Coach	Discipline
01.	Dr. Ng. Shantikumar Meetei	Body Building

Conclusion

Surveying the field of physical education and sports in our state today one cannot help feeling disconcerted to some extent that our progress has not been as rapid as we could have wished. We still find storage of essential facilities, like playing fields, auditoria standard sports equipment and so on. Above all these, there is an unfortunate absence of a coordinated approach to the training and building of sports talent. Financial resources everyone is aware, are scarce, but it is an open question whether we are making attempts to pool and harness the available resources for the purpose. This is a matter of cooperative endeavor where in addition to government, all sports loving and sports conscious organizations and members of enlightened public have to put their heads together and get a move on with all the contemplated and formulated plan of action.

The dream of becoming a leader in the field of sports is realized that we will be having a Sports University in Manipur as announced by Govt of India. This has been a long cherished dream.

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MIKASA

The Game of Volleyball

Effect of New Rules

Change is the salt of life and hence we have to change ourselves as the situations demands. Even if water stays at one place for longer duration, then it is not considered to be fit for any use. Accordingly it is very important to improvise and adopt the new rules as quickly as possible not only by players but also by coaches, trainers, journalists and all related persons as they bear the main responsibility for a positive basic attitude.

The effects of new rules on following area:

1. Structure of the game

The internal structure of the game has not changed with the new system of scoring, only the external structure has. The sets will become shorter in future, but shorter duration will barely alter the structure of the game. Individual, group and team tactics in attack and defense, the complex-1, complex-2, techniques and aesthetics of the game and everything else have not changed, but the game demands the players to be more intensive and adapt the new situations.

The external structure has changed a little bit, as it is recognizable by the shorter playing or set times i.e.,now asset lasts an average of 15 to 17 minutes, previously the duration was about 19 minutes. In addition to the changed duration it is to be accepted by FIVB that there are now only two time-outs including technical time-out. One for coach and one technical time-out and also due to the new substitution rules (i.e. the player should stand in the substitution zone and must be ready to play at the moment of request by the coach) the interruption is of less duration than earlier days.

Because of the greater mental pressure (through introduction of the new rules) serves are less risky in earlier days and at low level of play. But in high level of play the serves are more risky to break the service reception. Service is one of the dominating factor, to win the match. The game deciding phase no longer begins with the 10th point but rather at the start of the set.

2. Changing Pattern in Individual Tactical Training

Individual tactical training will become more important as every moment can change the result of the match. Due to this, each player needs individual training to play with their maximum potentiality either in terms of offence or defence because each one have a great responsibility and duty to take the team to a greater height.

It is important to train the individual for service and reception even in order to be constant in side-out and keep the game open. Training on Jump serves should increase to break the reception of the opponent team and it must be away from the libero.

3. On Referees: A New Concept

Earlier the referees don't have any easy option to maintain the ethics of game earlier, at first instant they have to directly go for penalty by sanctioning the yellow card i.e. penalty (in which a point and the service is awarded to the opponent). But now the referees have an option by showing the non sanctioning yellow card which is considered as formal warning and that warning is recorded on the score sheet and that is much more influential effect than the verbal warning. It is to be considered as great change for making the game more ethical.

4. Ranking of team: Challenging System

The new system of ranking has also increase the importance of winning each point and each set. Now a team who lose the match with set score 3–2 have also an option to remain in the league ranking because losing team also gets 1 point out of 3 and winning team have only 2 points, whereasearlier the teams don't get any point after losing the match. This new rules force the teams to put their maximum effort and try to play five set even playing against strong team.

5. For spectators

It is proposed by FIVB in November 2014 that there will be 6.5 metre free zone behind the end line and 5 metre towards the side line which helps the spectators to give better view of the match and they will be closer to the players. Spectators will enjoy the thrill of the game, the playing actions, defensive moments, their gestures, offensive mood, long rallies and all other moments closely than earlier which gives a better satisfaction to the spectators.

Sprinting Mechanism

An Overview on Training Implications

Praveen Kumar*

Sport training is done for improving sports performance. The sports performance, as any other type of human performance, is not the product of one single system or aspect of human personality. On the contrary, it is the product of the total personality of the sports person. The personality of a person has several dimensions e.g. physical, physiological, social and psychological. In order to improve sports performance the social and psychic capacities of the sports person also have to be improved in addition to the physical and physiological ones. In other words, the total personality of sportsman has to be improved in order to enhance his performance. Sports training, therefore directly and indirectly aims at improving the personality of the sportsman. No wonder, therefore, sports training is an educational process (**Hardayal Singh, 1991).**

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Speed plays a vital role for sprinters to give performance. They must possess acceleration speed, speed of movement and reaction time. The contribution made by reaction time to performance is still not very certain. There is no doubt regarding the contribution of acceleration speed, sprinting speed and speed of movement to bring about better performance on the part of sprinters. Therefore, to optimum performance in activities, where the speed is the main factor, acceleration speed, sprinting speed, speed of movement and reaction time should move together (K. Jamalunden, 1982).

Speed items, commonly known as sprinting events, have been on the agenda of the modern Olympic Games from the very beginning. Speed plays a vital role in all games and sports, but it plays a very dominant role especially for the sprinters. For a sprinter to give a good performance, he must possess acceleration

speed, sprinting speed, speed of movement and reaction time (C. Arlet, 1975).

Sprinting is one of the popular events in Track and Field. 100m, 200m, 400m, etc. are some of the events which demand supreme efforts, excellent physical fitness, sufficient strength and speed. These events have a different form of start from the other events such as 800m and above, which have standing starts. The sprinters of these events use blocks to start because of its mechanical advantages. Proper starting is one of the most important fundamentals of good sprinting, and often races are decided by inches made or lost at the start (Don Canham, 1956).

Sprinting is the fullest form of running performed over short distances in which maximum or near maximum effort can be sustained. Track and field events need tremendous strength for good performance. It would be better to find out the same through isometric and isotonic exercises. The vital need of all sprinters is tremendous leg power, necessary for the fastest possible leg speed. (George Kirkeley 1971).

Earlier the athlete did not adopt any sophisticated training means for the development of speed. In the competition, he exhibited whatever he gained through daily physical work and whatever speed characteristics he inherited from his parents. In ancient days the saying “Sprinters are never made they are born” used to carry might which is now being modified as "sprinter is born with some inherited speed, but he can be shaped into a still better runner as a result of scientific training".

An average sprinter can become top class with the right training and competitions. Certainly there is no one physique which is dominant in sprinting and the elite include all builds, from lightly built wiry runners, through stocky power houses and all rangy stride, to the big muscular strength athletes. Technically, very light men appear to float over the track, while the muscular type power their way to the tape but all runners have one thing in common, fast natural movements with rapid cadence. Sprinting speed depends upon the stride length and rate of striding or cadence. The cadence in good sprinting is 4.5 (and sometimes possibly 5) strides per second. Stride length among sprinters varies between about 7 feet to 8.8 feet (2.10–2.60 metre). Improving either stride length or cadence will increase sprinting speed. Stride length, therefore, offers the best opportunity for improving sprint speed. (T.P.Jose 2002).

Speed can be improved by increasing the length of the running stride while maintaining the same rate of leg movement. A trained runner will usually have a longer stride, by 7 to 8 inches, over an untrained runner. Stride length can be an acquired skill. Success in speed has been attributed to having a long stride that carries the runner low to the ground. The common fault regarding stride length is over striding. Over striding does not produce a faster rate of speed. Understanding proper sprinting mechanism, however, will help in speed development. Mechanics has to do with the effects of energy and forces on the body. For sprinters, muscle power, neurological innervations and length of limbs are the most important factors to consider.

Stride length is governed by the power the sprinter puts into the stride or the ground contact time. Stride length also has an effect on the angle of the force to the ground. Over striding athletes may actually cause their stride to shorten. The best way to improve stride is not by changing technique, but rather by improving the ability to produce power (i.e. speed and strength). Natural increase in stride length occurs when greater power is applied to the ground and due to improvements in stride frequency. Stride frequency is limited by the physiological makeup of each athlete. It is governed by the firing ability of the nerves stimulating the muscles, the fiber type the muscles are made up of and the length of the limbs. The more fast twitch fibers one has, the greater stride frequency one can attain. Shorter limbs have a lower stride frequency. Short sprinters therefore typically run with a very powerful stride and, on average, run the short races (60 to 100mtrs) faster. Tall sprinters run faster in the longer sprint races in which both speed and endurance are needed.

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TREK

Blood Lactate Response and Recovery Pattern

An Overview of Distance Running

Dr. Hiralal Yadav

The energy system involved during the exercise and the enzymatic activities that comes into play as catalyst in various function of anabolism and catabolism during exercise. Lactate accumulation starts at lactate threshold which is defined as a point at which blood lactate begins to accumulate above resting level during an exercise of increasing intensity (Wilmore H. Jack and Costill L. David, 2008).

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The cessation of muscular activity is due to Lactic accumulation in the muscle is evidenced by reduced force and velocity of muscle contraction. The first is an inhibition of actomyosin ATPase, the enzyme responsible for the breakdown of ATP to provide the immediate energy for muscle contraction. The second is an interference of H+ with the actions and uptake of calcium (Ca2+) that is necessary for the excitation-contraction coupling and relaxation of the protein cross-bridges within the muscle fibre. High levels of lactate ions (La-) may also interfere with cross-bridging. The result of these actions is a decrease in both the force a muscle can exert and the velocity of muscle contraction (Plowman A. Sharon and Smith L. Denise, 2003). Typically for distance runners the lactate threshold is assumed to start at running speed 13km/hr. This is the criterion point of running intensity from where lactate accumulation intensity rapidly increases.

For distance runners the lactate threshold is usually expressed in terms of percentage of maximum oxygen (O2) consumption (VO2 max.) at which it occurs. The ability to exercise at high intensity without accumulating lactate is beneficial to the athlete because lactate accumulation contributes to fatigue. The average running performances of the subject of this study were 17-18 km/hr for 10,000m runners and 20km/hr for 5000m runners. Hence, 13km/hr running speed where accumulation of lactate starts rapidly and if seen in this context the 15.05 mmol/liter lactate accumulation for 5000m runners and 12.87Mmol/liter for 10,000m runners was obvious due to the intensity of the event in terms of running pace. Here, the level of lactate accumulation may be due to the fact that the running pace of the subject was much higher than 13km /hr.

Anaerobic lactate threshold percentage is mostly expressed in terms of percentage which is 50% of VO2 max. that is 13km/hr running speed. In elite endurance athletes, the lactate threshold is around 70-80 % of VO2 max. Since the athletes of 5000 m and 10,000 m runners of this study were having average speed of 18km/hr and 20km/hr respectively, the running pace stands at a lap of 400m track is covered with the pace of 1:12.0 minutes to 1:15.0 minutes whereas at this average speed the last lap is covered at 55sec–1 min. The last lap intensity by this criterion comes to incredible pace of 25–27km/hr. Hence, the lactate accumulation for 5000 m and 10,000 m runners can be directly attributed to the last intense phase of running. That means long distance runners lactate threshold is 80–90% of VO2 max.

The findings related to lactate accumulation of 15.05 mmol /liter and 12.87 mmol/ liter for 5000m and 10,000m runners respectively may be attributed to the last two laps of intense running pace of the events. For endurance athletes of 5000m and 10,000m anaerobic lactate threshold just cannot occur in beginning or in early part of running event as specificity of training, state of training in distance running provides economy of effort to long distance runners. Under aerobic conditions Lactate's rate of removal by other tissue matches its rate of formation resulting in no net lactate accumulation i.e. blood lactate concentration remains stable and the blood lactate accumulates only when removal does not match production. (Mc Ardle, Katch & Katch, 2001)

The Blood lactic acid depend on three factors namely resting lactic acid level, rate of formation and rate of dissimilation during work and after work. Moving below threshold level all oxygen (O2) will not be used for bio-synthesis of ATP, some Oxygen (O2) will be used for reversal of lactic acid to pyruvic acid. Running all out speed shoots up the Blood lactate level much higher than the anaerobic threshold than running slowly at anaerobic threshold (AT). All subjects were not having equal training period, aerobic and anaerobic fitness level. The physiological responses the sum total effect of individual capacities.

Despite wide inter-individual differences related to muscle fiber type in a resting recovery situation approximately half of the lactate is removed in about 15–25 minutes no matter what the starting level is. This is half-life of lactate. Near resting levels are achieved in about 30–60 minutes, regardless of the starting level. Thus, the initial post exercise concentration of lactate is first factor that influence the rate of removal. The higher the concentration, the faster the rate of removal is.

The second factor that determines the rate of lactate removal is whether the individual follows a rest (passive) recovery or an exercise (active) recovery regimen. Thirdly, if an exercise recovery is employed, intensity of exercise expressed in percentage of VO2max. will make difference. Fourth, the modality of exercise employed in the recovery phase may influence the optimal percentage of VO2 max. at which removal occurs (Plowman A. Sharon and Smith L. Denise, 2003).

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Yoga

Practice for Alcohol Dependence

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Introduction

Men are recommended to drink no more than 3 or 4 units of alcohol a day and women are advised to drink no more than 2 or 3 units of alcohol a day; one unit of alcohol is 8 gm or about 10 ml of pure alcohol. Alcohol dependence means drinking excessively i.e. extra than the limits of alcohol drinking. This disorder is a problem when these behaviors become persistent and very incapacitates or worry. Alcohol use can result in the hurt of social, legal, interpersonal and occupational functions. It can lead to a number of harmful physical and psychological effects, such as alcohol poisoning, a chronic disease interfering with the normal functioning of the liver, inability to work and interact with others and causing destruction behaviour, such as drink and driving.

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Acute Effects of Alcohol

- Very high alcohol content in the blood can be fatal. Sudden death can occur as a result of respiratory depression or cardiac arrhythmias. The short-term risks of alcohol misuse include:
- Alcohol poisoning may lead to vomiting, seizures (fits) and falling unconscious
- Accidents and injuries requiring hospital treatment, such as ahead injury.
- Violent behaviour that might lead to being arrested by police.
- Unprotected sex that could potentially lead to unplanned pregnancy or sexually transmitted infections (STIs).
- Loss of personal possessions, such as wallets, keys or mobile phones, leading to stress and anxiety.

Chronic Effects of Alcohol

Tolerance sets in as alcohol intake is prolonged for longer duration. Personneeds more amounts of alcohol to reach desired intoxication state. Chronic heavy intake of alcohol typically causes damage to organs mainlythe brain and nervous system, heart, liver and pancreas. Heavy drinking can also increase your blood pressure and blood cholesterol levels, both of which are major risk factors for heart attacks and strokes. Long - term alcohol dependence can weaken the immune system, making body more vulnerable to serious infections. It can also weaken the bones, which increases risk of fracturing. Some of the conditions thatoccur due to chronic effect of alcohol dependence are High blood pressure

- Stroke
- Pancreatitis
- Liver cirrhosis
- Liver cancer
- Mouth cancer
- Head and neck cancer
- Breast cancer
- Bowel cancer
- Depression
- Dementia
- Sexual problems

As well as having a significant impact on your health, alcohol misuse can also have long term social implications. For example, it can lead to:

- Family break-up and divorce
- Domestic abuse
- Unemployment
- Homelessness
- Financial problems

Treatment

Alcohol dependence treatment depends on how much alcohol a person is drinking. Treatment options include:

Detoxification: A comprehensive detoxification program consists of treatment of long term effects of alcohol, managing signs and symptoms of alcohol withdrawal state and maintenance of abstinence through medication and reassurance. It involves a nurse or doctor supporting the person to safely stop drinking; this can be done by helping the person to slowly cut down over time or by giving the medicines to prevent experiencing of withdrawal symptoms.

Counselling: It includes self-help groups and talking therapies such as cognitive behavioural therapy (CBT).

Medication: There are two main types of medicines to help people stop drinking; the first is to help stop withdrawal symptoms and is given in reducing doses over a short period of time ; the most common medicine that 's used in this way is called chlordiazapoxide ; the second is medication to reduce any urge, person may have to drink, the most common medications used for this are acamprosate and naltrexone. These medicines are given at a fixed dose and person will usually be on them for 6–12 months.

Yogic Management

The line of treatment should be to manage the withdrawal symptoms of the alcohol dependence. Also, the craving for the alcohol has to be retarded. In the meantime the symptoms otherwise developed have to be taken care. The yogic practices that are useful in these cases are:

- Om chanting and prayer :
- Kriyas: Jalneti, Sutraneti, Kunjal, Kapalabhati, Vastradhouti
- Suryanamaskar
- Yogasanas : Pavanamuktasana, Sarvangasana, Matsyasana, Gomukhasana, Vakrasana, Ardhamatsyendrasana, Ushtrasana, Shashankasana, Paschimottanasana, Yogamudrasana, Makarasana, Bhujangasana, Dhanurasana, Tadasana, Urdhwahastottanasana, Shavasana.
- Pranayama: Nadishuddi, Ujjayi, Sitali, Bhramari and Bhastrika.
- Meditation: Breath awareness, Om chanting and Om meditation.
- Yogic diet (Mitahara): Alkaline diet, more of natural foods preferably the liquid diet with very less spice and salt.

Yogic Counseling

Note:

a. Yoga Nidra will be helpful as this practice is believed to act on the subconscious level to bring about a state of homeostasis in the body and mind.

b. In case of acute gastritis, the Kunjal and vastradhouti may be avoided.

Fluid and Hydration in Tennis

Jyoti Mishra*

Abstract

The corner stone of achievements in every sports lies in three major aspects i.e. practice, rest and nutrition, if they are carried out in the required proportional fashion. Tennis is a sport that is discontinue in nature and requires high level of skills with short bursts of high intensity exercises that are anaerobic in nature over the match that may last upto several hours. The characteristics of the game challenges the energy system , nutritional status, tolerance to heat, need of fluid and hydration, etc during training as well as during competition. Exercise-related hypohydration (less than optimal hydration) can reduce performance and lead to health risks. Maintaining appropriate fluid levels before, during, and after tennis practice and competition is vital for performance, as well as health and safety of the athlete. As voluntary fluid ingestion does not provide enough fluid to offset the losses during play, tennis players should employ a structured fluid intake program during practice and match sessions. Tennis scientists, coaches, and players need to individualize hydration protocols to arrive at the optimal hydration strategy.

Key Words: Tennis, fluid requirement, hydration, training and competition.

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Introduction

Being a predominantly summer sport, tennis is often played in very hot and/or humid conditions, meaning issues relating to hydration and heat stress will be of concern. The few studies that have measured sweat losses during tournament or simulated match play have noted losses of between 1.0-2.5 l/hr, which serves only to reflect the large variability in the sweat response between individuals. It is important that players implement strategies to ensure they start matches well hydrated, minimize fluid deficit during, and promote rapid re-hydration after matches. Players are encouraged to monitor their hydration status each day during tournaments. Drink to a plan based on typical sweat rates incurred during training. After matches, they are encouraged to drink volumes of fluid in excess of their existing fluid deficit to account for ongoing sweat and urine losses. When fluid losses have been substantial, players are encouraged to consume fluids with recovery meals/snacks and/or consume sodium containing fluids. This is to not only account for sodium losses, but to also allow for better retention of the fluids consumed, and promote fluid intake. A player's thermoregulator capacity can be diminished if adequate fluid Intake is not maintained. A fully hydrated, average-sized male tennis player (mass ~80 kg) contains approximately 48 l of water. Tennis practice and matches can last up to five hours, and players' sweat rates are often above 1.5 l·h−1. It is not uncommon for athletes to have sweat rates greater than 2.5 l·h−1, 12, 18 which may be more than twice that of the gastric emptying rate (1.2 l·hr−1) for beverages attempting to keep pace with sweat rate of greater than 1.5 l·hr−1.

Factors affecting fluid requirement of tennis players

- Tennis— type of sports as per duration
- Genetics and fitness level
- Environmental conditions
- Body type and composition

Fluid intake and requirements before a practice or match: A competitive tennis player can practice two or three times throughout the same day. During tournament time, it is not unusual to play three or even four matches in a single day. Therefore, fluid replacement after exercise is not only important from a recovery perspective, but also for match preparations or practice sessions. In a healthy tennis player, the kidneys excrete excess body water; therefore, consuming excess fluids typically does not induce hyperhydration. Researchers have tried to develop methods to hyperhydrate athletes to see whether this practice can enhance performance. One method that aids greater fluid retention is supplementing with glycerol, but the numerous side-effects have precluded glycerol supplementation as a practical option. It is important, however, to make sure the tennis athlete is euhydrated before play. The American College of Sports Medicine recommend that athletes to consume between 400 to 600 ml of water 2 hours before exercise (to allow the kidneys time to regulate total body water volume), should be used as a minimum standard for tennis players to help promote euhydration. This volume would need to be higher if the athlete has lost a substantial amount of fluid in the previous match or practice session on the same day, or if the environmental conditions are hot or humid. Prepractice and match hydration should include some carbohydrate, as well as sodium supplementation. In warm-to-hot conditions, tennis players should consume salty foods (pasta sauces, salted pretzels, soups, etc) and add salt to fluids. Approximately 1.5 g·L−1 of sodium should be included in sports drinks or water in the hours leading to practice or competition.

Fluid intake and requirements during a practice or match: Most hydration education and implementation is focused on fluid, and to a lesser extent electrolyte, ingestion during practice and competition. Fluid volume ingested during practice and play is one area

that needs to be individualized for an athlete's sweat rate, environment, acclimation, and training status. A competitive tennis player who has a normal sweat rate of 2.0 L·hr−1 would need to drink 0.25 L (approximately 8.5 ounces) on each changeover (assuming five changeovers per hour) to replace just 62.5% of the hourly lost fluid. If the player was trying to remain euhydrated (2.0 L·hr−1), then 0.40 L (approximately 13.5 ounces) is needed on each changeover. Alternatively, 0.30 to 0.40 L of fluid should be consumed every 15 minutes of exercise (1.2 to 1.6L·hr−1). These figures are chosen because they are equal to, or slightly higher than the approximate gastric emptying rate 1.2 L·hr−1. Any amounts larger than this would be a physiological challenge for the athletes and may produce gastrointestinal discomfort. Palatability of the fluid ingested is important in the amount of voluntary fluid an athlete will consume. The greater the palatability, the greater the volume of fluid an athlete consumes. Athletes consume calorie, or calorie-free, flavored liquid during practice and competition to enhance fluid consumption rates to avoid hypohydration. As voluntary drinking often leads to involuntary hypohydration,a hydration schedules can be developed by the trainer, coach, and athlete by measuring fluid loss. The easiest method is to weigh the athlete before a practice session and then measure how much water is consumed during the session, followed by post exercise weighing of the athlete. After adjusting for any urine losses, the water intake is added to the change in body weight providing the approximate sweat rate and fluid volume change for the athlete. Addition of Na+ concentrations above 20 mmol·L−1 are recommended since urine production is much lower and more ingested fluid is retained. Hydration protocols should be tested in practice, as a full bladder could hamper concentration during competition. Likewise, a higher osmolality prolongs the thirst and results in greater voluntary hydration.

Fluid intake and requirements after a match or practice: Post practice or match hydration is not only important for immediate recovery, but also for performance during play in a subsequent session on the same or the following day. Rehydration after exercise has three major purposes:

- To replace fluid volume to an equal or greater extent than the volume lost while sweating.
- To ingest liquid and/or solid carbohydrates to aid in glycogen resynthesis, and
- To replace electrolytes lost during sweating. Water cannot be the only fluid consumed after tennis play because the athlete is typically in a hypo hydrated state and an increase in plain water will dilute the lowered electrolyte concentration in the blood and plasma even further. This fall in plasma osmolality and Na+ concentration reduces the athlete's drive to drink and stimulates urine output, which could lead to serious consequences (ie, hypohydration and hyponatremia). The addition of Na+ in post exercise beverages has been supported by multiple position stands.40,47 Sodium supplementation after tennis play should be consumed at a rate of ~1.5 g·L−1.18 Although the incidence of hyponatremia is rare in tennis, it does occur and the consequences are life threatening. Athletes and coaches should be educated on the need to consume sodium-rich fluid and food postmatch to limit the possibility of hyponatremia.

Electrolyte replacement: Daily losses of electrolytes sodium and potassium are readily met by the players' daily dietary intake.

- However CHO-electrolyte drinks can.
- enhance fluid retention further assisting rehydration and;
- provide carbohydrate to help delay fatigue

Abnormalities due to fluid deficiency: The regular ingestion of fluids is essential for sporting performance. Hypo-hydration (total body

water below normal) impairs the body's ability to regulate heat resulting in increased body temperature and an elevated heart rate. Perceived exertion is increased causing the athlete to feel more fatigued than usual at a given work rate. Mental function is reduced which can have negative implications for motor control, decision making and concentration. Gastric emptying is slowed, resulting in stomach discomfort. All these effects lead to impairment in exercise performance. The less fluid intake declines in concentration and skill level, improve perceived exertion, cause excessive elevations in heart rate and body temperature and decrease performance .

ELECTROLYTES

- The amount of sodium and chloride in sweat is lower in heat acclimatized players (i.e., those that are used to the heat), but it tends to go up as sweating rate increases.
- Extended tennis play in hot and humid conditions can lead to sizable sodium and chloride losses.
- Inadequate salt replacement (incomplete rehydration) could lead to poorer performance, muscle cramps, and an increased risk for overheating.

For heavy sweaters: Consider adding some salt to their diets and rehydration drinks, especially when playing in a hot environment.

Carbohydrates: 7-10g CHO / kg BW (~500-700 grams per day for a 155-lb player) is required during periods of intense training or competition.

So what do carbohydrates have to do with hydration?

- Each gram of muscle CHO (glycogen) is stored with approximately 3-4g of water, which is released as glycogen is used during exercise.
- Consuming CHOs before and after exercise can therefore help to restore some of your body water reserves.
- Exercise combined with heat stress causes the body to use carbohydrates faster. So, even if you eat well prior to playing, after 60 to 90 minutes of intense singles, chances are you'll need some supplemental carbohydrate to continue playing your best.

How much carbohydrate should you consume during play?

- Usually, 30-60 grams per hour is most effective. Much more than this can delay water and the carbohydrate from being absorbed. Also, ingesting fructose as your primary carbohydrate can delay absorption and may cause gastrointestinal distress.

Practical Heat Acclimatization Guidelines

- Full adaptation takes 7-14days.
- Heat acclimatization is best achieved by strenuous interval training (i.e. tennis) for at least 1 hour per day, at a minimum of every third day.
- Exercise bouts of 1.5-2h seem most effective for the induction of heat acclimatization.
- Acclimatization responses are maintained for at least 1wk, but probably less than 1mo.

Practical Rehydration Guidelines

- Consumption of fluids during rehydration after exercise should exceed fluid lost (130-150%).
- It takes 20-30 min for ingested fluids to be evenly distributed throughout the body.
- The use of sports drinks with 6-8% carbohydrate solution and sodium improves intestinal water absorption.
- Water retention can be optimized by the ingestion of solutions containing at least 50mmol/L of sodium (~3 grams/L of table salt) in a volume 1-1.5 times the amount of sweat lost.
- Heart rate, core temperature and hydration do influence each other during and after

Conclusion

It is important that players implement strategies to ensure they start matches well hydrated, minimize fluid deficit during, and promote rapid re-hydration after matches. Players are encouraged to monitor their hydration status each day during tournaments. Drink to a plan based on typical sweat rates incurred during training. After matches, they are encouraged to drink volumes of fluid in excess of their existing fluid deficit (about 150% of total fluid losses) to account for ongoing sweat and urine losses. When fluid losses have been substantial, playersare encouraged to consume fluids with recovery meals/snacks and/or consume sodium containing fluids. This is to not only account for sodium losses, but to also allow for better retention of the fluids consumed, and promote fluid intake.

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Fitness Industry

Offered Various Fitness Programs

Gaurav Sanotra

The connections between regular exercise/ physical activity and health were not always as obvious as they are today. In fact, as recently as the early 1980s medical and public attitudes towards exercise were quite different. After all, the objectives of 'modern society' were to make life easier to live, not more laborious. Besides jogging, swimming, cycling, and aerobic dancing, physical activity includes yoga, tai chi chuan, martial. its training, gardening, walking etc. For instance, regular walking strengthens muscles, increases aerobic capacity, clears and quiets the mind, reduces stress, expends calories, and causes few injuries, if any. According to the International Health, Racquet and Sports club Association (IHRSA), there are currently more than 40 thousand health fitness facilities in the United States delivering programs in different settings with varied membership structures, which now transforming the Indian fitness market.

Commercial Programs

The Commercial setting has grown both in memberships and facilities during the past two decades: however, membership grown has exceeded facilities development in recent times. It has been observed that commercial fitness centers moving away from single purpose clubs, such as racquetball centers, which have lost 50 percent in membership over last past 10 years, to multipurpose athletic fitness and social club, which has gained almost 5o percent in membership over the past 10 years. Customers of fitness centers moving from indoor only to four season indoor and outdoor clubs; shows customers prefer variation in fitness activity rather monotonous activity. Commercial programs gives greater emphasis on personalized programming using value-added basis, as seen in the rapid growth of personal training offered in clubs. Commercial programs offering pay-as-you-play from as annual dues pricing system, which holds clubs more accountable to members on a regular basis and encourages increased service levels. Fitness and Health clubs focusing on more comprehensive wellness programs addressing increased health concerns of members.

Commercial organization are increasingly forming joint venture with hospital's and other health care providers seeking venture for cost effective delivery sites for preventive managed care. The financial incentives for the commercial sector continue to be a challenge because growth is barely keeping pace with current inflation. Price competition abounds in the commercial sector because fewer facilities are chasing the increasingly sophisticated and demanding consumer. Moreover nonprofit facilities such as YMCA and other community facilities, offer lower prices because they benefit from united way subsidies and government tax relief.

Corporate Programs

There has been growth in the numbers of corporate health fitness program participants in recent years. It is difficult to explain the marked increase in participation rates for corporate health fitness programs, it has been seen that corporate programs are dependent on the size of the workforce. The vast majority of companies have fewer than 100 employee's reveals that companies with fewer than 100 employees are significantly less likely to have health fitness programs than companies with more than 750 employees. Moreover, the variety of programs offerings is less in the smaller companies when compared with the larger companies. The logical assumptions from these data would be that smaller companies do not have the resources to offer the breath of programs seen in the larger companies. However many smaller companies unable to develop in house facilities for health promotion programs, frequently contract these activities to other providers or fitness facilities in local commercial, clinical or economy settings where there is greater economy of scale.

The types of programs in the corporate setting differ from those in other environments. We can presume corporate programs pay dividends to the company by increased employee health and a better bottom line through greater productivity, lower health care costs and fewer absences to maintain a few outcomes. The Professional association for corporate health fitness centers has recently undergone a name change from the Association for Fitness in Business to the Association for Worksite Health Promotion reflecting this broadening concern in the corporate setting. Corporate programs are now addressing many health issues in addition to fitness program development.

Clinical Programs

There are approximately 1000 hospital based health fitness center in the USA, accounting for only 5 percent of the fitness centers available to consumers. Roughly one out of four hospitals now has a health fitness facility providing community outreach programs. Most of these facilities are closely associated with outpatient services, such as physical therapy, sports medicine, and cardiac rehabilitation and frequently provide both types of programs in the same facility. This is especially true where cardiac rehabilitation programs are offered to unmonitored patients not requiring direct physician supervision. The reason for giving such emphasis to hospital based fitness programs is more because of their potential impact than present representation in the health fitness industry. The focus in managed care is to empty rather than fill hospital beds and to reduce rather than increase patient care. The only way this can be effectively accomplished is through prevention, which diminishes health care volume and thus reduces costs. We know that health fitness programs are cost beneficial and cost effective.

Till now there are over 4000 hospitals and only 15 percent have health fitness centers. It is conceivable that the future hospital or comprehensive health care complex having a market service radius of approximately 30 miles, would align itself with several health fitness centers, each with a market service radius of approximately 10 miles. It is also conceivable that a joint venture or even a merger between major players in the health care industry and the health fitness industry could occur in the future.

Community Programs

The community setting consists of many outlets for health fitness services, some outlets such as hotels. We have arbitrarily placed in this grouping. Parks and recreational departments offer fitness programs in many of their community recreation centers. Hotels are increasingly attractive to guests because of newly developed fitness complexes complete with exercise equipments, spas and other amenities. This is especially guests or convention business. The YMCA, YWCA and other non profitable organization have a major presence in the health fitness services offer in the community. Schools and Universities are offering services to their enrolled students and local citizens through community outreach programs. Apartment complexes responding in a similar fashion to hotels are also building fitness complexes to accommodate fitness conscious residents. The magnitude of the community setting in providing health fitness services is enormous.

Research and Development Facility of Sports at LNIPE

A Review

The purpose of the study was to highlight the contribution and achievement of research and development facilities toward the promotion of the Sports in India. Data for the investigation was derived from researches done in the institute by utilizing the scientific equipment of sports from different streams. The focus was mainly around the sports facilities, sports achievements, and research done in LNIPE and their contribution. Through researcher and there research publication was collect valuable data regarding contribution achievements of sports in Institute. The study concludes that an attempt was made to provide the latest knowledge of sports technology facilities in various games. The Research and development facility in sport integrate the training to increase muscle strength, flexibility, agility and coordination, which ultimately would help in enhance sports specific Strength, Power and Endurance through research. The study would be a value able in addition to the Professional literature in sports and physical education. This study will be significant to motivate the new sports generations and inspire the other Sports and Physical Education Institute of India.

Keywords: *Research and Development, Sports facilities, LNIPE*

Introduction

Excellent performance in sports and games at national and international levels is a matter of pride for all nations of the world. Countries have been utilizing sizeable resources and providing best of facilities to develop and sustain sports talent at the highest level. The performance in sports and games is one major yardstick of the nation's quality of human development.

The Ministry of Youth Affairs and Sports (MYAS) is the nodal Ministry in the Government of India to take care of the development of sports and games in the country. The Ministry is operating various schemes to achieve broad-basing of sports and excellence in sports. The present scenario indicates the absence of adequate human resources in areas of health and physical education, sports sciences and sports medicine. These are vital areas requiring immediate attention, because the performance of an athlete depends significantly on the availability of right inputs from sports scientists and sports medicine specialists.Similarly, enough attention is not being given to research and publication in the field of sports and games. Adequate attention is required to be given to take up/encourage research work in sports-related matters which will have long term impact on excellence in sports and games in the country. Another area, which needs attention, is publication of outstanding works in sports making significant contribution to the available literature in the sports sector.

Lakshmibai National Institutes of Physical Education engaged in sports-related activities will be encouraged to undertake specific topics on sports-related issues. Individual applications from subject specialists and research scholars, who are already working in such fields, will also be considered for R & D studies. The topics of research should have direct bearing on the problems specific to sports- related issues or it should be relevant for the overall improvement of sports and games. Such studies should lead to innovative solutions to the problems in the field of sports in India. The topics may cover (but not limited to) subjects like Sports Biomechanics, Exercise Physiology, Sports Psychology, Sports Medicine, Injury-related matters, Improvement in performance, Identification of potential target groups in different disciplines, Specific sociological studies related to sports and sportspersons etc.

LNIPE is an Elite Physical Education Institute in India. Our students go as Physical Education Teachers, Fitness Instructors, Fitness Manager in various Government and private institute of National & International repute across India and aboard. In an effort to educate our students on latest available in today's industry. We should provide the latest available information and equipment's. This will enable them to have hands on training before they go and work. It would enhance institute credibility and overall career development of our students and sports persons. Therefore quality equipment (i.e. being used worldwide by Olympic associations, top sporting universities etc) should be used to measure the following non-invasively.

Following sections are to be incorporated:

1. Sports Training

(in term of fitness/ body building machines)- Cardio Section comprising of Treadmills, Cycles, Cross trainers, Rowing machines etc, weight Training machines with correct biomechanics, Balance & Stability, Pilates, Spinning.

Dr. Deepak Sharma (2014) investigate that to measure the relative strength of various throwers of different groups, the data was collected from the best lift of the three parameters i.e. bench press, full squat and dead lift along with the body weight of individual thrower. The subjects were given three chances for each of the parameter with sufficient resting phase in between. The sum of the best 3 lifts of respective parameter has been divided with the body weight of the subject to get the relative strength.

The mean values of the entire three groups are given in table.

Table-1
Mean of scores of the relative strength of throwers from different events in throwing

Groups	Count	Sum	Average	Variance
Shot Putters	10	48.814	4.8814	0.19576
Discus Throwers	10	55.185	5.5185	0.106882
Hammer Throwers	10	53.687	5.3687	0.280359

M=Mean value of relative strength in kilograms.

Table indicates that there were significant differences in the shot putters and discus throwers. After applying the Post Hoc Test it was found that there was significant difference in the first and second group in their relative strength. However group I (shot putters) had higher relative strength.

2. Sports Biomechanics

The biomechanical analysis constitutes today a revolutionary assisting means for recording analysis both qualitative and quantitative and improvement of human movement. With the development of photography, it becomes possible to capture image sequences which reveal details of human motion that are not noticeable by watching the movement with naked eye. The improving performance trends in the sprint event are to some extent the result of improving block starting and running technology. Biomechanics is an applied form of mechanics, and consequently the methods used to investigate it must be derived from those of mechanics. However the mechanics have not developed in the wake of mechanics, but a bordering science in other scientific discipline such as anatomy, physiology and the techniques of sport (Cloude,1992).

Photo and Stick Figure from Set Position to First Step

Dr. Satpal Yadav (2015) investigate study of Two Dimensional Kinematic Analysis of Set position to First Step with Sprinting Performance of University Athletes showed that there were significant differences found between Inter varsity and Inter college athletes in there, Trajectory Knee, Trajectory Ankle, Displacement Knee, Displacement Ankle, Linear Velocity Knee, Linear Velocity Ankle and Linear Acceleration Ankle whereas insignificant difference was found between Intervarsity and Intercollege in their Linear Acceleration Knee joint.

Table 2 Descriptive Statistics of Selected Kinematical Parameters

Group	Mean/ SD	Kinematical Variables							
		TK (m)	TA (m)	DK (m)	DA (m)	LVK (m/s)	LVA (m/s)	LAK (m/s^2)	LAA (m/s^2)
Intercollegiate	Mean	1.85	1.98	0.031	0.038	1.31	1.34	0.53	1.25
	SD	0.51	0.57	0.07	0.09	2.31	2.07	18.13	32.17
Intervarsity	Mean	1.95	2.22	0.031	0.003	1.91	2.31	7.86	11.85
	SD	0.45	0.46	0.20	0.11	2.85	3.88	26.30	39.19

3. Human Performance Assessment

With latest available machines and techniques to judge the effect of training on students. This would provide proof of progress to the Users.

Cardiac, neuromuscular, metabolic, energy Supply, HRV (Heart Rate Variability, Optimizing training and recovery process,

equipment capable of measuring muscular performance on the field, allowing for testing and evaluating an athlete and thereby optimizing training, Force Platform, to be able to measure Balance and Explosive Power that an athlete is able to generate, Machines for testing muscle strength and movements, Agility and Reaction Time Testing equipment's, Computerized Body Composition Analyser, Software for Video Coaching and Analysis and equipment for Muscles Relaxation.

Dr. Amar Kumar (2014)study shows in table ANOVA of electromyographical activity of muscles while spiking clearly reveals significant difference in electrical activity between muscles, between stages and interaction between muscles and stages of technique. The F- ratio value observed between muscles and between stages are 27.099, 20.488 and 66.301 respectively which are significant because the tabulated value of F- ratio between muscles, between stages and interaction between muscles and stages are 1.67, 3.86, and 1.67 respectively.

Table3 Univariate analysis of variance of Lectromyographic activity at different stages during Volleyball Spike

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Muscles	4136256.175	17	243309.187	27.099	.000
Stages	183952.983	1	183952.983	20.488	.000
Muscles * stages	10119964.303	17	595292.018	66.301	.000
Error	4525241.748	504	8978.654		

4. Exercise Physiology

Dr. Ankan Sinha (2012) investigate to compare the Physiological variables such as Maximum oxygen consumption (VO_2 max), Vital capacity, Resting heart rate, Hemoglobin contents between the various distance runners i.e. short, middle and long distance runners. The comparison of each physiological variables such as VO_2 max. was determined by the Rockport walking test. Maximum volume of air expired after forced inspiration corrected to $1/10^{th}$ of a liter. It obtained by the help of dry Spiro meter. Resting heart rate was obtained by number of heart beats/minute during the resting condition. Hemoglobin content wasassess by conducting the test in institute laboratory.

The short distance runners had shown significantly different level of VO2 max. (72.727) in comparison to middle distance (75.854) and long distance (77.094) runners. However, the middle and long distance runners had shown more or less same level of VO2. Further long distance runners had shown better efficiency of

heart as its mean value (56.3) was lowest among all the three groups in relation to resting heart rate. On the other hand long, middle and short distance runners had shown more or less same vital capacity and haemoglobin content with a small range of variation.

5. Yoga and Naturopathy

The physical body that is exposed to the processes of yoga is freed from old age, disease and death

Dr. Satpal Yadav (2014) investigates that Yoga may be as effective as or better than exercise at improving a variety of health-related outcome measures and as a result this study was undertaken to find out the effects of 12-Week Yogic Therapy on Diabetic Patients: As shown in table 3 that the value of pre-test of experimental group and post-test of experimental group mean was 234.5 and 127.6 respectively. Whereas the value of pre-test of control group and post-test of control group mean was 232.8 and 233.8. The obtained value of t-ratio was 8.587 which were found significant at selected level.

Naturopathy is a natural healing technique using the healing powers of nature. The principle of Naturopathy is that the accumulation of toxins is the root cause of all diseases. Prevention and elimination of toxins is the route to health.

It is also important that teachers at LNIPE be abreast with latest technology that the same can be imparted to their students who will go all over India as instructors, teachers, fitness experts etc.

6. Sports Psychology

Research and practice are viewed as mutually informative and psychologists conduct research in a wide range of areas, including those of the counselling relationship and other psychotherapeutic processes, the multicultural dimensions of psychology, and the roles of work and mental health in optimal functioning.

Dr. Baljinder Singh Bal (2012) investigate the effect of an exercises program with Swissball on selected static and dynamic balance published in biology of exercise.

Table 3- Comparison of Mean Values Between pre and Post-test of the Blood Sugar Level of the Experiment Group and Control Group

Group	Experimental (Pre-test)	Experimental (Post-test)	Control (Post-test)	Control (Post-test)
Number	15	15	15	15
Mean	234.5	127.6	232.8	233.8
S.D	46.88	15.16	65.10	64.93
SEM	12.10	3.91	0.166	0.167
't' Value	8.587		0.269	

Mean Values (± SD) of static and dynamic balance in the training group (N = 12) before (Pre) and after (Post) of 6-weeks of exercise program with Swiss ball

Variables	Training Group			Control Group		
	Pre-Test	Post-Test	T-value	Pre-Test	Post-Test	T-value
Static Balance	20.00	22.75	4.75*	18.66	18.75	0.158
Dynamic Balance	18.91	21.00	3.74*	17.58	18.16	1.46

The research aimed to design an exercises program with Swiss ball and recognize its effect on static and dynamic balance in inter university basketball players. The researcher utilized the experimental method on a sample of (24) female basketball players (mean±SD: age 21.79±1.72 years, height 1.64± 0.034 m, body mass 61.208 ±3.476 kg). All participants were informed about the study aim and methodology as well as about the possibility of immediate acceptance at any time of the experimentation. Subjects agreed to the above conditions in writing. They were randomly assigned into two groups: A (Training Group) and B (Control Group), n=12 each. The training group were subjected to 6-weeks of swiss ball exercises program. This training program lasted 6-weeks and consisted of daily sessions, lasting 45 min each. The subjects completed the stork stand and wobble board tests to determine static and dynamic balance on the leg respectively. The training group significantly improved static and dynamic balance compared to the control. The swiss ball exercises program may be recommended to improve static and dynamic balance and may contribute to enhance concentration based performance.

Discussion

In this paper, an attempt was made to provide the latest knowledge of sports technology facilities in various games. In this entire manifest we discuss about the qualities which give benefit to players for enhance their games through this research based equipment's. Now we offer an atmosphere to learn, teach and improve to provide a physical training center to candidates, enable Sports person to enhance their functional explosive strength. Most important for their performance, enable Trainers to create training programs for their team or individuals, provide "Joint training sessions" for group to share and understand individual ways of training, provide facilities under one roof from Warm Up to an Intense training, provide the latest and bio-mechanically correct equipment's for development of sports persons. The Research and development facility in sport integrate the training to increase muscle strength, flexibility, agility and coordination, which ultimately would help in enhance sports specific Strength, Power and Endurance through research.

Dr. Satpal Yadav (2014).Advance in physics theories and application."Two Dimensional Kinematic Analysis of Set position to First Step with Sprinting Performance of University Athletes".Vol. 38.p.p--42

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"Do you know what my favorite part of the game is? The opportunity to play."

— Mike Singletary

"If at first you don't succeed, you are running about average." *—M.H. Alderson*

"How you respond to the challenge in the second half will determine what you become after the game, whether you are a winner or a loser." —Lou Holtz

"Good is not good when better is expected." *—Vin Scully*

"The difference between the impossible and the possible lies in a person's determination." *—Tommy Lasorda*

"Champions keep playing until they get it right." *—Billie Jean King*

A Review

Prof. Biswajit Basumatry
Dr. Satpal Yadav

Research and Development Facility of Sports at LNIPE

The purpose of the study was to highlight the contribution and achievement of research and development facilities toward the promotion of the Sports in India. Data for the investigation was derived from researches done in the institute by utilizing the scientific equipment of sports from different streams. The focus was mainly around the sports facilities, sports achievements, and research done in LNIPE and their contribution. Through researcher and there research publication was collect valuable data regarding contribution achievements of sports in Institute. The study concludes that an attempt was made to provide the latest knowledge of sports technology facilities in various games. The Research and development facility in sport integrate the training to increase muscle strength, flexibility, agility and coordination, which ultimately would help in enhance sports specific Strength, Power and Endurance through research. The study would be a value able in addition to the Professional literature in sports and physical education. This study will be significant to motivate the new sports generations and inspire the other Sports and Physical Education Institute of India.

Keywords: *Research and Development, Sports facilities, LNIPE*

INTRODUCTION

Excellent performance in sports and games at national and international levels is a matter of pride for all nations of the world. Countries have been utilizing sizeable resources and providing best of facilities to develop and sustain sports talent at the highest level. The performance in sports and games is one major yardstick of the nation's quality of human development.

The Ministry of Youth Affairs and Sports (MYAS) is the nodal Ministry in the Government of India to take care of the development of sports and games in the country. The Ministry is operating various schemes to achieve broad-basing of sports and excellence in sports. The present scenario indicates the absence of adequate human resources in areas of health and physical education, sports sciences and sports medicine. These are vital areas requiring immediate attention, because the performance of an athlete depends significantly

on the availability of right inputs from sports scientists and sports medicine specialists. Similarly, enough attention is not being given to research and publication in the field of sports and games. Adequate attention is required to be given to take up/encourage research work in sports-related matters which will have long term impact on excellence in sports and games in the country. Another area, which needs attention, is publication of outstanding works in sports making significant contribution to the available literature in the sports sector.

Lakshmibai National Institutes of Physical Education engaged in sports-related activities will be encouraged to undertake specific topics on sports-related issues. Individual applications from subject specialists and research scholars, who are already working in such fields, will also be considered for R&D studies. The topics of research should have direct bearing on the problems specific to sports-related issues or it should be relevant for the overall improvement of sports and games. Such studies should lead to innovative solutions to the problems in the field of sports in India. The topics may cover (but not limited to) subjects like Sports Biomechanics, Exercise Physiology, Sports Psychology, Sports Medicine, Injury-related matters, Improvement in performance, Identification of potential target groups in different disciplines, Specific sociological studies related to sports and sportspersons etc.

LNIPE is an elite Physical Education Institute in India. Our students go as Physical Education Teachers, Fitness Instructors, Fitness Manager in various government and private institutes of national and international repute across India and aboard. In an effort to educate our students on latest available in today's industry. We should provide the latest available information and equipment's. This will enable them to have hands on training before they go and work. It would enhance institute credibility and overall career development of our students and sports persons. Therefore, quality equipment (i.e. being used worldwide by Olympic Associations, top sporting universities etc) should be used to measure the following non-invasively.

1. Sports Training in term of fitness/ body building machines

Cardio section comprising of Treadmills, Cycles, Cross trainers, Rowing machines etc, weight Training Machines with correct biomechanics, Balance & Stability, Pilates, Spinning.

Dr. Deepak Sharma (2014) investigated that to measure the relative strength of various throwers of different groups, the data was collected from the best lift of the three parameters i.e. bench press, full squat and dead lift along with the body weight of individual thrower. The subjects were given three chances for each of the parameter with sufficient resting phase in between. The sum of the best 3 lifts of respective parameter has been divided with the body weight of the subject to get the relative strength.

The mean values of the entire three groups are given in table.

Table-1
Mean of scores of the relative strength of throwers from different events in throwing

Groups	Count	Sum	Average	Variance
Shot Putters	10	48.814	4.8814	0.19576
Discus Throwers	10	55.185	5.5185	0.106882
Hammer Throwers	10	53.687	5.3687	0.280359

M=Mean value of relative strength in kilograms.

Table indicates that there were significant differences in the shot putters and discus throwers. After applying the Post Hoc Test it was found that there was significant difference in the first and second group in their relative strength. However, group I (shot putters) had higher relative strength.

2. Sports Biomechanics

The biomechanical analysis constitutes today a revolutionary assisting means for recording analysis both qualitative and quantitative and improvement of human movement. With the development of photography, it becomes possible to capture image

Table 2: Descriptive Statistics of Selected Kinematical Parameters									
Group	**Mean/ SD**	**Kinematical Variables**							
		TK (m)	TA (m)	DK (m)	DA (m)	LVK (m/s)	LVA (m/s)	LAK (m/s^2)	LAA (m/s^2)
Intercollegiate	Mean	1.85	1.98	0.031	0.038	1.31	1.34	0.53	1.25
	SD	0.51	0.57	0.07	0.09	2.31	2.07	18.13	32.17
Intervarsity	Mean	1.95	2.22	0.031	0.003	1.91	2.31	7.86	11.85
	SD	0.45	0.46	0.20	0.11	2.85	3.88	26.30	39.19

sequences which reveal details of human motion that are not noticeable by watching the movement with naked eye. The improving performance trends in the sprint event are to some extent the result of improving block starting and running technology. Biomechanics is an applied form of mechanics, and consequently the methods used to investigate it must be derived from those of mechanics. However the mechanics have not developed in the wake of mechanics, but a bordering science in other scientific discipline such as anatomy, physiology and the techniques of sport (Cloude, 1992).

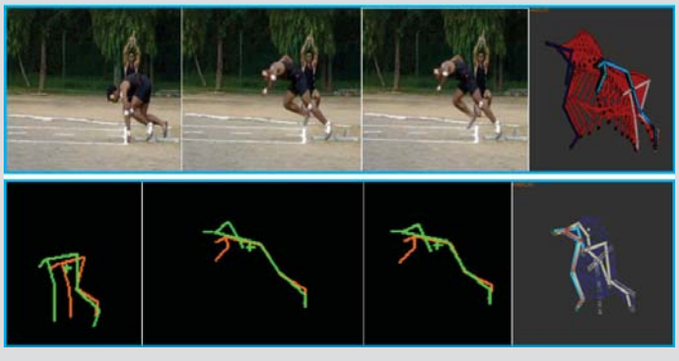

Photo and Stick Figure from Set Position to First Step

Dr. Satpal Yadav (2015) investigate study of Two Dimensional Kinematic Analysis of Set position to First Step with Sprinting Performance of University Athletes showed that there were significant differences found between Inter varsity and Inter college athletes in there, Trajectory Knee, Trajectory Ankle, Displacement Knee, Displacement Ankle, Linear Velocity Knee, Linear Velocity Ankle and Linear Acceleration Ankle whereas insignificant difference was found between Intervarsity and Intercollege in their Linear Acceleration Knee joint.

3. Human Performance Assessment

With latest available machines and techniques to judge the effect of training on students. This would provide proof of progress to the Users:

Cardiac, neuromuscular, metabolic, energy Supply, HRV (Heart Rate Variability, Optimizing training and recovery process, equipment capable of measuring muscular performance on the field, allowing for testing and evaluating an athlete and thereby optimizing training, Force Platform, to be able to measure Balance and Explosive Power that an athlete is able to generate, Machines for testing muscle strength and movements, Agility and Reaction Time Testing equipments, Computerized Body Composition Analyser, Software for Video Coaching and Analysis and equipment for Muscles Relaxation.

Dr. Amar Kumar (2014) study shows in table ANOVA of electromyographical activity of muscles while spiking clearly reveals significant difference in electrical activity between muscles, between stages and interaction between muscles and stages of technique. The F-ratio value observed between muscles and between stages are 27.099, 20.488 and 66.301 respectively which are significant because the tabulated value of F-ratio between muscles, between stages and interaction between muscles and stages are 1.67, 3.86, and 1.67 respectively.

4. Exercise Physiology

Dr. Ankan Sinha (2012) investigated to compare the Physiological variables such as Maximum oxygen consumption (VO_2 max), Vital capacity, Resting heart rate, Hemoglobin content between the various distance runners i.e. short, middle and long distance runners. The comparison of each physiological variables such as VO_2 max. was determined by the Rockport walking test. Maximum volume of air expired after forced inspiration corrected to $1/10^{th}$ of a liter. It obtained by the help of dry Spiro meter. Resting heart rate was obtained by number of heart beats/minute during the resting condition. Hemoglobin content wasassess by conducting the test in institute laboratory.

The short distance runners had shown significantly different level of VO_2 max. (72.727) in comparison to middle distance (75.854) and long distance (77.094) runners. However, the middle and long distance runners had shown more or less same level of VO_2. Further long distance runners had shown better efficiency of heart as its mean value (56.3) was lowest among all the three groups in relation to resting heart rate.

On the other hand long, middle and short distance runners had shown more or less same vital capacity and haemoglobin content with a small range of variation.

Table 3: Univariate Analysis of Variance of Lectromyographic Activity at Different Stages during Volleyball Spike

Source	Type III Sum of Squares	df	Mean Square	F	Sig. Sig.
Muscles	4136256.175	17	243309.187	27.099	.000
Stages	183952.983	1	183952.983	20.488	.000
Muscles * stages	10119964.303	17	595292.018	66.301	.000
Error	4525241.748	504	8978.654		

5. Yoga and Naturopathy

The physical body that is exposed to the processes of yoga is freed from old age, disease and death

Dr. Satpal Yadav (2014) investigates that Yoga may be as effective as, or better than, exercise at improving a variety of health-related outcome measures and as a result this study was undertaken to find out the effects of 12-Week Yogic Therapy on Diabetic Patients: As shown in Table 3 that the value of pre-test of experimental group and post-test of experimental group mean was 234.5 and 127.6 respectively. Whereas the value of pre-test of control group and post-test of control group mean was 232.8 and 233.8. The obtained value of t-ratio was 8.587 which were found significant at selected level.

Table 4: Comparison of Mean Values Between pre and Post-test of the Blood Sugar Level of the Experiment Group and Control Group

Group	Experimental (Pre-test)	Experimental (Post-test)	Control (Post-test)	Control (Post-test)
Number	15	15	15	15
Mean	234.5	127.6	232.8	233.8
S.D.	46.88	15.16	65.10	64.93
SEM	12.10	3.91	0.166	0.167
't' Value	8.587		0.269	

Naturopathy is a natural healing technique using the healing powers of nature. The principle of Naturopathy is that the accumulation of toxins is the root cause of all diseases. Prevention and elimination of toxins is the route to health.

It is also important that teachers at LNIPE be abreast with latest technology that the same can be imparted to their students who will go all over India as instructors, teachers, fitness experts etc.

6. Sports Psychology

Research and practice are viewed as mutually informative and psychologists conduct research in a wide range of areas, including those of the counselling relationship and other psychotherapeutic processes, the multicultural dimensions of psychology, and the roles of work and mental health in optimal functioning.

Dr. Baljinder Singh Bal (2012) investigate the effect of an exercises program with Swissball on selected static and dynamic balance published in biology of exercise. The research aimed to design an exercises program with Swiss ball and recognize its effect on static and dynamic balance in inter university basketball players. The researcher utilized the experimental method on a sample of (24) female basketball players (mean±SD: age 21.79±1.72 years, height 1.64± 0.034 m, body mass 61.208 ±3.476 kg). All participants were informed

Table 5: Mean Values (+ SD) of static and dynamic balance in the training group (N = 12) before (Pre) and after (Post) of 6-weeks of exercise program with Swiss ball

Variables	Training Group			Control Group		
	Pre-Test	Post-Test	T-value	Pre-Test	Post-Test	T-value
Static Balance	20.00	22.75	4.75*	18.66	18.75	0.158
Dynamic Balance	18.91	21.00	3.74*	17.58	18.16	1.46

about the study aim and methodology as well as about the possibility of immediate acceptance at any time of the experimentation. Subjects agreed to the above conditions in writing. They were randomly assigned into two groups: A (Training Group) and B (Control Group), n=12 each. The training group were subjected to 6-weeks of swiss ball exercises program. This training program lasted 6-weeks and consisted of daily sessions, lasting 45 min each. The subjects completed the stork stand and wobble board tests to determine static and dynamic balance on the leg respectively. The training group significantly improved static and dynamic balance compared to the control. The swiss ball exercises program may be recommended to improve static and dynamic balance and may contribute to enhance concentration based performance.

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Dr. Satpal Yadav

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History, Sports and Controversy

Preservation or Extinction of Wrestling from Olympic Games-Decision Making Contentions

The present paper is an attempt to access to metrics showed them that wrestling's time as an Olympic sport had to come to an end or preserve. Wrestling, a sport with a tradition dating to the ancient Olympics, has gone through a major upheaval since it was dropped by the IOC. The International Olympic Committee (IOC) convened in order to decide which of the 26 core Olympic sports would be dropped from the 2020 summer games in order to make room for the inclusion of a new sport. The IOC had access to a report that contained all kinds of important data that was never actually distilled into anything useful and then voted with sentimental, political, and emotional factors in mind. Seems like a good way to run an international sporting event. Wrestling is competing against seven other sports for a single opening on the 2020 lineup. The others are a combined baseball-softball bid, karate, roller sports, sport climbing, squash, wakeboarding and the Chinese martial art of wushu. The federations will make closed-door presentations to the IOC executive board, which will decide which sport or sports to recommend to the IOC general assembly for a final vote Sept. 8 in Buenos Aires, Argentina.

Keywords: *Wrestling, International Olympic Committee (IOC), Contentions*

1. INTRODUCTION

The sport of wrestling has a long and storied history at the Olympics. Wrestling is the among the oldest competitive sports in the world (cave drawings from as early as 3,000 B.C. depict wrestler) and was introduced at the ancient Olympic Games in the year 708 B.C. (Cline, 2007) When the Olympics were revived in 1896, wrestling became a focus of the event due to its historical significance. The most well-known ancient sporting event is the ancient Olympic Games. Begun as a religious festival, the ancient Games consisted of athletic events, such as foot races and discus throwing, combat sports, such as boxing, pankration, and wrestling, and equestrian events, such as chariot racing. (Poliakoff, 1987)

Wrestling was highly valued as a form of military exercise without weapons. In 1904, freestyle wrestling was first introduced during the St. Louis Games. It

was only during the fourth Olympic Games held in London in 1908 that competitions were organized for both styles. It is one of the 26 core Olympic sports. 180 countries vied to play at the 2012 Games, with only 71 making the cut. 29 countries won medals, and around 23 million viewers watched them compete at the 2012 Olympics.

Figure 1. http://www.olympic.org/Assets/OSC%20Section/pdf/QR_sports_summer/Sports_Olympiques_lutte_gr%C3%A9co_romaine_eng.pdf

Mr. Raphael Martinetti, President of FILA asked for a vote of confidence. When only 50% of his Board voted to support him, he resigned as FILA President (IOC Executive Board). Although wrestlers will be able to continue to compete in the world games, United States wrestlers have expressed grave disappointment at the possibility that they could be excluded from future Olympics (Dave, 2012). In a stunning surprise, the International Olympic Committee dropped wrestling, which has been a part of the modern games since they began in 1896, from the Summer Olympics starting in 2020.

II. DISCUSSION & ANALYSIS

Wrestling does have some issues:- FILA, the wrestling federation, has done next to nothing to protect it because they believed they would not see such a classic sport removed. However, deeper issues exist in the IOC The same meeting that resulted in the decision to remove wrestling from the 2020 Olympics was the one that voted to keep 'modern pentathlon'.

A contrived sport consisting of the seemingly random activities of pistol shooting, horseback riding, cross-country running, fencing, and swimming, it attracts only 12.5 million viewers and only 26 countries (less than the number of medal-winning countries (29) in wrestling) bothered to compete in the event in 2012. A total of 53 countries play the sport. By removing wrestling as a sport, they are robbing the millions of wrestlers worldwide the opportunity to represent their country on the highest international stage, and keeping an unneeded sport that nobody plays instead. PelleSvensson, a former two-time world champion (Greco-Roman 100 kg class) and member of board of FILA from 1990 to 2007, has described FILA as an inherently corrupt organization (Daniel 2008).

1. Three Main Contentions

(a) Historical pertinence:

In the ancient Greek Olympics, wrestling matches ended in brutal death, and they would fight naked in olive oil. Tradition is never an important point in any debate. Sometimes we must look past tradition and move on for what is best for everybody. Also, the brutal early Greek Olympics, modern pentathlon has been around just as long as wrestling.

(b) International Diversity-Wrestling vs. Pentathlon:

While this is true, wrestling only has a few more countries than modern pentathlon. Also, modern pentathlon contains many more sports than wrestling, which is just Greco Roman and free-styling. Modern pentathlon is more fun to watch because it is exciting, fast paced, and diverse in its fields.

(c) Modern Pentathlon:

Modern pentathlon is much more exciting and fun to watch, and also, it is not the case of why modern pentathlon is better than wrestling, but the main flaws of wrestling.

2. The Olympic Charter lays out seven fundamental principles

(a) Olympism is a philosophy of life, exalting and combining in a balanced whole the qualities of body, will and mind. Blending sport with culture and education, Olympism seeks to create a way of life based on the joy of effort, the educational value of

good example, social responsibility and respect for universal fundamental ethical principles.

(b) The goal of Olympism is to place sport at the service of the harmonious development of humankind, with a view to promoting a peaceful society concerned with the preservation of human dignity.

(c) The Olympic Movement is the concerted, organized, universal and permanent action, carried out under the supreme authority of the IOC, of all individuals and entities who are inspired by the values of Olympism. It covers the five continents. It reaches its peak with the bringing together of the world's athletes at the great sports festival, the Olympic Games. Its symbol is five interlaced rings.

(d) The practice of sport is a human right. Every individual must have the possibility of practicing sport, without discrimination of any kind and in the Olympic spirit, which requires mutual understanding with a spirit of friendship, solidarity and fair play.

(e) Recognizing that sport occurs within the framework of society, sports organizations within the Olympic Movement shall have the rights and obligations of autonomy, which include freely establishing and controlling the rules of sport, determining the structure and governance of their organizations, enjoying the right of elections free from any outside influence and the responsibility for ensuring that principles of good governance be applied.

(e) Any form of discrimination with regard to a country or a person on grounds of race, religion, politics, gender or otherwise is incompatible with belonging to the Olympic Movement.

(g) Belonging to the Olympic Movement requires compliance with the Olympic Charter and recognition by the IOC.

It can clearly present the case that wrestling should not be eliminated as: The Olympics serve to entertain, Wrestling entertains more than modern pentathlon because it gets more viewers, wrestling, not modern pentathlon, should be in the Olympics.

3. Gender Equality

Gender equality is a major issue in sport, but some sports just tend to be dominated by one gender or the other. In the United States there are over 270,000 high school wrestlers, out of which only around 8,200 are women. In other words, for every 1 female wrestler there are 32 male wrestlers. While this is an issue, this is more the fault of wrestling being a male-oriented sport than it is of blatant sexism. Regardless, I don't see anyone complaining that there isn't a male division for rhythmic gymnastics or synchronized swimming.

4. Monetary Impact

It contests that wrestling has among the most distinct events of any Olympic sport, but I would like to see conclusive proof that the monetary impact of retaining wrestling is significant enough to warrant exclusion.

5. Match Fixing

Match fixing is an issue in almost every sport. If we were to remove wrestling because of it, sports like soccer and basketball would be targets as well because some people try and fix matches.

6. Wrestling Leader Confident of IOC Reprieve

(a) Braley Presses IOC to Reconsider Decision to End Wrestling at the Olympics

Letter to IOC Chairman from Rep. Bruce Braley - Letter from IOC Chairman to Rep. Bruce Braley

BRUCE L. BRALEY
1st District, Iowa

Congress of the United States
House of Representatives
Washington, DC 20515

(202) 225-2911
FAX (202) 225-6666
http://braley.house.gov

February 13, 2013

Count Dr. Jacques Rogge
President
International Olympic Committee Executive Board
Château de Vidy
Case postale 356
1001 Lausanne
Switzerland

Dear Dr. Rogge,

I'm writing in strong opposition to the Committee's decision yesterday to remove wrestling from the Olympic program. As you know, wrestling is one of the oldest Olympic sports, dating to the games of the ancient Greeks. Given the sport's proud tradition at the Olympics, I urge the committee to re-consider its decision and reinstate wrestling as an Olympic sport.

Wrestling has long been a sport which broke down diplomatic barriers during times of international tension. U.S. wrestlers traveled to Tbilisi, Georgia during the Cold War, and wrestled their brothers from the Soviet Union. After the Iranian hostage crisis, U.S. wrestlers traveled to Tehran and opened doors for deeper understanding between citizens of both countries. This shining example of Citizen Diplomacy is the core value on which the modern Olympic movement was founded. It would be a travesty to consign the moments to the dustbin of history simply because of something as trivial as television ratings.

I'm proud to tell you that my home state of Iowa has a strong wrestling history and tradition. This proud history includes wrestling legends such as Frank Gotch, Dan Gable and Cael Sanderson. Twenty-nine people with ties to Iowa have won World and Olympic Medals. I'm very disappointed that the Committee is depriving future Iowa wrestlers of the opportunity to achieve their dream of winning an Olympic medal.

I urge the committee to reinstate wrestling as an Olympic sport. I ask that the Committee please respond to my letter within 10 business days informing me as to whether or not they will reinstate wrestling as an Olympic sport.

Sincerely,

Bruce L. Braley
Member, United States Congress

Cc:
James Ravannack, President, USA Wrestling
Dan Gable, National Wrestling Hall of Fame Dan Gable Museum
Kyle Klingman, Director National Wrestling Hall of Fame Dan Gable Museum
Tom Brands, University of Iowa
Kevin Jackson, Iowa State University
Doug Schwab, University of Northern Iowa
Cael Sanderson, Penn State University

INTERNATIONAL OLYMPIC COMMITTEE

The President

The Honorable Bruce L. Braley
2263 Rayburn House Office Building
United States House of Representatives
Washington, DC 20515
United States of America

Lausanne, 21 February 2013

Dear Representative Braley,

Thank you for sharing your thoughts on wrestling and the Olympic Programme. I appreciate your interest in this matter and your passion for wrestling. You and the citizens of Iowa have good reason to be proud of the many great wrestlers and Olympic champions from your state.

To provide a little background, the International Olympic Committee regularly reviews the sports on the Olympic Programme to ensure that it has the right mix to maintain the appeal and relevance of the Olympic Games. I can assure you that decisions about which sports to include are based on factors well beyond any question of television ratings. No sport is judged in isolation. The task before the IOC Executive Board was to recommend the right combination of 25 sports based on a wide variety of factors. For example, it is important to strike the right balance between team sports and individual sports; between combat sports and other sports; and between sports decided by objective measurements and sports that depend heavily on judging.

It is never an easy decision. In recommending 25 sports for the Olympic Programme for 2020, the members of the IOC Executive Board applied their collective wisdom gained through years of experience in all areas of sport — as competitors, as administrators and as Olympians.

Wrestling is, and will always be, a great sport. It will remain on the Olympic Programme for the 2016 Games. It is also important to note that the Executive Board's recommendation is not the final decision. Wrestling will now join seven other sports seeking a place on the Olympic Programme for 2020. The full International Olympic Committee will make the final judgment at the IOC Session in September.

With very best regards,

Jacques Rogge

cc:
Larry PROBST, President, United States Olympic Committee
Scott BLACKMUN, Secretary General, United States Olympic Committee
Anita DEFRANTZ, IOC Member
James EASTON, IOC Member
Angela RUGGIERO, IOC Member

Figure 2. http://braley.house.gov/press-release/braley-presses-ioc-reconsider-decision-end-wrestling-olympics

"Wrestling's historical and international importance across hundreds of years should not be so arbitrarily dismissed by the Olympic Committee. Wrestling is more than a sport. It has broken down diplomatic barriers during times of international crisis like the Cold War and the Iranian Hostage Crisis, and brings deeper understanding to citizens of many different cultures and nations. That's at the heart of the Olympic movement and what it means,".

The full text of Braley's letter to IOC Chairman Count Dr. Jacques Rogge follows; a copy of Braley's Letter can be found at the following link: http://1.usa.gov/XzZSmd

(b) Olympic champions Huynh, Igali will plead wrestling's case to IOC

Olympic champion Carol Huynh believes wrestling is one of the purest sports.There's no equipment, no padding – just "your hands, your heart and your mind." "Those are the things that you bring to the Olympic Games with this sport," Huynh said. "I feel very strongly about this."The 32-year-old hopes to convey that when she and fellow Olympic gold medallist Daniel Igali plead their sport's case to the International Olympic Committee on May 29 in a bid to keep wrestling on the Games program.The sport's gender issues, including the fact there is no women's Greco Roman wrestling, played a part in the IOC board's recommendation to drop both Greco-Roman and freestyle disciplines from the 2020 program. Huynh said she's been asked to be a part of a women's advisory council for the sport.

(c) Wrestling will return, more sports possible, says Oswald (Reuters)

International Olympic Committee (IOC) presidential

hopeful Denis Oswald distanced himself from the body's current leadership. The ancient sport, part of all Games since 1896 apart from the 1900 Olympics, would no doubt win back its games spot after make a three-sport shortlist for inclusion in 2020. Baseball/ softball and squash are the other two shortlisted sports and the IOC will elect one winning sport at its session in Buenos Aires in September. IOC President Rogge said last week the organization had made no mistake in the controversial affair.

More Sports

Oswald said that despite an IOC cap of 28 sports he could see more sports joining in the future if existing ones reduced events that were not "universally" popular or the number of athletes.The IOC started the process of revamping the Games to keep up with a younger audience but could now end up voting back in the same sport it excluded months ago and making no change to the Games program from the 2020 Olympics onwards.

(d) Olympics-Russia's Putin backs Olympic return for wrestling

Russian President Vladimir Putin backed a return to the Olympics for wrestling; it was one of the fundamental sports of the Games. Wrestling was controversially taken off the 2020 Olympics programme by the International Olympic Committee but was thrown a lifeline, making a shortlist along with squash and baseball/softball for one spot at the 2020 Games.

"I know that the final decision will be made later. But now we have decided on the three sports, there is also wrestling, a favorite in 209 countries around the world," "Hopefully, the decision will ultimately be fair, reasonable and will serve to strengthen and develop the Olympic movement, which was based always on ancient tradition, and wrestling as we know, is one of the fundamental sports, traditional for the Olympic Games,".

5. Olympics-Wrestling's shortlist return was no error –IOC

A shock International Olympic Committee (IOC) decision to remove wrestling from the 2020 Olympic Games programme and then include it in a shortlist of sports for those Games was no mistake, IOC president Jacques Rogge said.

Wrestling was taken off the programme in a move

Figure 3. Associated Press/ Dmitry Lovetsky - IOC President Jacques Rogge, right, and IOC member Franco Carraro, of Italy, attend the IOC executive board meeting at the Sport Accord International Convention in St.Petersburg, Russia, Wednesday, May 29, 2013. (AP Photo/ Dmitry Lovetsky)

Figure 4. Five of wrestling's biggest ambassadors, all Olympians themselves, made the case to the IOC on why their sport should remain in the Olympic games. From left to right, Lise Legrand – VP French Wrestling Federation, NenadLalovic – FILA President, Carol Huynh – 2008 gold and 2012 bronze medalist, Daniel Igali – first Canadian to win gold, Jim Scherr – former head USA Wrestling and USOC. Photo courtesy FILA-official.com

that stunned the sporting world but it managed to join baseball/softball and squash this week as one of three sports that will be considered for inclusion in the 2020 Games. The IOC will elect the winning sport at its session in Buenos Aires in September.

Olympic Change

"There was a need to put a cap on the size of the Games but we felt we could not freeze the programme and we needed change." Rogge said the IOC's decision to exclude wrestling, which had been in every Game since 1896 apart from 1900, was right as it prompted immediate changes within the federation and the sport. He shrugged off suggestions that a return of wrestling to the Games at the IOC session in Buenos Aires would defeat the purpose of the exercise.

Wrestling among three sports (Wrestling, squash and baseball/ softball) recommended for inclusion in 2020 Olympic Games

The battle to save Olympic wrestling is not over, but the first major challenge to getting back in the Games has been cleared.In a vote in St. Petersburg, Russia, the Executive Board (EB) of the International Olympic Committee (IOC) recommended three sports to be shortlisted for inclusion in the 2020 Games: wrestling, baseball and softball and squash. A final vote will be held by the entire 100-member IOC General Assembly in its meeting in Buenos Aires, Argentina in September in Buenos Aires, Argentina, where the three final sports will present their case before the IOC General Assembly. Only one sport can be introduced into the 2020 Games. The full IOC membership will meet for the 125th Session in Buenos Aires, Argentina from 7 to 10 September and will vote on which of the three sports to add to the programme of the Games of the XXXII Olympiad.

III CONCLUSION

Because of growing costs, the International Olympic Committee (IOC) has been under pressure to reduce the number of events and the number of athletes in each summer game. The IOC has adopted a system where "core sports" would continue indefinitely in future Olympics, but "non-core" sports would be selected for inclusion on an Olympic game-by-game basis. Currently, wrestling is one of the 26 core sports. However, following the London Olympics, the IOC's Executive Committee conducted a study of the 26 core sports in terms of their success at the London Olympics as well as world-wide grassroots support. The study sought to trim one core sport so that starting with the 2020 Olympics, only 25 core sports would continue to make room for one non-core sport. On February 12, 2013, the IOC Executive Board voted to recommend that wrestling be dropped as a core sport. The International Olympic Committee (IOC) recommended three sports to be shortlisted for inclusion in the 2020 Games:

wrestling, baseball and softball and squash.Reasoning for the decision was an analysis of more than three dozen criteria including "popularity, finances, tickets sold and governance." It is still possible that wrestling will get back into the Olympic rotation.The full IOC membership will meet for the 125th Session in Buenos Aires, Argentina from 7 to 10 September and will vote on which of the three sports to add to the programme of the Games of the XXXII Olympiad.

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"Do you know what my favorite part of the game is? The opportunity to play."
— Mike Singletary

"If at first you don't succeed, you are running about average." —M.H. Alderson

"How you respond to the challenge in the second half will determine what you become after the game, whether you are a winner or a loser." —Lou Holtz

"Good is not good when better is expected." —Vin Scully

"The difference between the impossible and the possible lies in a person's determination."
—Tommy Lasorda

"Champions keep playing until they get it right." —Billie Jean King

Prof. (Dr.) Biswajit Basumatary

Dean
LNIPE, NERC, Guwahati

Sport and the Media

INTRODUCTION

The media has an important and growing role in the culture of developed countries. As leisure time has expanded and access to radio and television has become almost universal, not only in the home but also in cars and in pubs and clubs, so the demand for material with which to fill the burgeoning number of media outlets has grown. The expansion of leisure has also led to an upsurge in public interest in sport, and a corresponding growth in the commercial success of major sports clubs and organisations. Manchester United. Real Madrid and the New York Yankees are no longer simply sports clubs but global brands.

If media organisations are to remain successful in an extremely competitive market, they must reflect such movements in our culture and in the interests of their consumers. Indeed, the media not only reflect the culture in which they operate and the interests of their readers and viewers: they help to form that culture and those interests.

Media Influence on Sport

Much of the recent growth of interest in sport has been driven by the media, in particular satellite television, which has bought the rights to major sporting events and promoted them vigorously as one of the most effective ways of selling subscriptions to its services. To compete, terrestrial television (and radio) channels have had to follow suit. This has driven up the cost of media rights and vastly increased the income of sports clubs, governing bodies and professional sports men and women. It has been the major factor in turning many sports clubs into big businesses.

But the money television has put into sport has also given it the power to shape sports to its own ends. Beginning with the introduction by the Australian media mogul Kerry Packer of floodlit international cricket in the 1970s, television went on to fuel the massive growth of interest in soccer worldwide and the expansion of competitions like the European Champions League. It has even turned the traditions of some sports on their heads. Rugby League, a winter game in England for more than a century, has now: become a summer sport, for the benefit of the broadcasters. Television has turned sport into a commodity and a sales tool. Sport's influence on the media

Media organisations have grown and adapted accordingly. New radio stations and television channels have been set up devoted specifically to sport. They have developed radical new programmes such as sports phone-ins and rolling results services to attract and maintain viewers and listeners.

There has been a similar growth in specialist and lifestyle publications aimed at specific sections of the media audience, such as young men. They have carved out niche markets, either by covering sport in general or by devoting themselves to individual sports.

Newspapers throughout the developed world are devoting more and more space to sport. This is partly in response to the general upsurge of interest in sport, which is common to all socio-economic classes, and partly because newspapers recognise the influence of television on people's lives, and try to reflect it in there own coverage. The fact that multi-national media organisations like Rupert Murdoch's International Media Group own both satellite television networks and newspapers has undoubtedly influenced the promotion of televised sport in those newspapers. And even those newspaper groups which do not have a stake in television have been forced to pay greater attention to televised sport because their readers subscribe to satellite television channels and have come to expect that service.

With the arrival of the internet, a number of websites devoted to sport were set up by organisations who sought to support them through advertising and by selling online services As with other online ventures, many of these proved to be unsustainable, and the bursting of the dot.com bubble was followed by a period of consolidation. Many of these sites are now in the ownership of online betting companies, who use the sports content of the sites as bait to attract customers. The best and most successful websites are those operated by established media organisations such as the BBC, and by sports clubs and organisations which use the web as a marketing tool.

Official Information

Sports journalism is a two-way process. The media clearly need information to fill their pages and bulletins, but sporting organisations also need publicity to attract crowds to their events and to buy their merchandise. The best sort of publicity is free and the media have a vested interest in providing it for them.

Most professional sports clubs and bodies employ Press or Public Relations officers whose job it is to deal with media inquiries and ensure that a regular flow of information about their clubs and the individuals who work for them reaches the media. Although this may seem like media manipulation, the demand for media access is often so great that an organisedresponse is the only sensible way of dealing with it. It also ensures equal access for all journalists.

The top clubs provide journalists with glossy media guides at the start of each season. Press officers supplement these with regular press releases about forthcoming events. These are now mostly sent by e-mail and made available on websites. They will

include information on players being transferred into or our of a club, injuries and suspensions to players, the coach's views on forthcoming matches, team selection, interviews with players, and post-match quotes and verdicts from coaches and key players. They may also deal with non-playing matters like ground improvements or redevelopments and ticket availability and prices. Most major clubs produce at least one press release a day, even in the close-season, to try to keeps their activities regularly in the public eye.

This information is also made available—sometimes before it is officially released to the media—on club websites. These also include useful background information such as squad lists and career details of individual players, statistics, fixtures, directions for getting to the stadium and to away grounds, and a club history. Journalists should always check the websites of both clubs before covering a match: many of the fans will have done so. and journalists should always know at least as much as their audiences.

Direct access to coaches and players is usually made available regularly to journalists, who have privileged access to club training grounds and are usually allowed to approach players after training sessions have ended. Coaches will normally hold press conferences a couple of days before a match to answer questions and give details of injuries and team selection.

SPONSORS

Another group of people keen to keep their names in the public eye are sponsors. Sponsorship plays a major role in the finances of most sports, and is the main source of income in some. In return for putting money into clubs, individual athletes or organisations, sponsors expect to see their names on shirts and on the backdrops to photographic and television sessions. Many of them also spend a great deal of money and effort in making sure the sport with which they are associated receives the highest-possible profile, and this means making journalists' lives as easy as possible.

Companies which sponsor leagues, for instance, will provide journalists with detailed, pre-season press packs, often packaged in useful shoulder-bags which can be taken to matches. This is backed up with a weekly news and statistics service, made available to reporters in the press boxes of every venue at which games are staged, and sent to the sports desks of media organisations.

The sponsors of English soccer's Premier league, for instance, produce an information pack each Saturday which gives an overview of the weekend's matches. It also includes a full-page statistical preview of each game, full squad lists with the number of appearances made by each player and goals scored by them. It contains the results of both clubs recent matches, the results of games between the two clubs in the last few seasons, the cumulative history of matches between the two sides, and the leading scorers of each club. The statistics go into fine detail, such as the average number of goals scored and conceded per game by each club, the number of corners won per game, the average time at which they score or concede goals and the average number of shots on and off target per game. Goalscoring is scrutinised in minute detail, with analyses of how many are scored with the left foot, right foot or head, how many from open play, from crosses, comers, penalties, direct from free kicks or indirectly, and own goals. There are also lists of players who have had the most shots, the most on target, the most off target, assists, crosses, offsides, fouls and free kicks won.

The pack also includes team statistics and current form for each team in the Premiership, the records of referees in issuing red and yellow cards, a fixture and results grid for the league, the latest league table, a list of leading scorers, and details of how many games each club has gone since winning, losing, drawing, scoring or failing to score.

Even the most demanding journalist could not ask for more, yet all this is supplemented at the stadium by the home club's match-day programme, which contains the manager's comments, reports on recent matches, player profiles, injury updates, comment columns, club

news, profiles of opposition players and more detailed statistics on both sides. Jourrnalists are also given a team-sheet listing the players, substitutes and officials for the game. Some clubs also provide their own statistics and copies of press reports of their recent activities.

Sponsors of big one-off events like the Olympic Games have press officers based at the venues to supply a steady stream of information to the media. Those involved with mobile events such as the Tour de France cycle race or Formula 1 motor racing make complex arrangements for servicing the needs of huge numbers of journalists who are moving from town to town in pursuit of the race, or from country to country.

When there's a lull in the sporting action, sponsors will stage off-field publicity events, such as manager of the month awards, to which the media are invited.

The 7 golden rules-remember these, if nothing else.....

1. Know what the interview is about. Don't go into an interview cold. Find out why a reporter is calling, give yourself time to prepare, and then call back.
2. Have a message. Once you know the subject of the interview, prepare three to five key points you want to make.
3. An interview is not a conversation. The media are your conduit to the public. Speak to the public, not the reporter. Be friendly, but remember that interviews are how reporters conduct business.
4. There's no such thing as off the record. An "off the record" comment may not be attributed to you, but that doesn't mean it won't appear in the paper or be used to confirm information.
5. Keep it simple. Nothing ruins an interview faster than long, complex explanations. If you want your message conveyed, be sure to say it simply.
6. Be brief. Practice answering questions in 20 seconds or less. Chances are the reporter will use the first decent 20-second comment and skip much of the rest.
7. Tell the truth. Don't lie and don't guess.

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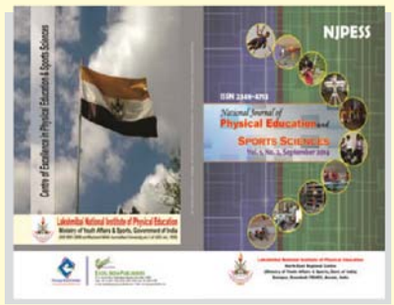

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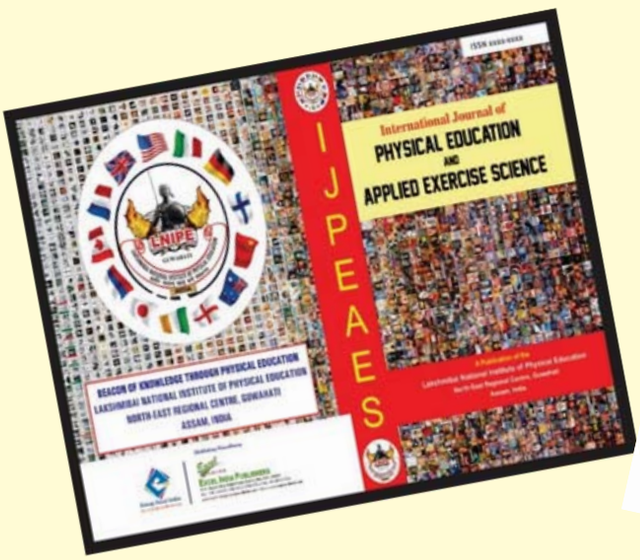

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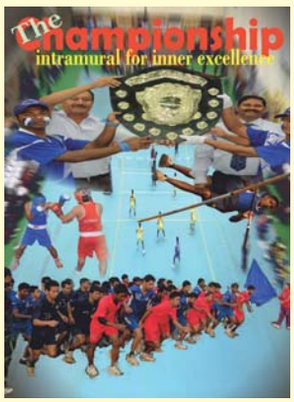

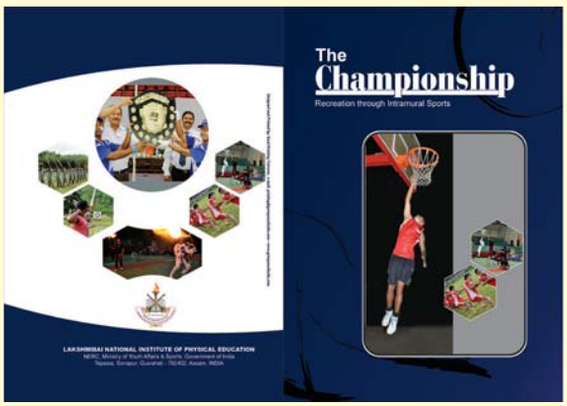

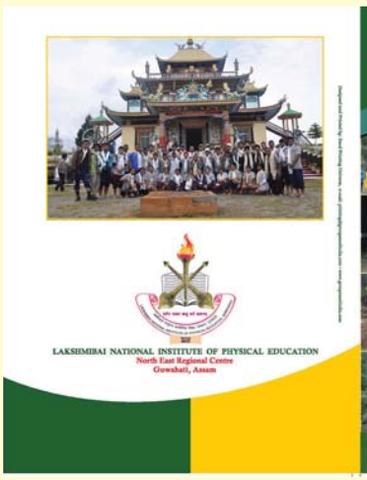

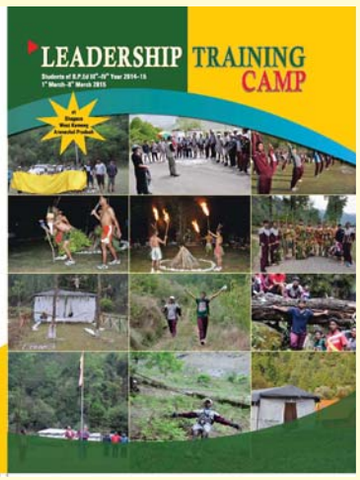

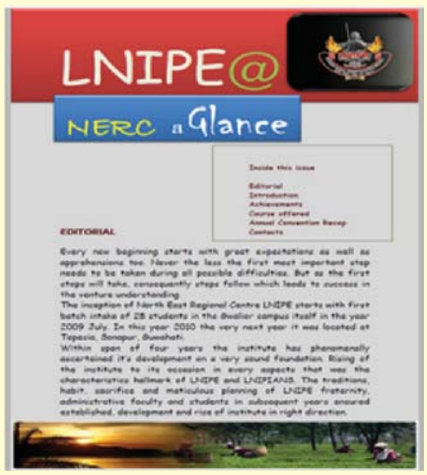

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